USCGC MUNRO (WMSL 755)

SPECIFICATION FOR DOCKSIDE REPAIRS

FY2027

Developed By: SFLC LREPL

(REV-1, 09 July 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-1) 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 OF POSTED AMENDMENT	REV#	WORK ITEM#	CHANGES MADE
07/09/2026	1	4	CIR requirement for 3.6 removed.
07/09/2026	1	13	CIR requirement added to 3.1.1 • 3.7 Inspection
06/24/2026	1	2	3.1.9 Clarify KTR requirement to provide crane, rigging, and transport services to renew the Allied Dual Point Davit.
06/24/2026	1	7	Confirmed Table-1 Passageway 1-23-1-L is 170sqft
06/24/2026	1	16	3.1.10 Work coordination clarification
6/24/2026	1	6	3.1.4 Interferences. USCG Does not know the Make/Model of the Roller Door.

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 26B-CB-IV-801-001, Rev -, Booklet of General Plans

Coast Guard Drawing 35-LRI-II-801-001, Rev -, General Arrangement

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 418A-WMSL_100_6, Rev A, Inboard and Outboard Profiles

Coast Guard Drawing 418A-WMSL_180_3, Rev C, SS-1-69-2 Fan Fdn Modifications

Coast Guard Drawing 418A-WMSL_512_3, Rev C, HVAC Modifications for Dry Provisions Stowage Mods

Coast Guard Drawing 418A-WMSL_528_1, Rev A, Plumbing and Interior Deck Drain Diagram

Coast Guard Drawing 418A-WMSL_540_1, Rev C, Fuel Oil Diagram

Coast Guard Drawing 418A-WMSL_540_2, Rev A, Diesel Eng And Gas Turb LO Fill, Trans, & Service Sys

Coast Guard Drawing 418A-WMSL_551_1, Rev A, Compressed Air Diagram

Coast Guard Drawing 418A-WMSL_556_3, Rev A, Bow Thruster HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_4, Rev -, Anchor Windlass HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_5, Rev -, GT Hydraulic Start HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_6, Rev-, Stern Gate HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_583_1, Rev -, Folding Boom Crane HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_593_6, Rev -, Reroute Sewage Piping iwo Dry Provisions Rm

Coast Guard Drawing 418A-WMSL_672_2, Rev D, Dry Provisions Storeroom Modifications

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750 WMSL_100_530, Rev F, Modifications incidental to the installation of Allied Dual Pont Davit (HAMILTON, JAMES & MUNRO).

Coast Guard Drawing 750-WMSL_100_11, Rev J, Unit 1110 Structure – Inner Bottom, 1st Platf & 2nd Deck – Bow to Fr 10 (ASC100111)

Coast Guard Drawing 750-WMSL_100_12, Rev K, Unit 1120 Structure - Main Deck to 01 Level - Bow to Fr 10 (ASC100112)

Coast Guard Drawing 750-WMSL_100_13, Rev L, Unit 1210 Structure – Inner Bottom To 1st Platform – Fr 10 to Fr 22 (ASC100121)

Coast Guard Drawing 750-WMSL_100_16, Rev J, Unit 1240 Structure - Main Deck to 01 Level - Fr 9 to Fr 22 (ASC100124)

Coast Guard Drawing 750-WMSL_100_18, Rev L, Unit 1320 Structure – 1st Platform To 2nd Deck-Fr-22 To Fr 35 (ASC100132)

Coast Guard Drawing 750-WMSL_100_20, Rev K, Unit 1340 Structure - Main Deck to 01 Level - Fr 22 to Fr 35 (ASC100134)

Coast Guard Drawing 750-WMSL_100_21, Rev F, Unit 2100 Struct – Inner Bottom – Fr 35 to Fr 44 (ASC100210)

Coast Guard Drawing 750-WMSL_100_23, Rev J, Unit 2120 Structure – 1st Platf to 2nd Deck Fr 35 to Fr 44 (ASC100212)

Coast Guard Drawing 750-WMSL_100_30, Rev M, Unit 2240 Structure - Main Dk to 01 Lvl - Fr 44 to Fr 52 (ASC100224)

Coast Guard Drawing 750-WMSL_100_36, Rev N, Unit 3110 Structure 1st Platform and Below Frs 65-77 (ASC100311)

Coast Guard Drawing 750-WMSL_100_37, Rev H, Unit 3120 Structure – 1st Platf to 2nd Dk- Fr 64 to Fr 76 (ASC100312)

Coast Guard Drawing 750-WMSL_100_40, Rev M, Unit 3210 Structure – Inner Bot To 1st Platform – Fr 76 To Fr 88 (ASC100321)

Coast Guard Drawing 750-WMSL_100_43, Rev L, Unit 3240 – Main Deck To 01 Level – Fr 76 To Fr 82 (ASC100324)

Coast Guard Drawing 750-WMSL_100_44, Rev K, Unit 3320 Struct – Inner Bottom – 2nd Deck Fr 89-98 (ASC100332)

Coast Guard Drawing 750-WMSL_100_45, Rev K, 2nd Dk to Main Dk - Fr 82 to Aft (ASC100333)

Coast Guard Drawing 750-WMSL_100_49, Rev L, Unit 4220 Structure - 02 Lvl and Above - Fr 33 to Fr 44 (ASC100422)

Coast Guard Drawing 750-WMSL_100_51, Rev J, Unit 4310 Structure – 01 Level to 02 Level – Frame 44 to Frame 52

Coast Guard Drawing 750-WMSL_100_52, Rev J, Unit 4320 Structure – 02 Level and Above – Frame 48 to Frame 53

Coast Guard Drawing 750-WMSL_100_53, Rev J, Unit 4420 Structure – 01 Level and above – Frame 52 to Frame 67

Coast Guard Drawing 750-WMSL_100_538, Rev -, Unit 4130 Structure 03 Level - Pilot House - WMSL 754 & Follow

Coast Guard Drawing 750-WMSL_100_83 Rev A, General Arrangements NSC5 & Follow

Coast Guard Drawing 750-WMSL_100_84, Rev -, Topside Configuration for NSC 6 & Follow

Coast Guard Drawing 750-WMSL_100_89, Rev A, Topside Configuration for NSC 8 and Follow (AS8100004)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

Coast Guard Drawing 750-WMSL_167_7, Rev C, Hatch & Scuttle List Ship Wide, NSC 3 and Follow (AS3167003)

Coast Guard Drawing 750-WMSL_202_501, Rev E, MCMS Remote Terminal Units Fire Zone No. 2 Deck Plan

Coast Guard Drawing 750-WMSL_300_2, Rev C, Electrical Standard Details (ASC300003)

Coast Guard Drawing 750-WMSL_320_22, Rev F, Power Operated Valve Deck Plan Wiring Diagram

Coast Guard Drawing 750-WMSL_320_4, Rev D, Power Sys Dk Plan - 1st Platf & Below, Fwd of Fr 36 & Aft of Fr 70 Cable Routing (ASC320003)

Coast Guard Drawing 750-WMSL_320_42, Rev C, Electrical One Line Diagram (NSC 6 SRD)

Coast Guard Drawing 750-WMSL_320_579, Rev -, Electrical Installations Iwo New Aft Folding Cranes

Coast Guard Drawing 750-WMSL_500_2, Rev E, Resilient Hanger Details & Installation (ASC500002)

Coast Guard Drawing 750-WMSL_501_2, Rev E, Machinery Arrangement

Coast Guard Drawing 750-WMSL_501_4, Rev D, Misc Independent Tanks Design and Details and L/M (ASC501004)

Coast Guard Drawing 750-WMSL_508_1, Rev C, Piping and Machinery Insulation Schedule and L/M (ASC508001)

Coast Guard Drawing 750-WMSL_512_534, Rev D, HVAC Equipment List

Coast Guard Drawing 750-WMSL_512_59, Rev D, HVAC Equipment List (ASC512004)

Coast Guard Drawing 750-WMSL_520_1, Rev H, Seawater Cooling System Diagram (ASC520001)

Coast Guard Drawing 750-WMSL_520_20, Rev B, Seawater Cooling System Diagram WMSL 750 Only

Coast Guard Drawing 750-WMSL_520_4, Rev E, Salt Water Cooling Unit 1320

Coast Guard Drawing 750-WMSL_520_504, Rev D, Seawater Cooling Piping Mods IWO Dual Point Davit Installation

Coast Guard Drawing 750-WMSL_520_506, Rev F, Auxiliary Seawater Piping Mods FWD of FR 52

Coast Guard Drawing 750-WMSL_528_15, Rev E, Plumbing & Interior Deck Drains and Vent System Unit 2110 (ASC528211-PD)

Coast Guard Drawing 750-WMSL_528_502, Rev -, Forward Gray Water Tank Transfer to Aft Tank

Coast Guard Drawing 750-WMSL_528_503, Rev A, Aft Gray Water Tank Strainer Install

Coast Guard Drawing 750-WMSL_528_504, Rev -, FWD Gray Water Tank Strainer Install

Coast Guard Drawing 750-WMSL_540_54, Rev B, Fuel Transfer Unit 4310

Coast Guard Drawing 750-WMSL_556_505, Rev -, Steering Gear Hydraulic Filter Cart Quick Connections

Coast Guard Drawing 750-WMSL_583_2, Rev D, Small Boat Starboard Handling System Arrangement & Details

Coast Guard Drawing 750-WMSL_583_508, Rev -, Installations IWO Aft Folding Cranes

Coast Guard Drawing 750-WMSL_583_518, Rev D, Hydraulic Piping Mods IWO Dual Point Davit Installation

Coast Guard Drawing 750-WMSL_600_30, Rev K, Fab & Instl of Hull Outfit Design, Unit 3140 (ASC600314)

Coast Guard Drawing 750-WMSL_631_2, Rev M, Paint Schedule (ASC631002)

Coast Guard Drawing 750-WMSL_634_1, Rev H, Deck Covering Schedule (ASC634001)

Coast Guard Drawing 750-WMSL_635_2, Rev K, Insulation Arr & Details Thermal, Acoustic, & Fire (ASC635002)

Coast Guard Drawing 750-WMSL_635_502, Rev -, Insulation Arr & Details Thermal, Acoustic, & Fire (WMSL 754 & Follow)

Coast Guard Drawing 750-WMSL_640_502, Rev -, Furniture Schedule (WMSL 754 & Follow)

Coast Guard Drawing 750-WMSL_85_25, Rev -, Compartment Areas & Volumes NSC 3 & follow (AS3085012)

Coast Guard Drawing 750-WMSL-100-040, Rev M, Unit 3210 Structure – Inner Bot To 1st Platform – Fr 76 To Fr 88 (ASC100321)

Coast Guard Drawing FL-1204-3, Rev A, Fleet Welded Padeyes And Links

Coast Guard Fleet Drawing FL_1702_11, Rev -, Inspection of Sheaves

NAVSEA Drawing 803-1385828, Rev P, Nozzles AFFF and Washdown Systems

NAVSEA Drawing 803-1623053, Rev -, Scuttle, WT, Raised, Quick Acting, 12 Dia 15 psi-Arrangement

NAVSEA Drawing 803-5184182, Rev B, Insulation, Passive Fire Protection- Installation Details

NAVSEA Drawing 804-5773931, Rev A, Acoustic & Thermal Insulation for Compartments Installation Details

NAVSEA Drawing 804-5959308, Rev -, Lifeline Systems

COAST GUARD PUBLICATIONS

American Society for Nondestructive Testing (ASNT), Recommended Practice No. SNT-TC-1A, 2020, Personnel Qualification and Certification in Nondestructive Testing

American Society for Nondestructive Testing (ASNT), Standard No. ANSI/ASNT CP-189-2020, 2020, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

American Welding Society (AWS) D1.1/D1.1M, 2020, Structural Welding Code – Steel

BOAT DAVIT - MODELS DDP11000CTS & SP2200 (S/N: 2328-753, 2329-751, 2332-750) - TECHNICAL MANUAL

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

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

Coast Guard Technical Publication (TP) 14025, Rev A, Apr 2025, Ship Service Diesel Generator Sets Caterpillar 3512B Marine Auxiliary Technical Manual Volume 1

Coast Guard Technical Publication (TP) 14025, SWBS 311, Nov 2022, Ships Service Diesel Generator Sets, Caterpillar 3512B Marine Auxiliary Technical Manual Volume I

Coast Guard Technical Publication (TP) 7119, Rev A, SWBS 311, Dec 2023, Ship Service Diesel Generators Model 3512B

Coast Guard Technical Publication (TP) 7368C, SWBS 311, Feb 2022, Ship Service Diesel Generators (SSDG) Model 3512B Parts Manual

Coast Guard Technical Publication (TP) 7902, “Preliminary’ Dual Point Davit – Models DDP11000CTS & SP2200 (S/N – 2313 & 2315) We need the serial number of the new Davit

Coast Guard Technical Publication (TP) 7903, SWBS 583, Oct 2021, Aft Boat Handling System –Model FB90-28

Coast Guard Technical Publication (TP) S9514-F1-MMA-010, SWBS 514, Jun 2020, Air Conditioning Plant - 130-Ton Capacity, HFC-134A - Description, Operation & Maintenance - REV 2

Fire Prevention and Response

MIL-PRF-1149E, 2019, Gasket Materials, Synthetic Rubber, 50 and 65 Durometer Hardness

MIL-PRF-900, 2020, Rubber Gasket Material, 45 Durometer Hardness

MIL-STD-1689A, 1990, Fabrication, Welding, and Inspection of Ships Structure

NOTE

OTHER REFERENCES

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 0850 (SFLC Std Spec 0850), 2022, General Requirements for Drawing Preparation

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 5000 (SFLC Std Spec 5000), 2022, Auxiliary Machine Systems

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

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

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Bare Metal Power Tool Cleaning

OTHER REFERENCES

Allied Systems Drawing Number 68992, 2013, General Arrangement

Allied Systems Drawing Number 70082, 2013, Installation Drawing

American National Standards Institute (ANSI/EASA) AR100, 2020, Recommended Practice for the Repair of Rotating Electrical Apparatus

American Society for Nondestructive Testing (ASNT), Recommended Practice No. SNT-TC-1A, 2024, Personnel Qualification and Certification in Nondestructive Testing

American Society for Nondestructive Testing (ASNT), Standard No. ANSI/ASNT CP-189-2024, 2024, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

American Welding Society (AWS) B1.10M/ B1.10, 2016, Guide for Nondestructive Examination of Welds

American Welding Society (AWS) B1.11M/B1.11, 2015, Guide for the Visual Examination of Welds

American Welding Society (AWS) D1.1/D1.1M, 2025, Structural Welding Code – Steel

ASTM Internationals (ASTM) G46, 2018, Standard Guide for Examination and Evaluation of Pitting Corrosion

Caterpillar Application and Installation Guide, EMCP 4.1, 4.2 Generator Set Control

Code of Federal Regulations (CFR) Title 29, Part 1910, 2017, Occupational Safety and Health Standards

Code of Federal Regulations (CFR) Title 29, Part 1915, 2013, Occupational Safety and Health Standards for Shipyard Employment

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

Code of Federal Regulations (CFR) Title 40, 2013, Protection of the Environment

International Standards Organization (ISO) 4406, 1996, Hydraulic Fluid Power – Fluids – Method for Coding the Level of Contamination by Solid Particles

Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), SP-58, 2018, Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application and Installation

MIL-C-24757, Nov 1990, Cloth, Fiberglass, Coated

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

MIL-DTL-15024, Nov 1997, Plates, Tags and Bands for Identification of Equipment

MIL-DTL-32585A w/ Amendment 1, 2023, Insulation, Thermal and Acoustic, Fibrous Glass

MIL-PRF-24176C, 2020, Cement, Epoxy, Metal Repair and Hull Smoothing

MIL-PRF-24613, Dec 1990, Deck Covering Materials, Interior, Cosmetic Polymeric

MIL-PRF-24667D, 2021, Coating System, Non-Skid, for Roll, Spray, or Self-Adhering Application

MIL-STD-1689A, 1990, Fabrication, Welding, and Inspection of Ships Structure

Naval Sea Systems Command (NAVSEA) 0640-LP-119-0175, 2019, NAVSEA OP 4 Rev 12, Ammunition and Explosives Safety Afloat

Society of Automotive Engineers (SAE) J1273, 2009, Recommended Practices for Hydraulic Hose Assemblies

Society of Automotive Engineers (SAE) J1475, 2009, Hydraulic Hose Fittings for Marine Applications

Society of Automotive Engineers (SAE) J1942/1, 2010, Qualified Hoses for Marine Applications

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.1 (SSPC-SP 1), 2016, Solvent Cleaning

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Bare Metal Power Tool Cleaning

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.3 (SSPC-SP 3), 2024, Power Tool Cleaning

The Society for Protective Coatings (SSPC)/NACE International (NACE) Joint Surface Preparation Standard SSPC-SP 10 (WAB)/NACE WAB-2, 2015, Near-White Metal Wet Abrasive Blast Cleaning

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)
1	N	Resilient mount type 6E2000 Mil Spec MIL-M-17508, Barry Controls 3114-4Â	NSN: 5342-00-598-8825Â	18 ea.	460.00
2	N	Allied Systems Dual Point Davit with Control Console	DDP11000CTS & SP2200 NSN:2030- 016306123	1 ea.	480,000
2&3	Y	*CB-OTH Mark IV (CG Drawing 26B-CB-IV-801-001)	N/A	1 ea.	N/A
3	Y	*Long Range Interceptor II (LRI-II) Cutter Boat (CG Drawing 35-LRI-II-801-001)	N/A	1 ea.	N/A
3	N	Filter, Return (HPU) for Item 9	4330-01-520-6778 / YMD-8861-R (18LZ5)	1 ea.	101
3	N	Filter, Return (HPU) for Item 19	2940-01-670-3448 / YMD-10416-R (8ZZ5)	1 ea.	78
3	N	Filter, Pressure (#2 & #4 Cranes)	2590-01-693-8313 / YMD-12209-R	4 ea.	1017
3	N	Filter, Pressure (#3 Crane)	4330-01-694-1197 / YMD-12234-R	1 ea.	615
3	N	Filter, Breather (HPU)	2815-01-624-2316 / YMD-12201 (D-AB-2)	1 ea.	77
4	Y	CRANKSHAFT	NSN: 2815-01-511-2837 PN: 128-6786	1	42,164.08
4	N	WIRING HARNESS	PN: 445-7604	1	5,000.00
4	N	WIRING HARNESS	PN: 445-7605	1	5,000.00
4	N	WIRING HARNESS	PN: 260-0003	1	5,000.00
4	Y	CYLINDER PACK	PN: 10R-4343	12	2,986.49
4	Y	TURBOCHARGER	NSN: 2950-01-505-2590 PN: 509-1016	2	12,649.08
4	Y	FUEL INJECTORS	NSN: 2910-01-576-1910 PN: 392-0217	12	1979.73
4	N	VULKAN COUPLING	PN: 2X4103A003	1	4,515.00
4	Y	HEAD GP-CYL BSC	PN: 3356220	12	2,732.87
4	N	SEAL-O-RING	NSN: 5330-01-517-8234 PN: 0336031	3	1
4	Y	ROCKER ARM AS	NSN: 2815-01-517-8234 PN: 2816159	12	242.69
4	Y	ROCKER ARM AS	NSN: 2815-01-521-1641 PN:	24	185.36

			2302621		
4	Y	DAMPER GP-BASIC	PN: 1463740	1	9,516.38
4	Y	SPRING-INJECTOR	NSN: 5360-01-506-9425 PN: 1003878	12	45.14
4	N	BEARING-CAMSHAFT	PN: 1011198	14	64.52
4	N	PLATE-THRUST	PN: 1011365	1	36.53
4	N	WASHER-THRUST	NSN: 3120-01-517-8256 PN: 1011368	2	1
4	N	BUSHING	PN: 1011372	1	71.91
4	N	SEAL-O-RING	NSN: 5331-01-419-3124 PN: 1092332	6	27.91
4	N	SEAL-O-RING	NSN: 5331-01-477-1958 PN: 1097411	2	40.68
4	Y	LIFTER AS	PN: 2827944	12	273.23
4	N	SEAL-O-RING	PN: 1123102	4	6.28
4	N	GASKET	NSN: 5330-01-506-6825 PN: 1228856	2	2.74
4	N	BUSHING	PN: 1259751	2	53.86
4	N	SEAL-INTEGRAL	NSN: 5331-014771961 PN: 1272176	12	6.34
4	N	BUSHING	NSN: 3120-01-464-9251 PN: 1275400	2	47.50
4	N	HARNESS AS-WIRING	NSN: 6150-01-508-1233 PN: 1326469	12	17.15
4	N	SEAL-O-RING (WAS 6V4589)	PN: 1367227	4	6.67
4	N	SHIELD AS-EXHAUST	PN: 1406468	1	727.43
4	N	SHIELD AS-EXHAUST	PN: 1406469	1	754.38
4	N	BUSHING	PN: 1409597	2	76.14
4	N	HOSE-ELBOW	NSN: 4730-01-507-1292 PN: 1417143	1	14.67
4	N	GASKET-PLATE	PN: 1445692	12	23.22
4	N	SEAL-PLATE	PN: 1492209	65	101.13
4	N	SEAL-RING	PN: 1515257	2	104.57
4	N	BUTTON	NSN: 2815-01-517-8778 PN: 1546389	36	10.09
4	Y	PUMP AS-FUEL PRIMING	PN: 1623906	1	324.77
4	N	GASKET	NSN: 5330-01-521-3861 PN: 1637826	1	5.50
4	N	HOSE AS	PN: 1874606	1	66.34
4	N	SEAL-O-RING	NSN: 5331-00-580-1226 PN: 1H9696	1	0.63
4	N	BELLOWS AS	PN: 2071364	10	774.65
4	N	BELLOWS AS	PN: 2071390	2	636.94
4	Y	LIFTER AS-VALVE	PN: 5744543	24	273.48

4	N	SEAL-O-RING	PN: 2147566	12	4.54
4	N	SEAL-O-RING	NSN: 5331-01-513-5210 PN: 2147568	40	3.56
4	N	HOSE-TEE	PN: 2176692	1	72.40
4	N	SEAL-O-RING	PN: 2287090	2	5.44
4	N	SEAL-O-RING	PN: 2287097	1	15.89
4	N	GASKET	NSN: 5330-01-584-5361 PN: 2301072	2	2.23
4	Y	SHAFT AS	PN: 2302633	12	315.13
4	Y	GEAR-FLYWHEEL	PN: 2330643	1	1161.30
4	N	SEAL-INTEGRAL	NSN: 5330-01-066-5364 PN: 2348937	2	21.34
4	N	SEAL-O-RING	NSN: 5331-01-521-3862 PN: 2353546	3	27.63
4	N	SEAL-O-RING	PN: 2385080	3	5.92
4	N	SEAL-O-RING	PN: 2385081	13	6.67
4	N	SEAL	PN: 2407032	12	69.21
4	N	GASKET	NSN: 5330-01-524-2224 PN: 2415928	12	2.34
4	N	GASKET	PN: 2416236	1	4.82
4	N	GASKET	NSN: 5330-01-584-5312 PN: 2432288	4	8.50
4	N	SEAL-O-RING (WAS 125-9794)	PN: 2594598	1	28.16
4	N	SEAL-O-RING (was 3P-0654)	NSN: 5330-00-367-5657 PN: 2594600	1	2.25
4	N	SENSOR GP-TEMPERATURE	PN: 2639597	12	817.36
4	Y	BRIDGE FLOAT	NSN: 6115-01-555-8293 PN: 2657537	12	46.79
4	Y	BRIDGE FLOAT	NSN: 6115-01-555-8294 PN: 2657538	12	34.48
4	N	HOSE	PN: 2693129	1	41.09
4	N	SEAL-O-RING (was 3P-0655)	NSN: 5331-01-352-9338 PN: 2697885	3	1
4	N	SEAL	NSN: 5330-015066835 PN: 2720758	12	20.90
4	N	SEAL	PN: 2720759	12	30.60
4	N	SEAL-VALVE COVER	PN: 2720760	12	29.10
4	N	SHIELD	PN: 2843920	2	171.25
4	N	SEAL-O-RING	NSN: 5331-015872007 PN: 2986387	1	31.60
4	N	LOCKNUT	PN: 2K4973	4	0.70
4	N	LOCKNUT	PN: 2N2766	4	7.27
4	N	GASKET	NSN: 5330-012098048 PN: 2W0752	2	1.77
4	N	GASKET	PN: 3094550	1	238.81

4	N	HOSE AS	PN: 3095088	1	75.46
4	N	SEAL-O-RING (was 7X-1547)	PN: 3103954	1	33.26
4	N	SEAL-O-RING (was 6J-2245)	PN: 3237347	12	6.54
4	N	GASKET-CYLINDER HEAD	PN: 3628264	12	78.79
4	N	GASKET-HEAT EXCHANGER	NSN: 5330-00-074-3505 PN: 3H5939	1	4.38
4	N	SEAL-O-RING	NSN: 0000-XF-C34-9124 PN: 3J1907	3	1
4	N	SEAL-O-RING	NSN: 5331-01-049-1292 PN: 3J7354	2	0.16
4	N	SEAL-O-RING	NSN: 5331-00-948-6482 PN: 3K0360	5	0.84
4	N	GASKET	NSN: 5330-01-021-9052 PN: 3P6061	1	6.66
4	N	SEAL AS-WATER	PN: 4200652	48	3.93
4	N	SEAL AS-WATER	PN: 4200653	48	4.57
4	N	GASKET	PN: 4289129	12	62.71
4	N	GASKET	NSN: 5331-01-655-6797 PN: 4289130	20	70.67
4	N	SEAL-O-RING (was 6V-4368)	PN: 4477206	4	17.49
4	Y	CAMSHAFT AS	PN: 4522501	1	4,055.19
4	Y	CAMSHAFT AS	PN: 4522502	1	3,721.33
4	Y	CAMSHAFT AS	PN: 4522503	1	4,055.19
4	Y	CAMSHAFT AS	PN: 4522504	1	3,778.94
4	N	GASKET (was 8N-9885)	PN: 4973911	2	15.08
4	N	GASKET-COPPER	PN: 5310-00-246-0266 PN: 4B8407	8	1.52
4	N	SEAL-O-RING	NSN: 5331-00-599-0936 PN: 4F7387	1	3.05
4	N	GASKET	NSN: 5330-013984225 PN: 4H7869	3	5.01
4	N	GASKET	NSN: 5330-01-053-4834 PN: 4N1320	2	2.81
4	N	SEAL-O-RING	NSN: 0000-XF-C36-0329 PN: 4S5898	12	1
4	N	SHIELD AS-EXHAUST (was 143-0504)	PN: 5051567	1	707.94
4	N	SHIELD AS-EXHAUST (was 143-0505)	PN: 5051568	1	1,268.79
4	N	PLATE-SPACER	PN: 5197297	12	385.38
4	N	SEAL	PN: 5328532	4	25.40
4	N	HOSE AS	PN: 5755643	2	76.57

4	N	SEAL-O-RING	NSN: 5331-00-576-5291 PN: 5B4399	1	4.31
4	N	SEAL-O-RING	NSN: 5331-00-165-1961 PN: 5D5957	9	1.40
4	N	SEAL-O-RING	NSN: 5331-01-317-9502 PN: 5P0840	27	5.29
4	N	HOSE	PN: 5P1469	5	0.60
4	N	SEAL-O-RING	NSN: 5331-01-036-8537 PN: 5P4892	7	12.11
4	N	SEAL-O-RING	NSN: 5331-01-045-5605 PN: 5P5846	1	1.13
4	N	SEAL-O-RING	NSN: 5330-01-273-1535 PN: 5P7530	12	9.18
4	N	SEAL-O-RING	NSN: 5331-01-351-5348 PN: 5P7818	1	25.03
4	N	SEAL-O-RING	NSN: 5331-01-317-9503 PN: 5P8210	2	8.90
4	N	BOLT-HIGH TEMPERATURE	PN: 5P8880	4	10.84
4	N	GASKET	NSN: 5330-00-297-6548 PN: 6F4868	2	3.82
4	N	SEAL-O-RING	PN: 6J2680	7	4.43
4	N	SEAL-O-RING	NSN: 5331-01-287-6293 PN: 6K6307	1	7.50
4	N	SEAL-BONDED	PN: 6V0405	4	4.20
4	N	SEAL-O-RING	NSN: 5331-01-004-5034 PN: 6V1454	2	0.88
4	N	SEAL-O-RING	PN: 6V3348	11	9.81
4	N	SEAL-O-RING	NSN: 5331-01-005-3702 PN: 6V3907	6	3.86
4	N	SEAL-O-RING	PN: 6V3908	1	29.21
4	N	SEAL-O-RING	NSN: 5331-01-317-9507 PN: 6V3917	4	37.75
4	N	SEAL-O-RING	NSN: 5331-00-020-0203 PN: 6V5048	9	0.25
4	N	SEAL-O-RING	NSN: 5331-01-351-2742 PN: 6V5064	2	7.50
4	N	SEAL-O-RING	NSN: 5331-01-317-9504 PN: 6V5066	5	5.84
4	N	SEAL-O-RING	NSN: 5330-01-303-3824 PN: 6V5101	13	25.92
4	N	SEAL-O-RING	NSN: 5331-01-429-4566 PN: 6V5103	4	41.55
4	N	SEAL-O-RING	PN: 6V6228	36	7.92
4	N	SEAL-O-RING	NSN: 5331-014132754 PN: 6V6609	2	1.25
4	N	SEAL-O-RING	PN: 6V8001	1	23.33
4	N	SEAL-O-RING	NSN: 5331-01-483-9434 PN: 6V8002	1	25.25

4	N	SEAL-O-RING	NSN: 5330-00-143-8562 PN: 6V8260	1	1
4	N	SEAL-O-RING	NSN: 5331-01-317-9506 PN: 6V9027	1	1.16
4	N	SEAL-O-RING	NSN: 5331-01-352-9337 PN: 6V9769	12	2.55
4	N	WASHER AS-THRUST	NSN: 3120-01-322-6009 PN: 7C3258	2	117.36
4	Y	VALVE-CHECK	NSN: 4820-01-417-1578 PN: 7E3921	1	115.69
4	N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-290-8082 PN: 7L6443	80	11.44
4	N	GASKET	NSN: 5330-01-209-8018 PN: 7N3049	1	48.67
4	N	WASHER-THRUST	PN: 7N3218	2	66.09
4	N	GASKET	NSN: 5330-01-208-2922 PN: 7N3368	1	3.58
4	N	GASKET	NSN: 5330-01-209-4114 PN: 7N4320	2	11.15
4	N	GASKET	NSN: 5330-01-210-4988 PN: 7N4932	1	2.62
4	N	GASKET	NSN: 5330-01-208-6754 PN: 7N4945	3	1.54
4	N	GASKET-MANIFOLD	NSN: 5330-01-208-7589 PN: 7N5080	12	2.84
4	N	WASHER-THRUST	NSN: 3120-01-322-2933 PN: 7N5246	2	61.95
4	N	SEAL-RECTANGULAR	PN: 7N6806	4	1.29
4	N	WASHER-THRUST	PN: 7N7539	2	108.03
4	N	SEAL-O-RING	NSN: 5330-01-317-9474 PN: 7X4805	3	3.71
4	Y	ROD END	NSN: 3120-01-350-6917 PN: 7X7875	2	28.20
4	N	SEAL-O-RING	NSN: 5331-01-449-6223 PN: 8C0562	3	2.53
4	N	SEAL-THREAD (was 5R-7136)	PN: 8J6775	2	7.02
4	N	GASKET	NSN: 5331-01-207-0274 PN: 8N2559	1	34.05
4	N	SEAL-O-RING	NSN: 5331-01-352-9339 PN: 8T1919	14	4.71
4	N	SEAL-O-RING	NSN: 5331-01-303-1535 PN: 8T2928	3	3.12
4	N	SEAL-O-RING	NSN: 5331-01-303-1536 PN: 8T2929	3	3.19
4	N	RING-RETAINING	NSN: 0000-XF-C25-6854 PN: 9F7707	36	2.10
4	N	GASKET	NSN: 5330- 00-429-3727 PN:	2	1.08

			9L1480		
4	N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-429-3096 PN: 9L7373	52	3.35
4	N	SEAL-O-RING	NSN: 5331-00-951-1574 PN: 9M2610	1	17.60
4	N	SEAL	PN: 9X7523	2	13.97
4	N	BOLT-LOCKING	PN: 9X8872	48	0.60
4	N	GASKET	NSN: 5330-01-317-9529 PN: 9Y8389	2	2.97
4	N	SEAL	PN: 1073759	2	417.40
4	Y	CORE AS-AFTERCOOLER	PN: 2828217	1	6,037.79
4	N	SEAL-O-RING	NSN: 5331-01-317-9506 PN: 6V9027	1	1.16
4	N	MAIN BEARING	PN: 149-6035	7	273.32
4	N	THRUST PLATE	PN: 7C-6209	2	503.69
4	N	SEAL-CRANKSHAFT (was 113-8432)	PN: 5697728	1	234.78
4	N	SEAL-CRANKSHAFT (was 113-8433)	PN: 5697729	1	227.48
4	N	BEARING-CONNECTING ROD	NSN: 3120- 01-297-7501 PN: 1077330	12	185.26
4	Y	PUMP GP-F XFR	NSN: 4320-01-609-8802 PN: 313-7770	1	1,214.08
4	Y	INJECTOR GP-FUEL	NSN: 2910-01-576-1910 PN: 392-0217	12	2531.50
4	Y	PUMP GP-ENG OIL	NSN: 2815-01-337-8842 PN: 4P5638	1	3,645.18
4	N	SEAL-O-RING (was 3P-0654)	NSN: 5330-00-367-5657 PN: 2594600	2	2.25
4	N	SEAL-O-RING (was 7X-1547)	PN: 3103954	2	33.26
4	N	SEAL-O-RING	NSN: 5331-01-350-5345 PN: 5P8872	1	35.42
4	Y	CORE GP-O CLR	PN: 4W4980	1	4,722.77
4	N	SEAL-O-RING	NSN: 5331-01-419-3124 PN: 1092332	2	27.91
4	N	GASKET	NSN: 5330-01-543-6637 PN: 2473796	2	10.58
4	N	BOLT	NSN: 5306-00-260-4508 PN: 0S1594	4	17.04
4	N	SEAL-O-RING (was 5P-9890)	NSN: 5331-01-564-9568 PN: 1123540	4	8.37
4	N	SEAL-O-RING	NSN: 5331-01-564-9567 PN: 1367227	2	0.80
4	N	BOLT	PN: 1653932	2	1.09
4	N	BOLT (was 0T-0573)	NSN: 5306-01-564-4362 PN: 1653934	2	1.46
4	N	SEAL	PN: 1782437	2	155.86

4	N	SEAL-O-RING	NSN: 5331-01-604-9024 PN: 1808424	3	1
4	N	BOLT	PN: 1A5964	4	2.03
4	N	HOSE AS	NSN: 4720-01-543-1695 PN: 2525658	2	24.37
4	N	GASKET	NSN: 5330-01-543-6619 PN: 2528374	2	11.21
4	N	BOLT	NSN: 5306-01-684-3553 PN: 3008579	8	25.51
4	N	NUT-FLANGE	PN: 3102233	8	2.88
4	N	GASKET	NSN: 5330-01-584-5356 PN: 3419211	8	2.37
4	N	HOSE AS	PN: 3836859	1	64.55
4	N	GASKET-EXHAUST	NSN: 5330-01-684-3696 PN: 4537800	4	5.40
4	N	GASKET	NSN: 5330-01-506-6843 PN: 4P4460	2	1.26
4	N	HOSE AS	PN: 5326587	1	58.42
4	N	BOLT-HIGH TEMPERATURE	PN: 6V1943	12	1.90
4	N	SEAL-O-RING	NSN: 5331-01-351-2742 PN: 6V5064	1	7.5
4	N	SEAL-O-RING	NSN: 5331-01-413-2754 PN: 6V6609	7	1.25
4	N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-525-1412 PN: 6V6753	8	5
4	N	GASKET	NSN: 5330-01-208-2922 PN: 7N3368	1	3.58
4	N	GASKET	NSN: 5330-01-377-5325 PN: 7N7559	2	7.38
4	N	SEAL-O-RING	NSN: 5331-00-973-8301 PN: 8L2786	2	0.55
4	Y	TURBO GP-BASIC	NSN: 2950-01-505-2590 PN: 5091016	2	12,649.08
4	N	SEAL (was 149-5462)	PN: 2714926	1	15.52
4	N	SEAL-O-RING	PN: 5H6734	1	10
4	Y	PUMP GP-WATER	PN: 4160610	1	1,000
4	N	SEAL-O-RING	NSN: 5331-01-521-3862 PN: 2353546	1	27.63
4	N	GASKET	NSN: 5330-01-333-9921 PN: 5N1940	1	6
4	N	SEAL-O-RING	PN: 6V3348	1	10
4	Y	AUXILIARY WATER PUMP GP	4243625	1	3,686.84
5	N	12 in D Raised Quick-Acting Watertight Scuttle, w/ Coaming 6in x 3/16in, Steel, 15 psi	Juniper P/N : JE31890-SRQXB02	2 ea.	7,000.00 (incl. S&H)
16	N	Switch, Thermostatic	NSN: 5930-01-342-3911 (PN:	2 ea.	100.00

			444-10)		
17	Y	EMCP 4.2B	NSN: 2990-01-725-4554 PN: 592-5156	3 ea.	3,250.00
19	N	Strainer, Sediment (3 inch IPS, Simplex Basket, 1/2 -inch Perforated)	NSN: 4730-01-428-3199	2 ea.	5,500.00
21	N	Flowserve Durco 8-BX2-L1111A1v1nz Performance Butterfly Valve with Gear Wheel Operator	NSN: 4820-01-F24-6975	2 ea.	5,302.00

***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 ServiceCenter**

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
2	Side Boat Davit, Renew
3	Folding Boom Cranes, Biennial
4	Ship Service Diesel Generator, Eng Major Overhaul
5	RQAWTS 12 D (1-93-1 and 1-93-2), Renew
8	Deck Covering (Slip-Resistant), Renew
11	Tanks (Aviation Fuel Service), Clean and Inspect
12	Tanks (MP Fuel Storage and Overflow), Clean and Inspect
13	Tanks (MP Fuel Service), Clean and Inspect
14	Grey Water Holding Tank(s) and Lift Stations, Clean and Inspect
15	Voids (Accessible), Clean and Inspect

PRINCIPAL CHARACTERISTICS

418' WMSL	
PHYSICAL	
Length overall	418' 0"
Length between perpendiculars	390' 0"
Maximum beam	54' 0"
Beam @ 01 level	47' 9-1/8"
Depth (01 level @ side to baseline)	39' 2-3/4"
01 deck camber foredeck	1/4" in 1'-0"
Minimum berth depth	20' 0"
Height of highest projection	Approximately 119'
Draft, design	14.40'
Design displacement	3925 long tons
MACHINERY	
Two diesel engines	MTU 20V, 20-cylinder 9,730 SHP each
One gas turbine	General Electric LM2500; 29,500 SHP
Type of propulsion	CODAG
Electrical system	24 Volt DC
Two controllable pitch propellers	Rolls-Royce 5 blade, 14' 0" diameter; 229 RPM max
Two reduction gears	RENK
One cross connect gear	RENK
HULL	
Hull material	5086 Aluminum
	HSLA-80 Steel
	ABS EH 36 Steel
	ABS AH 36
Frame spacing	
FWD of FR 9	2' 3"
FR 9 to FR 10	6' 9"
FR 10 to FR 98	4' 1"
FR 98 to FR 99	3'-8"
ELECTRICAL	
Power	Three 1360 kW, 450 V, 60 Hz, 3 Phase, 1800 RPM Caterpillar 3512B diesel engines with Baylor ship service generators
Shore tie cable	Seven MIL-C-24368/2 (NATO) shore power receptacles, 400 A each
TANK CAPACITIES	
Diesel oil	220,359 gal
Fresh water	12,454 gal
JP-5 Fuel	35,182 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), Latest Version, General Requirements

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

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

Fire Prevention and Response

Surface Forces Logistics Center Standard Specification 6310 (SFLC Std Spec 6310), Latest Version, 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

NAVSEA Technical Publication T9074-AD-GIB-010/1688, (TP 1688), July 2012, Requirements for Fabrication, Welding, and Inspection of Submarine Structure

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.

3.1.1 The Contractor must conform to all requirements specified in SFLC Std Spec 5550 and in the Fire Protection and Response work item, as applicable, during the performance of this availability.

3.1.1.1 Fire Safety Plan submission. The Contractor must submit a copy of the CFR 1915, Subpart P, Fire Safety Plan with the Contractor's bid when work will be conducted in a Contractor–owned facility. Include any MOA(s) with local firefighting facilities.

3.1.1.2 Fire Plan submission. The Contractor must submit a copy of the developed availability specific fire plan, as requested in the Fire Protection and Response work item, at the Arrival Conference.

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 Fire watch requirements. The Contractor must refer to 3.3.1.3 (Fire watch requirements) of SFLC Std Spec 0000, in accomplishing the following task:

- Provide portable fire extinguishers for Coast Guard fire watch personnel. Coast Guard fire watch is in lieu of contractor personnel during the hours of 0800-1600, Monday through Friday, and limited to two Coast Guard fire watch personnel.
- Provide fire watch personnel and fire extinguishers for the duration of the availability period, during and beyond noted Coast Guard fire watch support.

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.

NOTE

NAVSEA approval is NOT required for welding procedures submitted but the procedures must be reviewed and shown to satisfy the requirements set forth in NAVSEA TP 1688, by a welding regulatory agency. The requirements for welding Strenx 900 are considered the same as those for welding HY-130.

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 is 7690390037. The EPA ID for the Coast Guard Facility is CA7690390037.

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.

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**

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**

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

PRINT RESET

TANK AND VOID ASSESSMENT FORM

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

PRINT

TANK AND VOID ASSESSMENT SHEET

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: Air Conditioning Plants, Groom

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to groom each of the ship's three (3) air conditioning plants.

TABLE 1 – A/C PLANT NAME PLATE DATA

COMPRESSOR	COMPRESSOR MOTOR	CONDENSER
Manufacturer: York International	Manufacturer: A.O. Smith	Manufacturer: Ketema
Type: Semi-Hermetic Screw	Part No.: 625272-005	Part No: MHX-1208-2P Type: Shell and Tube
Model: YCWS	Voltage: 440	Shell Dia.: 12.75 inch
Displacement: 239.3 Cu. Ft/Hr, Speed: 3600 RPM	60Hz	Shell Length: 95.75 inch
Oil Charge: 6 gallons (3 gallons per refrigerant circuit) York "L" Oil	Full Load Amps: 98	Water Pass: 2 pass

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	Resilient mount type 6E2000 Mil Spec MIL-M-17508, Barry Controls 3114-4	NSN: 5342-00-598-8825	18 ea	460.00

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 750-WMSL_508_1, Rev C, Piping and Machinery Insulation Schedule and L/M

Coast Guard Drawing 750-WMSL_520_1, Rev H, Seawater Cooling System Diagram

Coast Guard Drawing 750-WMSL_520_4, Rev E, Salt Water Cooling Unit 1320

Coast Guard Drawing 750-WMSL_520_506, Rev F, Auxiliary Seawater Piping Mods FWD of FR 52

Coast Guard Drawing 750-WMSL_520_20, Rev B, Seawater Cooling System Diagram WMSL 750 Only

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) S9514-F1-MMA-010, SWBS 514, Jun 2020, Air Conditioning Plant - 130-Ton Capacity, HFC-134A - Description, Operation & Maintenance - REV 2

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.

3.1.2.1 AC Tech Rep. The Contractor must provide the services of a Qualified Technical Representative who is familiar with the York 130-Ton capacity, HFC-134A Air Conditioning plants to accomplish the following on site:

- Advise on manufacturer’s system information.
- Assist with disassembly, inspection, repair, modification, calibration, testing and reassembly of the equipment/system.
- Ensure compliance with manufacturer's procedures and standards during system disassembly, inspection, and reassembly as applicable.

3.1.2.1.2 Ensure the Tech Rep has experience with the system/equipment stated above and demonstrated on their résumé.

3.1.2.1.3 Submit the name and résumé of the Tech Rep to the COR at the Arrival Conference.

3.1.2.2 Eddy Current Tech Rep. The Contractor must provide the services of a certified Tech Rep, who is familiar with eddy current testing and can demonstrate ASNT-TC-1A certification Level 2. to accomplish the following tasks – on site:

Eddy current testing

3.1.2.2.1 Submit the Tech Rep’s name, certification documentation and résumé to the COR at the Arrival Conference.

3.1.2.2.2 Submit the name and résumé of the Tech Rep to the COR at the Arrival Conference

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 below-listed:

- Plant piping and fittings
- Refrigerant
- Insulation
- Work benches

3.1.5 Personnel qualification. The Contractor must ensure that all personnel servicing Air Conditioning and Refrigeration (AC&R) equipment that uses CFC or HCFC refrigerant hold a current Environmental Protection Agency (EPA) Technician Certification, Type IV (Universal Certification), and meet all State and local regulations and licensing requirements.

3.1.6 AC Requirement. The Contractor must ensure that at least two A/C circuits (i.e. 1A and 2B, 2A and 2B, etc) are operational at all times. This will require installing blank flanges in the condenser supply and discharge piping for various plants throughout the work. The Contractor may bring down the AC plant for no more than an hour at a time to install the necessary blanks, and if the Contractor must notify the COR at least one business day in advance prior to taking the AC plant offline.

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. Including but not limited to the following testing. Submit a CFR.

3.2.1 During initial testing of the AC units run each individual compressor by itself (no other compressors operating) for an hour. The Contractor must record and submit an operational report following startup utilizing figure 2-16 of TP S9514-F1-MMA-010.

3.3 Visual survey. Accompanied by the Coast Guard Inspector, the Contractor must conduct a visual survey of each of the three (3) air conditioning plants. Submit a condition found report noting any unusual conditions and recommending any repairs. The visual survey must include the following items at a minimum:

- Thermal Insulation
- Vibration isolators
- Refrigerant Piping/Tubing
- Condition of steel in the main structure
- Condition of paint

3.4. Refrigerant Recovery. The contractor must pump down each plant in accordance with Paragraph 6-1.2.1 of TP S9514-F1-MMA-010.

3.4.1 Prior to disposal, the Contractor must test the refrigerant for acid and check for Air/Non-Condensable in the recovery bottle. CG Inspector must be present to verify Pressure/Temperature Relationship on recovery cylinders after recovery cylinders have settled for a minimum of 24 hours. Submit a CFR with the results of this testing.

NOTE
Regardless of the testing outcome, the Contractor is still responsible for renewing the refrigerant.

3.4.2 Dispose of recovered refrigerant in accordance with Federal, state, and local regulations and SFLC Std Spec 0000.

3.5 Refrigerant Leak Test. The Contractor must perform a leak test in accordance with Paragraph 6-2.1 of TP S9514-F1-MMA-010. Report results via a CFR.

3.6 Valve Maintenance. The Contractor must perform the following valve maintenance to the system. Overhauls include renewal of all resilient components, including gaskets, o-rings, packing and seal as well as the inspection of valve bodies, stems and sealing mechanisms. Record renewed material for each valve in a CFR.

3.6.1 Replace or overhaul the following manual valves. Detailed information for each valve can be found in Table 1-1 of TP S9514-F1-MMA-010.

- Compressor Discharge Stop Valve
- Economizer Port Stop Valve
- Main Liquid Line Stop Valve
- Liquid Refrigerant Injection Stop Ball Valve
- Oil Charge and Drain Stop Valve
- Condenser Water Reg/Refrigerant Pressure Packed Angle Valve
- Refrigerant Charge and Drain/Chilled Water Drain Stop Valve
- Suction and Discharge Transducer Isolation Stop Valve
- Suction Access Stop Valve

3.6.2 Condenser Water Regulating Valve. The contractor must renew the Condenser Water Regulating valves (6 total) to ensure proper operation. Detailed information for the Condenser Water Regulating Valve can be found in Table 1, Figure 7-9 and Appendix A of TP S9514-F1-MMA-010. Reference the system diagrams and either CG Drawing 750-WMSL-520-506 (for modified cutters) or CG Drawing 750-WMSL-520-004 (for unmodified cutters) for more information about the location and arrangement of these valves.

3.6.3 Solenoid Valve. The Contractor must overhaul the Solenoid Valves – including the Liquid Line Solenoid Valve, the Liquid Refrigerant Injection Solenoid Valve and the Capacity Control Solenoid Valve. Detailed information for these solenoid valves is shown in Table 1-1 of TP S9514-F1-MMA-010 and Figure 7-12, 7-13 and 7-14.

3.6.4 Thermal Expansion Valve. The Contractor must overhaul the thermal expansion valves for the Chilled Water Evaporator and the Economizer and adjust the thermal expansion valves to achieve the

performance listed in the first section of Table 1-1. Detailed information for these valves is shown in Table 1-1 of TP S9514-F1-MMA-010 and Figures 7-10 and 7-11.

3.6.5 Relief Valves. The Contractor must renew the relief valves on the condensers and the evaporator using GFP. The evaporator relief valve is shown as Piece 7-3-25 in Figure 7-3 of TP S9514-F1-MMA-010. The condenser relief valve is not listed as a particular part number, but it is the same relief valve that is used in the evaporator. Ensure that they are set to the appropriate pressure. Detailed information for these valves is shown in Table 1-1 of TP S9514-F1-MMA-010.

3.6.6 Rupture Disks. The Contractor must renew the rupture disks, Piece 7-8-8 in Figure 7-8 of TP S9514-F1-MMA-010.

3.7 Compressor Oil. The Contractor must conduct the following maintenance on the compressor oil system.

3.7.1 Renew the oil in the compressor in accordance with paragraph 6-1.3 and paragraph 6-2.2 of TP S9514-F1-MMA-010. Change the compressor oil in the refrigeration plants as shown in PC 34, Drawing 077-18147-001 in Section 21 of TP 7168. The Contractor must provide new oil, and submit a CFR documenting the new oil specifications and the quantity provided.

3.7.2 Renew oil filters in accordance with TP S9514-F1-MMA-010, qty two (2) per plant.

3.7.3. Clean and inspect the oil separator for damage.

3.8 Sensor Calibration. The Contractor must calibrate all sensors in accordance with Paragraph 4-4 of TP S9514-F1-MMA-010. Submit a CFR including the results for each sensor.

3.9 Condenser Maintenance.

3.9.1 The Contractor must conduct all condenser maintenance shown in Paragraph 4-5 of TP S9514-F1-MMA-010. Utilize condenser head removal and reinstallation instructions from Paragraph 6-3 of TP S9514-F1-MMA-010. Submit a CFR showing discrepancies.

3.9.1.1 Renew the head gasket regardless of inspected condition.

3.9.2 Eddy Current Testing. The Contractor must provide eddy current testing for all tubes for the all six condensers. Submit CFRs for all requested information.

3.9.2.1 The Contractor must provide the COR with calibration documentation for their eddy current equipment that demonstrates compliance with ASME Code, Section V, Article 8-SE243.

3.9.2.2. The Contractor must document each tubes erosion/corrosion in a diagram format as well as a table of data including percent tube wall thickness loss and remaining wall thickness.

3.9.2.3 The Contractor must provide recommendations for the renewal of tubes based on thickness loss.

3.9.2.4 The Contractor must provide pictures of all deficiencies that are found by the eddy current testing. For bidding purposes, the Contractor must provide 100 pictures.

3.9.2.5 The Contractor must clean the condenser tubes in consultation with the eddy current tech representative to facilitate the inspection.

3.10 Evaporator Water Heads Maintenance. The Contractor must remove, inspect and reinstall the evaporator water heads in accordance with Paragraph 6-4 of TP S9514-F1-MMA-010 and the Katema LP DTX Direct Expansion Evaporator Installation, Operation and Maintenance Instructions (this document must be Contractor-provided). Renew all disturbed gaskets. The contractor must renew the nuts on these heads with nylock nuts per Figure 7-5 of TP S9514-F1-MMA-010. Submit a CFR showing discrepancies.

NOTE

Lock washers are used on the nuts, but are not included on the drawing.

3.11 Power and Control System Inspection. The Contractor must conduct inspections in accordance with the Power and Control System Section in Table 4-1 of TP S9514-F1-MMA-010. Conduct both “Minor Maintenance” and “Major Maintenance” inspections and submit a CFR noting any deficiencies.

3.11.1 Open and inspect each of the two (2) motor controllers and the main cut-out on each air conditioning plant. Vacuum and remove any dust from inside of the controller. Tighten all internal connections.

3.12 Microprocessor Controls. The Contractor must conduct inspections in accordance with the Microprocessor Controls Section in Table 4-1 of TP S9514-F1-MMA-010. Conduct both “Minor Maintenance” and “Major Maintenance” inspections and submit a CFR noting any deficiencies.

3.13 Dryer and Moisture Indicators. The Contractor must change out the dryer elements on the air conditioning plants. Change out the moisture indicators. Dryer element is shown on Piece 30, Drawing 077-18317-001, TPS9514-F1-MMA-010. Moisture indicators are shown on Piece 42, Drawing 077-18317-001, TPS9514-F1-MMA-010.

3.14 Skid inspection and mount renewal.

3.14.1 The Contractor must inspect the AC steel frame for any signs of damage or paint failure. Submit a CFR with inspection results and any recommendations for renewal.

3.14.2 Renew the six resilient mounts (MIL-M-17508, Drawing 077-16342-000, TP S9514-F1-MMA-010) on each of the AC skids.

3.14.3. Utilize Grade 5 hardware per TP S9514-F1-MMA-010 for the resilient mounts regardless of the existing fasteners.

3.15. Post-work Leak Test. Once all parts are rebuilt or replaced, the Contractor must perform a leak test in accordance with Paragraph 6-2.1 of TP S9514-F1-MMA-010. The Contractor is responsible for repairing any leaks from equipment that they disturbed over the course of the work. Report results via a CFR.

3.16. Charging Refrigerant. Upon completion of a successful leak test, the Contractor must charge refrigerant to the unit using their own refrigerant bottles in accordance with Paragraph 6-2.3 of TP S9514-F1-MMA-010 in the presence of a CG Inspector.

3.16.1. Prior to charging the refrigerant, the system must be pulled down to a vacuum below 500 microns for at least 5 minutes. This may be done separately or simultaneously with the vacuum requirements in TP S9514-F1-MMA-010

3.16.2. The Contractor must notify the crew when the compressor oil begins heating via CFR to comply with the 8-hour requirement shown in Paragraph 6-2.3b.

3.16.3. The Contractor must submit documentation to the COR for the refrigerant prior to filling it to confirm that it is the correct type.

3.17 Operate Plant. The Contractor must operate each A/C Plant over the course of 24-48 hours and make the necessary adjustments to achieve performance listed in the first section of Table 1-1.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.18 Operational test, Final. Upon completion of work, the Contractor must witness Coast Guard personnel perform a final operational test of all items or shipboard devices that were disturbed, used, repaired, or altered, to demonstrate existing operational condition. Including but not limited to the following testing. Submit a CFR.

3.18.1 During final testing of the AC units run each individual compressor by itself (no other compressors operating) for an hour. The Contractor must submit an operational report following startup utilizing figure 2-16 of TP S9514-F1-MMA-010.

3.19 Insulation renewal. The Contractor must renew up to 10 linear feet of damaged insulation over the following exposed pipe surfaces in accordance with CG Drawing 750 WMSL 508-001 Sheet 44. The ten linear feet of insulation could include:

- Associated pipe hangers
- Valves
- Fittings
- Flanges

3.19.1. The exact location of this insulation renewal is at the discretion of the COR.

3.19.2. This ten linear feet of renewal does NOT include insulation that the Contractor damages in order to accomplish the other work required in this specification.

3.20 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, (Touch-ups and minor coating repairs.)

4. NOTES

This section is not applicable to this work item.

WORK ITEM 2: Side Boat Davit, Renew

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew the side boat davit and to start-up and test the side boat davit (i.e. Allied Systems Dual Point Davit Model No. DDP 11000 CTS & SP 2200).

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	Allied Systems Dual Point Davit with Control Console	DDP11000CTS & SP2200 NSN:2030-016306123	1 ea.	$480,000
Y	CB-OTH Mark IV (Coast Guard Drawing 26B-CB-IV-801-001)		1 ea.	

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 750-WMSL_100_83 Rev A, General Arrangements NSC5 & Follow

Coast Guard Drawing 750-WMSL_100_51, Rev J, Unit 4310 Structure – 01 Level to 02 Level – Frame 44 to Frame 52

Coast Guard Drawing 750-WMSL_100_52, Rev J, Unit 4320 Structure – 02 Level and Above – Frame 48 to Frame 53

Coast Guard Drawing 750-WMSL_100_53, Rev J, Unit 4420 Structure – 01 Level and above – Frame 52 to Frame 67

Coast Guard Drawing 750 WMSL_100_530, Rev F, Modifications incidental to the installation of Allied Dual Pont Davit (HAMILTON, JAMES & MUNRO).

Coast Guard Drawing 750-WMSL_300_2, Rev C, Electrical Standard Details (ASC300003)

Coast Guard Drawing 750-WMSL_320_42, Rev C, Electrical One Line Diagram (NSC 6 SRD)

Coast Guard Drawing 750-WMSL_520_504, Rev D, Seawater Cooling Piping Mods IWO Dual Point Davit Installation

Coast Guard Drawing 750-WMSL_583_2, Rev D, Small Boat Starboard Handling System Arrangement & Details

Coast Guard Drawing 750-WMSL_583_518, Rev D, Hydraulic Piping Mods IWO Dual Point Davit Installation

Coast Guard Drawing 750-WMSL_631_2, Rev M, Paint Schedule (ASC631002)

Coast Guard Drawing 750-WMSL_634_1, Rev H, Deck Covering Schedule (ASC634001)

Coast Guard Drawing 750-WMSL_635_2, Rev K, Insulation Arr & Details Thermal, Acoustic, & Fire (ASC635002)

NAVSEA Drawing 804-5773931, Rev A, Acoustic & Thermal Insulation for Compartments Installation Details

NAVSEA Drawing 804-5959308, Rev -, Lifeline Systems

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 3041 (SFLC Std Spec 3401), 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 5000 (SFLC Std Spec 5000), 2022, Auxiliary Machinery Systems

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

Coast Guard Technical Publication (TP) 7902, “Preliminary’ Dual Point Davit – Models DDP11000CTS & SP2200 (S/N – 2313 & 2315)

OTHER REFERENCES

MIL-DTL-15024, Nov 1997, Plates, Tags and Bands for Identification of Equipment

Allied Systems Drawing Number 68992, 2013, General Arrangement

Allied Systems Drawing Number 70082, 2013, Installation Drawing

International Standards Organization (ISO) 4406, 1996, Hydraulic Fluid Power – Fluids – Method for Coding the Level of Contamination by Solid Particles

Society of Automotive Engineers (SAE) J1273, 2009, Recommended Practices for Hydraulic Hose Assemblies

Society of Automotive Engineers (SAE) J1475, 2009, Hydraulic Hose Fittings for Marine Applications

Society of Automotive Engineers (SAE) J1942/1, 2010, Qualified Hoses for Marine Applications

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

- 3.4.1 Deck Inspection

3.1.2 Tech Rep.

3.1.2.1 The Contractor must provide the services of an Original Equipment Manufacturer (OEM) Tech Rep who is familiar with the Allied Dual Point Davit to do the following, on site:

- Provide Technical Support during installation.
- Advise on OEM manufacturer's proprietary information pertinent to the system.
- Ensure compliance with OEM manufacturer's procedures and standards during installation.
- Provide Technical Support for safety circuit and control circuit verification.
- Provide Technical Support during load test and sea trail acceptance test.
- Install latest Operating Software.

3.1.2.2 Ensure the Tech Rep has a résumé of demonstrated experience with the system/equipment stated above.

3.1.2.3 Submit a copy of the Tech Rep's résumé and a list of references to the to the COR at the Arrival Conference.

3.1.3 Protective measures - general. The Contractor must furnish and install all protective coverings to seal off and protect all non-affected vessel's components, equipment, and spaces in the vicinity of the work area against contamination during the performance of work. Upon completion of work, the Contractor must remove all installed protective measures, inspect for the presence of contamination, and return all contaminated equipment, components, and spaces to original condition of cleanliness.

3.1.3.1 Protective measures - hydraulic system(s). The Contractor must maintain existing hydraulic system cleanliness and take all necessary precautions to prevent the introduction of contaminants into the hydraulic system. Immediately after disconnecting or removing components from the hydraulic system, the Contractor must completely seal all openings to the rest of the system using caps for externally threaded connection points, bolt-on blanks, or taped-on discs/covers made of durable plastic or sheet-metal that is no less than 1/16-inch thick.

NOTE

Plastic bags may be used only when arrangement or configuration prevents the use of the other sealing methods specified above.

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 below-listed:

- Piping
- Electrical Cables
- Vent
- Ladders
- 02 Level Catwalk Support foundation
- Speaker
- CCTV Camera
- Overhead Lights
- Heat exchanger
- Hydraulic oil

3.1.6 Welding requirements. Where welding is necessary, the Contractor must accomplish all welding in accordance with SFLC Std Spec 0740.

3.1.7 NDI. The Contractor must perform NDI of all Contractor welds in accordance with SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.1.8 Electrical requirements. The Contractor must accomplish all electrical work in accordance with SFLC Std Spec 3042, and test cables in accordance with SFLC Std Spec 3041. Existing wireways must be utilized for new cable runs as much as possible.

3.1.9 Crane, rigging and GFP transport services. The KTR is responsible for Crane services, Rigging Services, and Transportation Services of GFP (Government Furnished Property) on Base Alameda after USCG transfers GFP to KTR at beginning of project. The replacement of Allied Systems Dual Point Davit with Control Console, DDP11000CTS & SP2200 NSN:2030-01-630-6123 is the KTR responsibility IAW WI-2. USCG will not provide any Crane services, Rigging Services, or Transportation Services of GFP (Government Furnished Property) on Base Alameda after USCG transfers GFP to KTR at beginning of project.

3.1.10 Hose tags. The Contractor must provide hose tags in accordance with MIL-DTL-15024. Ensure tag color coding of black on natural or black on white. Ensure that tags must be attached using materials that will not damage hose assembly in any way, or interfere with the normal flexing motion of the hose.

3.1.10.1 Hose tag information. Ensure the following is placed on each hose tag:

- Hose Log Item Number (Serial Number)
- Hydro Test Pressure and Test Date [DD/MM/YY]

NOTE

Hydro Test Pressure and Test Date may be provided by the assembly manufacturer on an independent tag. Where a hydro test is not required, insert the annotation "NA".

- Service Life (Replacement Date) Date [QTR "Q"/FY]
- The Contractor must stamp information on each tag. Hand written information on Tags is NOT acceptable.

3.1.11 Work location. See the Coast Guard Drawings referenced in the Section 2 for locations, details, material requirements, and guidance.

3.1.12 Work Coordination. This work item must be coordinated with work item for tenting to ensure that tenting does not interfere with crane operations for remove/install/testing of the davit.

3.1.12 The GFP includes but is not limited to the following: one (1) self-contained “palletized” Allied Systems Dual Point Davit complete with control console.

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 to be disturbed, used, repaired, or altered, to demonstrate existing operational condition. Submit a CFR.

3.3 Renew Dual Point Davit (DPD). The Contractor must follow guidance from Tech rep, Coast Guard Tech Pub and referenced drawings to renew the Dual Point Davit.

NOTE

Davit hydraulic fluid heat exchanger is located in the Rescue Station (Compartment 2-48-1-Q).

3.3.1 Fluid disposal. The Contractor must drain the hydraulic fluid from the Davit HPU system (approximately 200 gallons) in accordance with Tech Rep guidance. Dispose of the fluid in accordance with all Federal, state and local regulations. Do not drain fluid into any space, bilge or exterior location.

3.3.2 All isolation valves must be closed and tagged out and blanking plates must be in place prior to removal of davit.

3.3.3 All disconnect and isolation switches must be placed in the "off" position and tagged out and all wiring to motor controllers, electrical and control panels, local control stations and from various sensors must be tagged out and disconnected prior to rip out of any electrical devices and piping.

3.3.4 After removal of existing DPD, the Contractor must partially disassemble the old davit to same configuration as the new davit was received. Wrap and crate the removed and disassembled Dual Point Davit and associated components. Contractor may reuse crating materials from the new boat davit. Turn over crated davit and components to COR.

3.4 Partial preservation. The Contractor must prepare and preserve up to 33% of the davit foundation while the davit is removed, in accordance with SFLC Std Spec 6310, Appendix A, using the system specified for "Freeboard/Superstructure/Mast (Freeboard/Superstructure, Steel)" Option II. Power tool clean all affected surfaces to "bare metal" in accordance with SSPC-SP 11, in lieu of using abrasive blasting; and feather edges of existing intact coating to the prepared areas, in order to provide a smooth transition with the new paint. Conduct inspections and SSPC SP-1 (solvent cleaning) on the structure prior to conducting surface preservation.

3.4.1 Deck Inspection. In presence of the Coast Guard Inspector, the Contractor must inspect the deck surface normally covered by DPD. Conduct inspections after cleaning surfaces/removing coating and prior to priming substrates in accordance with SFLC Std Spec 0740. Submit a CIR.

3.4.2 Visual inspection (VT). The Contractor must visually inspect all exposed substrates for any pitting, corrosion, and erosion.

NOTE

Depending on level of corrosion and condition of deck the quantity of pit measurements and UT shots required may be less than those indicated. If more are necessary (severely corroded decks), the Contractor must submit CFR.

3.4.3 Pit measurement. The Contractor must measure all observed pits on exposed substrates (after removing/cleaning surface covering/coatings and prior to priming substrates) in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). For bidding purposes, the Contractor must use estimate 20 pit measurements are required.

- Mark up a copy of Coast Guard Drawings to show all locations selected for measurement.
- Report the measurements including results (the depth of the pits), locations, and illustrations/marked up drawings.

3.4.4 Ultrasonic measurement (UT. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. For bidding purposes, the Contractor must estimate 80 UT measurements. All UT measurements must be taken on cleaned surfaces in accordance with SFLC Std Spec 0740 Appendix C.

- Mark up a copy of Coast Guard Drawings. Show all locations selected for measurement.
- Report the measurements including results (thicknesses, and cracks), locations, and illustrations/marked up drawings.

3.4.5 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). As designated by the COR, the Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing insulation, coating, or deck covering using Epoxy Fairing Material in accordance with SFLC Std Spec 6310, Appendix A (Cutter and Boat Exterior Painting Systems), "Metal Repair and Hull Smoothing", MIL-PRF-24176, and manufacturers' instructions. For estimating purposes the Contractor must estimate 1 kit epoxy fairing compound will be required.

NOTE

"Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.5 Installation of new DPD. Davit structure must be assembled off-ship and in accordance with davit manufacturer's drawings and assembly instructions. Rigging of the davit for lifting aboard the cutter must be in accordance with manufacturer's instructions. Electrical and hydraulic interconnection of davit major assembles must be in accordance with manufacturer's instructions. Allied System Tech Rep must provide guidance in the installation of davit arms and davit skid on the Cutter.

3.5.1 All bolted connections must be torqued in accordance with the davit manufacturer's drawings and assembly instructions. Fastening hardware must be free of corrosion, burrs, or other defects that will inhibit clamping forces and fastener performance. Fasteners must be evenly and lightly lubricated prior to assembly.

3.5.2 The foundation platform for the davit must be installed such that the davit base is parallel to the centerline of the ship. The 01 Level has no shear.

3.5.3 Winch and sheaves must be lubricated in accordance with the davit manufacturer's recommendations prior to operation of the davit.

3.5.4 The davit must be reeved in accordance with the davit manufacturer's drawings and reeving instructions. Check davit ropes for proper lubrication, if necessary redress ropes with manufacturer recommended rope lubricant.

3.5.5 Installed floodlights, terminal boxes, circuit breaker, nameplates and associated cables as shown on Coast Guard Drawing 750-WMSL-320-580. The Contractor must verify that all electrical installation is performed in accordance with " INSTALLATION NOTES" of the Coast Guard Drawing 750-WMSL-320-580.

3.5.6 Mount motor controller enclosures and emergency stop stations, install power feeders, and install interconnect wiring between davit subassemblies as shown Coast Guard Drawing 750-WMSL-320-580.

3.6 Heat exchanger installation. The Contractor must remove the heat exchanger from the davit machinery skid and relocate to the Rescue Station. Connect piping and hoses in accordance with Coast Guard Drawings 750-WMSL-583-518 and 750-WMSL-520-004.

3.6.1 Maintaining the cleanliness of the hydraulic system throughout the work cycle is of utmost importance. All Contractors provided and installed hoses and piping must be handled, cleaned, flushed, preserved, tested, and protected in accordance with MIL-STD-419. startup and testing of the new piping and equipment modifications. Hydraulic piping cleanness must be in accordance with ISO 4406 (i.e. 17/15/12). Where GFE components become contaminated, the Contractor must flush the entire system as required. Flushing fluid must be disposed of in accordance with all applicable federal, state, and local regulations.

3.6.2 When installing hydraulic hoses, the Contractor must install adjustable position chaffing material on the hoses in way of potential chaffing points. The material must be removable to permit hose inspection.

3.6.3 Cleanliness levels within the new hydraulic system must, as a minimum, be maintained at ISO 4406 cleanliness 17/15/12 after the initial flushing of the system, prior to, and during operation and testing of any parts of the system.

3.6.4 The Contractor must be responsible for the supply of all cleaning and flushing related materials including but not limited to bypass hoses, blanking plates/caps, cleaning compounds, filtering cart, filter elements, pipe vibrator, etc.

3.6.5 Upon completion of cleaning and flushing, the new portion of the hydraulic system must be filled with hydraulic fluid per the crane manufacturer's instructions.

3.6.5.1 The Contractor must supply and install 200 gallons of the hydraulic oil to hydraulic tank conforming to Mobil DTE 10 Excel 46.

3.6.6 Connect seawater piping, including fittings and valves, in accordance with Coast Guard Drawing 750-WMSL-520-504. Cooler fittings are ANSI titanium flanges. Titanium must be isolated from seawater piping, in accordance with the drawings.

3.7 Acceptance testing. The contractor must conduct installation acceptance testing, as designated by the COR. All acceptance tests must be performed in the presence of the Coast Guard Inspector and OEM Tech Rep, unless otherwise noted by the COR. Submit a CFR.

3.7.1 Test performance. The Contractor must provide OEM Tech Representative during all acceptance tests for the government furnished equipment.

3.7.2 Direction of rotation test. Perform a direction of rotation test on each new and disturbed three-phase or direct current motor circuit.

- Check multi-speed motors in each speed by directly starting from OFF. Do not switch from one speed to another until proper direction of rotation has been confirmed in all speeds.
- Correct any improperly phased or polarized wiring and repeat the test.

3.7.3 Operational test. Verify proper operation of the components or systems affected by this work. During this testing, run the equipment through its full range of capabilities in all configurations and operating modes. Verify that check, globe, flow control, and relief valves are installed in the proper flow orientation.

3.7.4 No Load test. This test must be to verify proper operation and full range of motion for all machinery and controls for the davit. Operation of the Anti-2-Blocking system must be included in this test. Back-up emergency manual operation (non-hydraulic) of the winch must be included in this test. The Contractor must provide Tech Support during all check out of safety systems and control circuits. Submit a CFR.

3.7.5 Load testing. The Contractor must provide OEM Tech Rep to conduct following load testing.

3.7.6 Static Load test. Davit frame must be static load tested to 200% of the Working Load Limit to prove the structural installation on the cutter. Davit arms must be static load tested together, at full extension, with a test load added vertically. The test weights or test force for all Static Load Tests must be externally applied.

NOTE

Static Load Tests are for structure only, and do not include the rigging or crane winches.

3.7.7 Brake test / modified static load test. The davit brake must be tested to 150% of the Working Load Limit to demonstrate the brake holds and releases correctly.

NOTE

The Brake Test / Modified Static Load Test is conducted by externally applying the test load to the davit rigging.

3.7.8 Marine rated load operational test. An operational load test of 125% of the Working Load Limit must be performed. Hydraulic relief valves and pressure compensation valves must not be adjusted to conduct this test, and must not be readjusted after this test.

3.7.9 Rated load test. An operational load test must be conducted at 100% of Working Load Limit to confirm the operating speeds in both the raise and lower directions.

3.8 Sea trial demonstration. The Contractor must, in conjunction with the Coast Guard, conduct Sea Trial Demonstration of the installed system using the Test Plan prepared by the boat davit manufacturer. This test must comprise a series of launches and retrievals with the cutter underway under varying conditions. During sea trials of the side boat testing, the Contractor must provide Tech Support from Allied System.

3.8.1 Small boat listed in the Table 1 will be provided by the Government for testing.

NOTE

Contractor must anticipate getting underway with cutter for a period up to two (2) days; coordinated during Arrival Conference. These dates are based on cutter availability schedule, which will be monitored/tracked during weekly progress meetings

TABLE 1 – small BOAT information

BOAT TYPE	VOLUME OF FUEL TANK (GAL)	TYPE OF FUEL	TOTAL WEIGHT OF THE OUTFIT & CARGO	APPROXIMATE HOIST WEIGHT W/O CREW
CB-OTH Mark IV	100 (Twin 50 gal tanks)	Diesel Oil	183 lb	7,400 lbs (includes boat with complete outfit, full fuel, & 150 lbs of cargo)

3.8.2 In conjunction with the Coast Guard Inspector, the Contractor must conduct Sea Trial Acceptance Test (SAT) of the installed system (i.e. Dual Point Davit) demonstrating full system operations in a sea way, to include boat launch, recovery, tow, constant tension function, and operation in both automatic and manual modes. This test must comprise a series of launches and retrievals with the cutter underway under various sea conditions.

NOTE

Sea trial acceptance test will take time at sea up to two (2) days. Trial dates are based on cutter availability schedule, which can be obtained during weekly progress meetings

3.9 Surface preservation. The Contractor must prepare and coat the disturbed surfaces including all adjacent structural members, using the system specified for in SFLC Std Spec 6310. Abide by all touch-up requirement outlined in paragraph 3.11.9 (Touch ups and minor coating repair) of SFLC Std Spec 0000.

3.9.1 Deck covering. The Contractor must repair damaged deck coverings on new and disturbed deck areas in accordance with SFLC Std Spec 6341 and Coast Guard Drawing 750-WMSL-634-001.

3.9.2 Slip-resistant deck covering damage repair. The Contractor must prepare and coat damaged deck surfaces, using the system specified in SFLC Std Spec 6310, Appendix A (Cutter and Boat Exterior Painting Systems).

3.10 Label plate. The Contractor must provide and install a label plate on each component tested to document satisfactory test completion in accordance with SFLC Std Spec 5000, Appendix B, Paragraph B2.9 (Label Plates). Engrave or stamped each label plate with the following information specific to each component tested:

- Working load
- Test load
- Test date
- Test facility

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

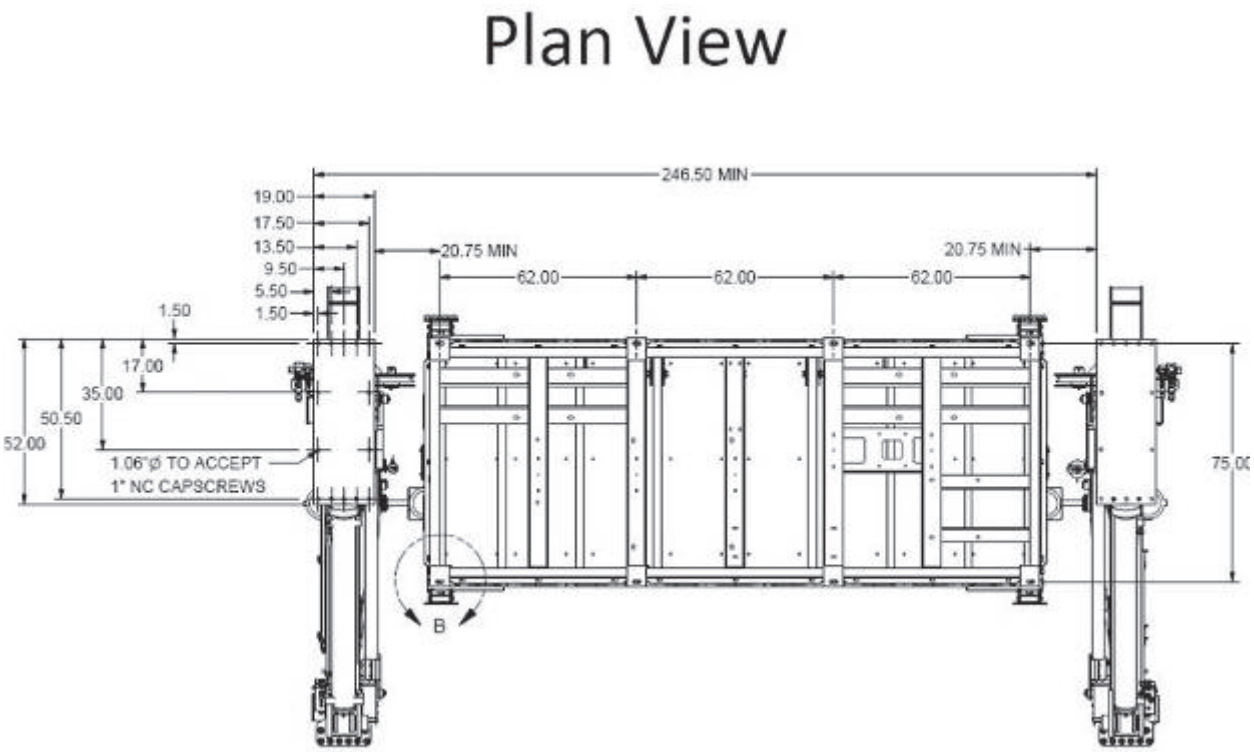

FIGURE 1A: ALLIED SYSTEMS DUAL POINT DAVIT

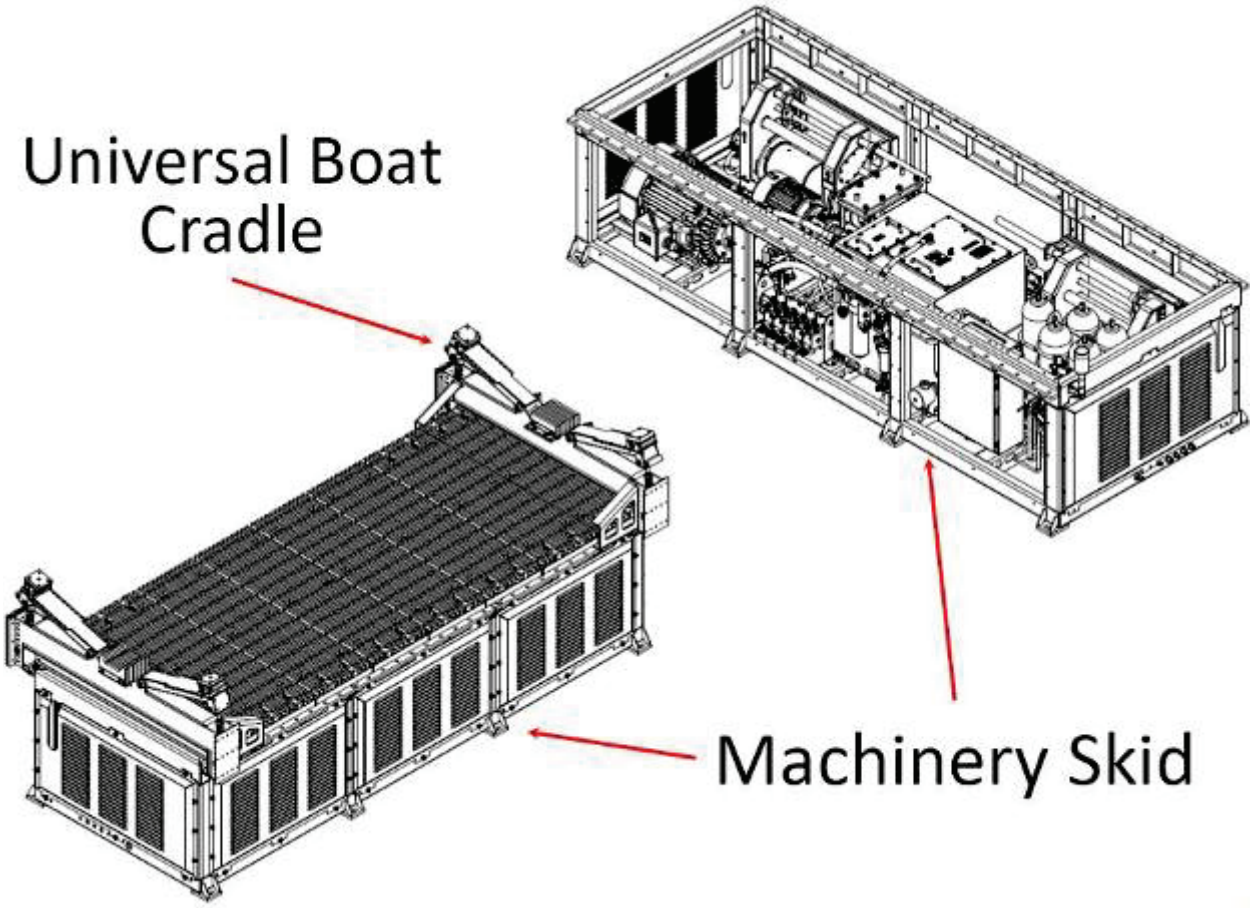

FIGURE 1B: ALLIED SYSTEMS DUAL POINT DAVIT

FIGURE 1B: ALLIED SYSTEMS DUAL POINT DAVIT AT OEM FACILITY

FIGURE 3: CGC STRATTON DUAL POINT DAVIT PHOTOGRAPHS FOR REFERENCE ONLY

WORK ITEM 3: Folding Boom Cranes, Biennial Maintenance, Perform

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to inspect, perform maintenance, and test folding boom cranes listed in Table 1.

TABLE 1 – LIST OF FOLDING BOOM CRANES

CRANE	LOCATION	MANUFACTURER / MODEL NUMBER	COAST GUARD TECH PUB
Crane No. 2	Main Deck, Port Side, Aft of Frame 95	Appleton Marine Inc. / FB90-28	7903
Crane No. 4	Main Deck, Port Side, Aft of Frame 90	Appleton Marine Inc. / FB90-28	7903
Crane No. 3	Main Deck, STBD Side	Appleton Marine Inc. / FB90-28	7903

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
Y	*CB-OTH Mark IV (CG Drawing 26B-CB-IV-801-001)	N/A	1 ea.	N/A
Y	*Long Range Interceptor II (LRI-II) Cutter Boat (CG Drawing 35-LRI-II-801-001)	N/A	1 ea.	N/A
N	Filter, Return (HPU) – for Item 9	4330-01-520-6778 / YMD-8861-R (18LZ5)	1 ea.	$101
N	Filter, Return (HPU) – for Item 19	2940-01-670-3448 / YMD-10416-R (8ZZ5)	1 ea.	$78
N	Filter, Pressure (#2 & #4 Cranes)	2590-01-693-8313 / YMD-12209-R	4 ea.	$1017
N	Filter, Pressure (#3 Crane)	4330-01-694-1197 / YMD-12234-R	1 ea.	$615
N	Filter, Breather (HPU)	2815-01-624-2316 / YMD-12201 (D-AB-2)	1 ea.	$77

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 26B-CB-IV-801-001, Rev -, Booklet of General Plans

Coast Guard Drawing 35-LRI-II-801-001, Rev -, General Arrangement

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_320_579, Rev -, Electrical Installations Iwo New Aft Folding Cranes

Coast Guard Drawing 750-WMSL_583_508, Rev -, Installations IWO Aft Folding Cranes

Coast Guard Fleet Drawing FL_1702_11, Rev -, Inspection of Sheaves

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) 7903, SWBS 583, Oct 2021, Aft Boat Handling System –Model FB90-28

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

Surface Forces Logistics Center Standard Specification 5000 (SFLC Std Spec 5000), 2022, Auxiliary Machine Systems

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

OTHER REFERENCES

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Power Tool Cleaning to Bare Metal

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.3 Inspect and repair task particulars (Task #1, #3 and #7)

3.1.2 Tech Rep. The Contractor must provide the services of an OEM Authorized/licensed Tech Rep for Appleton Marine Inc. Model FB90-28 cranes to accomplish the following tasks 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.
- Oversee the initial operation/inspection
- Oversee the final operational and load testing

3.1.2.1 The Contractor must submit the name and resume of the Tech Rep to the COR at the Arrival Conference.

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).

3.1.3.1 Protection of fine surfaces. The Contractor must protect all fine surfaces in accordance with SFLC Std. Spec 5000.

3.1.3.2 Hydraulic system contamination protection. The Contractor must maintain existing hydraulic cleanliness in accordance with SFLC Std. Spec 5000.

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:

- Piping
- Electrical Cables

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 Inspect and repair task particulars. The Contractor with Tech Rep support must perform tasks listed in Table 2 in accordance with SFLC Std Spec 5000 and TP 7903. The CG Inspector must be present for all CIR inspections. See applicable drawings and Tech Pub in Section 2 for technical information and installation details.

TABLE 2 – TASK LIST

				ADDITIONAL REQUIREMENTS	
#	TASK TYPE	QTY	COMPONENT OR ASSEMBLY	APPENDIX AND PARA. FROM SFLC STD SPEC 5000	OTHER TECH PUB 7903
1	Operate and Inspect	3	Folding Boom Crane	3.2.1	Submit a CIR. Document the existing software program/version.
2	Operate and Inspect	1	Chest Pack (Chest Pack Controls and Junction Boxes)	3.2.1	Submit a CFR. Note: There is one chest pack. It should be rotated between all three cranes.
3	Operate and Inspect	1	Control Console	3.2.1	Submit a CIR.
4	Service & Inspect & Groom & Lubricate	3	Crane Assembly	3.2.2	Perform **all** preventive maintenance actions in Table 4-1 of CG TP 7903, regardless of specified interval. Inspect hydraulic hoses for leaks, abrasions, swelling and defects. Inspect entire Folding crane assembly for signs of leakage, cracks, structural damage and deformations. Submit a CFR. **NOTE 1**: Only check the torque of 25% of

				ADDITIONAL REQUIREMENTS	
#	TASK TYPE	QTY	COMPONENT OR ASSEMBLY	APPENDIX AND PARA. FROM SFLC STD SPEC 5000	OTHER TECH PUB 7903
					the Turntable Bearing Mounting Bolts (4-3.18.1) – Include a diagram of the bolts that were checked in the CFR for this section. **NOTE 2**: Take off removable hose sleeves and hose fitting tape for inspection. Reinstall hose sleeves and renew the fitting tape upon completion of inspection.
5	Service and Inspect	3	Cranes (Mechanical/Hydraulic)	3.2.2	Inspect Swing Drives, Swing Motor, Swing Manifold, Hydraulic Swivel, Slew/Turntable Bearing, Slew Bearing Gear, Slew Bearing Bolts, Slew/Turntable Bearing Wear Inspection (see Work Item paragraph 3.6), Main Control Manifold, Wire Rope, ELR Manifold, Heel Pins, Jib Pins, Telescope Cylinders, Slide Pads, Jib and Luffing Cylinders, Sheaves, Crane Block Assembly, 10 Ton Hook, Snatch Block, Winch, Constant Tension System, Overhaul Ball. Fasteners. Submit a CFR.
6	Partially Preserve	3	Folding Boom Crane Assembly	3.2.4, 3.2.4.3.2, 3.2.4.4, and 3.2.4.5.1	
7	Hydraulic Lube Oil Analysis	3	Hydraulic System	C2.1.3.1	Submit a CIR. **NOTE 1**: Acceptable Contamination Level ISO 4406 17/15/12 per TP7903 Appendix A2.7
8	Service and Inspect	1	Hydraulic Power Unit (HPU)	3.2.2	Inspect Prime Mover/Link Motor, HPU Pumps, HPU Reservoir, HPU Tank Heaters, Oil Cooler, Renew Tank Breather with GFP, HPU Manifold and hoses. HPU Temperature Transmitter, HPU Display, HPU Controls, Joysticks and Control Cabinet in accordance with TP 7903.
9	System Relief Valves, Switches and Indicators	1	Hydraulic System		In accordance with TP 7903, verify set points, adjustment and calibration on: • Pump Compensator Relief Valve • System Relief valve. • Winch Limit adjustment. • Load Monitor Indicators • Crane Position Indicators • Submit a CFR.
10	Disassemble and Inspect	1	Hydraulic Oil Heat Exchanger	3.2.3	Disassemble to the minimum extent necessary to clean the heat exchanger.

				ADDITIONAL REQUIREMENTS	
#	TASK TYPE	QTY	COMPONENT OR ASSEMBLY	APPENDIX AND PARA. FROM SFLC STD SPEC 5000	OTHER TECH PUB 7903
11	Service and Inspect	2	Hydraulic System Crane Motor A and B	3.2.2	Perform Insulation Resistance Test in accordance with ANSI/EASA AR 100-2020.and Section 3 of TP 7903. Submit a CFR.
12	Service and Inspect	3	Cranes (Electrical)	3.2.2	Inspect Load Pin, Boom Angle Transducer, Jib Angle Transducer, Swing Angle Encoder, Length Transducer, Turret Enclosure, Flood lights and Electrical Cables.
13	Operational and Weight Test	3	Folding Boom Crane Assembly		Perform in accordance with paragraph 3.5 of this work item.
14	Fabricate and Install	3	Label plate	B2.9	Name Plate must also include additional information of Dynamic Load Test, Brake Test and WLL Weights.

3.3.1 Materials. The Contractor must provide all material (i.e. greases, wax, lubricating oils, hydraulic fluid, and other miscellaneous materials) as required to perform the maintenance tasks listed above. All filters will be provided as GFM.

3.3.2 Hose inspection. The Contractor must visually inspect the condition of all flexible hoses; TP7903 has a comprehensive list of hoses and their locations. Submit a CFR with the following:

- Hose number
- Hose physical condition
- Service life dates (date for required hose renewal; if not specified, add twelve years to installation date)

3.3.2.1 If not present, the Contractor must provide new hose tags, in accordance with SFLC Std Spec 5000, Paragraph C2.2.1.4. Ensure tag color coding of black on natural or black on white. Ensure that tags must be attached using materials that will not damage hose assembly in any way or interfere with the normal flexing motion of the hose.

3.3.2.2 The Contractor must stamp, engrave, or etch the following information on each tag. Handwritten information on each Tag is NOT acceptable. Utilize the Cutter's hose log for information as necessary.

- Hose Log Item Number (Serial Number)
- Hydrostatic Test Pressure (psi)
- Hydrostatic Test Date (DD/MM/YY)
- Service Life (Replacement Date) Date (QTR "Q"/FY)

3.3.2.3 Hose fitting documentation. The Contractor must inspect each hose and document the information listed below. A template for the information will be provided by the COR. Submit a CFR with the information for each hose in Microsoft Excel format.

- Hose Number
- System
- Description (i.e. #1 A/C Inlet)
- Location (Compartment Number)
- Length (in.)
- Part No.
- Material
- Size (in.)
- Fitting #1
- Fitting #2
- Design Pressure (psi)
- Hydrostatic Pressure (psi)

3.4 Preservation requirements. The Contractor must perform the following work to accomplish the first bulleted requirement of SFLC Std Spec 5000 (Para 3.2.4.3.2).

3.4.1 All other requirements as specified from SFLC Std Spec 5000 regarding "Partially Preserve" remain applicable.

3.4.2 In addition to partial preservation, abrade entire crane surface and provide aesthetic topcoat.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

NOTE

Certain water weight bags may be too large to fit within the notch. Ensure test weights can fit within the notch to accomplish all testing.

CAUTION

Do not exceed the Working Load Limit (WLL) of the cranes for any of the tests listed in Appendix A, CG TP 7903. Exceeding the WLL could result in equipment damage and/or personnel injury.

3.5 Operational and Weight Testing. The Contractor must perform the following test items from Appendix A of CG TP 7903. Record all testing data in Appendix A, CG TP 7903 (as required), submit via CFR.

- Item 2.0 - Individual Crane Tests
  - Perform all tests and record all data in this section except Item 2.1 (Static Load Test).

- Item 3.0 - Dual Crane Controls, Crane #2 & 4 - Boat Handling
  - Starting with both cranes in the Stowed Position, in Dual Control Mode, transfer a boat from Launch Position #1 to Launch Position #5, then back to Launch Position #1. Move the cranes back to their Stowed Position.
    - Recorded measurements of Height, Angle, Position, and Time are not required.
    - Perform this test one time.
- Item 4.0 - Crane #3 - Boat Handling
  - Starting with crane in the Stowed Position, transfer a boat from Launch Position #1 to Launch Position #3, then back to Launch Position #1. Move the crane back to the Stowed Position.
  - Recorded measurements of Height, Angle, Position, and Time are not required.
  - Perform this test one time.
- Item 5.0 - Crane & HPU Functional Test
  - Task #2 of the work item satisfies Item 5.3.6 (Remote Chest Pack).
  - Submit all test data in this Item.
- Item 6.0 - C.T. Winch Function
  - This test does not need to be performed in conjunction with any other test as indicated in Item 6.2. The test will be conducted pier side with test weight(s) totaling 9,500 lbs. suspended by Contractor provided crane.
  - Do not perform Item 6.4 (Objective Boat Handling)
  - Submit all test data for section 6.3.
- Item 7.0 - Crane Safety Features
  - Perform all tests and submit all test data in this Item.
- Item 9.0 - Testing Witnessed and Accepted By
  - Submit with testing results.

3.5.1 The Contractor must supply weights and a certified dynamometer to conduct load testing used during testing for traceability purposes, submit CFR with certification details.

3.5.2 Utilize test weights that will ensure the boom can be extended horizontal in the notch.

3.5.3 Perform all testing in the presence of the Coast Guard Inspector and the Tech Rep.

3.5.4 Perform all testing with cutter at or near 0-degree trim and 0-degrees list. Provide the COR at least 72 hours of notice before testing.

NOTE

The rolling element diameter in the turntable bearing is 1.75” ball style. Therefore, the maximum allowable tilt increase is 0.075” per CGTP 7903 Appendix B Table 3.22.

3.6 Bearing Wear Inspection. The contractor must conduct a bearing wear inspection of the turntable bearing, for all cranes in Table 1, in accordance with CG TP 7903 Appendix B. Submit a CFR with test results as compared with the baseline measurements in Appleton Marine’s database.

3.7 Calibrated Equipment. Record calibration details, including serial numbers, for all calibrated equipment used while conducting this work item. Submit via CFR.

3.8 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.

3.9 Touch-up preservation. The Contractor must prepare and coat all new and disturbed exterior and interior surfaces to match existing adjacent surfaces, in accordance with SFLC Std Spec 6310. Abide by all touch-up requirements outlined in SFLC Std Spec 6310.

4. NOTES

Interval	Maintenance Action	Paragraph
W	Lubricate grease fittings	4-3.1
W	Lubricate lifting hook	4-3.1
W	Lubricate turntable bearing	4-3.3
M	Lubricate turntable bearing gear teeth	4-3.4
M	Check HPU tank breather for cleanliness	4-3.12
Q	Inspect wire rope, clean and lubricate as necessary	4-3.10
M	Check gear oil in swing-drives	4-3.6
Q	Check gear oil in winches	4-3.8
Q	Clean and wax hydraulic cylinder rod	4-3.7
Q (R)	Change hydraulic oil pressure filter element	4-3.15
Q (R)	Change hydraulic return filter elements	4-3.16
A (R)	Change gear oil in winch	4-3.9
A (R)	Change gear oil in swing drives	4-3.6
A (R)	Check winch mounting bolts torque	4-3.18.2
A (R)	Check turntable bearing mounting bolts torque	4-3.18.1
A (R)	Check swing drive bolts torque	4-3.18.3
A (R)	Check all graded bolts torque	4-3.18
A (R)	Clean HPU suction strainers and magnetic plug	4-3.14
A (R)	Change/Clean Hydraulic Fluid	4-3-13
A (R)	Replace HPU Tank Breather	4-3-12
A (R)	Inspect noise suppressor for loss of nitrogen pressure	4-3.17

Table 3 – Maintenance list, Table 4-1 from CG Technical Publication 7903. Paragraphs listed are found in TP 7903.

WORK ITEM 4: Ship Service Diesel Generator, Engine Major Overhaul

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform the Major Overhaul on the Ship Service Diesel Generators (SSDG) Caterpillar 3512B Diesel listed in Table 1.

TABLE 1 – NAME PLATE DATA

CATERPILLAR MODEL NO.	DESCRIPTION	LOCATION
3512B	No.1 Ship Service Diesel Generator,1360 KW, 450 Volt AC, 3 Phase, 60 Hz	Auxiliary Machinery Room (5-36-01-E)

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
Y	CRANKSHAFT	NSN: 2815-01-511-2837 PN: 128-6786	1	42,164.08
N	WIRING HARNESS	PN: 445-7604	1	5,000.00
N	WIRING HARNESS	PN: 445-7605	1	5,000.00
N	WIRING HARNESS	PN: 260-0003	1	5,000.00
Y	CYLINDER PACK	PN: 10R-4343	12	2,986.49
Y	TURBOCHARGER	NSN: 2950-01-505-2590 PN: 509-1016	2	12,649.08
Y	FUEL INJECTORS	NSN: 2910-01-576-1910 PN: 392-0217	12	1979.73
N	VULKAN COUPLING	PN: 2X4103A003	1	4,515.00
Y	HEAD GP-CYL BSC	PN: 3356220	12	2,732.87
N	SEAL-O-RING	NSN: 5330-01-517-8234 PN: 0336031	3	1
Y	ROCKER ARM AS	NSN: 2815-01-517-8234 PN: 281-6159	12	242.69
Y	ROCKER ARM AS	NSN: 2815-01-521-1641 PN: 2302621	24	185.36

Y	DAMPER GP-BASIC	PN: 1463740	1	9,516.38
Y	SPRING-INJECTOR	NSN: 5360-01-506-9425 PN: 1003878	12	45.14
N	BEARING-CAMSHAFT	PN: 1011198	14	64.52
N	PLATE-THRUST	PN: 1011365	1	36.53
N	WASHER-THRUST	NSN: 3120-01-517-8256 PN: 1011368	2	1
N	BUSHING	PN: 1011372	1	71.91
N	SEAL-O-RING	NSN: 5331-01-419-3124 PN: 1092332	6	27.91
N	SEAL-O-RING	NSN: 5331-01-477-1958 PN: 1097411	2	40.68
Y	LIFTER AS	PN: 2827944	12	273.23
N	SEAL-O-RING	PN: 1123102	4	6.28
N	GASKET	NSN: 5330-01-506-6825 PN: 1228856	2	2.74
N	BUSHING	PN: 1259751	2	53.86
N	SEAL-INTEGRAL	NSN: 5331-014771961 PN: 1272176	12	6.34
N	BUSHING	NSN: 3120-01-464-9251 PN: 1275400	2	47.50
N	HARNESS AS-WIRING	NSN: 6150-01-508-1233 PN: 1326469	12	17.15
N	SEAL-O-RING (was 6V4589)	PN: 1367227	4	6.67
N	SHIELD AS-EXHAUST	PN: 1406468	1	727.43

N	SHIELD AS-EXHAUST	PN: 1406469	1	754.38
N	BUSHING	PN: 1409597	2	76.14
N	HOSE-ELBOW	NSN: 4730-01-507-1292 PN: 1417143	1	14.67
N	GASKET-PLATE	PN: 1445692	12	23.22
N	SEAL-PLATE	PN: 1492209	65	101.13
N	SEAL-RING	PN: 1515257	2	104.57
N	BUTTON	NSN: 2815-01-517-8778 PN: 1546389	36	10.09
Y	PUMP AS-FUEL PRIMING	PN: 1623906	1	324.77
N	GASKET	NSN: 5330-01-521-3861 PN: 1637826	1	5.50
N	HOSE AS	PN: 1874606	1	66.34
N	SEAL-O-RING	NSN: 5331-00-580-1226 PN: 1H9696	1	0.63
N	BELLOWS AS	PN: 2071364	10	774.65
N	BELLOWS AS	PN: 2071390	2	636.94
Y	LIFTER AS-VALVE	PN: 5744543	24	273.48
N	SEAL-O-RING	PN: 2147566	12	4.54
N	SEAL-O-RING	NSN: 5331-01-513-5210 PN: 2147568	40	3.56
N	HOSE-TEE	PN: 2176692	1	72.40
N	SEAL-O-RING	PN: 2287090	2	5.44
N	SEAL-O-RING	PN: 2287097	1	15.89
N	GASKET	NSN: 5330-01-584-5361 PN: 2301072	2	2.23

Y	SHAFT AS	PN: 2302633	12	315.13
Y	GEAR-FLYWHEEL	PN: 2330643	1	1161.30
N	SEAL-INTEGRAL	NSN: 5330-01-066-5364 PN: 2348937	2	21.34
N	SEAL-O-RING	NSN: 5331-01-521-3862 PN: 2353546	3	27.63
N	SEAL-O-RING	PN: 2385080	3	5.92
N	SEAL-O-RING	PN: 2385081	13	6.67
N	SEAL	PN: 2407032	12	69.21
N	GASKET	NSN: 5330-01-524-2224 PN: 2415928	12	2.34
N	GASKET	PN: 2416236	1	4.82
N	GASKET	NSN: 5330-01-584-5312 PN: 2432288	4	8.50
N	SEAL-O-RING (was 125-9794)	PN: 2594598	1	28.16
N	SEAL-O-RING (was 3P-0654)	NSN: 5330-00-367-5657 PN: 2594600	1	2.25
N	SENSOR GP-TEMPERATURE	PN: 2639597	12	817.36
Y	BRIDGE FLOAT	NSN: 6115-01-555-8293 PN: 2657537	12	46.79
Y	BRIDGE FLOAT	NSN: 6115-01-555-8294 PN: 2657538	12	34.48
N	HOSE	PN: 2693129	1	41.09
N	SEAL-O-RING (was 3P-0655)	NSN: 5331-01-352-9338 PN: 2697885	3	1

N	SEAL	NSN: 5330-015066835 PN: 2720758	12	20.90
N	SEAL	PN: 2720759	12	30.60
N	SEAL-VALVE COVER	PN: 2720760	12	29.10
N	SHIELD	PN: 2843920	2	171.25
N	SEAL-O-RING	NSN: 5331-015872007 PN: 2986387	1	31.60
N	LOCKNUT	PN: 2K4973	4	0.70
N	LOCKNUT	PN: 2N2766	4	7.27
N	GASKET	NSN: 5330-012098048 PN: 2W0752	2	1.77
N	GASKET	PN: 3094550	1	238.81
N	HOSE AS	PN: 3095088	1	75.46
N	SEAL-O-RING (was 7X-1547)	PN: 3103954	1	33.26
N	SEAL-O-RING (waS 6J-2245)	PN: 3237347	12	6.54
N	GASKET-CYLINDER HEAD	PN: 3628264	12	78.79
N	GASKET-HEAT EXCHANGER	NSN: 5330-00-074-3505 PN: 3H5939	1	4.38
N	SEAL-O-RING	NSN: 0000-XF-C34-9124 PN: 3J1907	3	1
N	SEAL-O-RING	NSN: 5331-01-049-1292 PN: 3J7354	2	0.16
N	SEAL-O-RING	NSN: 5331-00-948-6482	5	0.84

		PN: 3K0360		
N	GASKET	NSN: 5330-01-021-9052 PN: 3P6061	1	6.66
N	SEAL AS-WATER	PN: 4200652	48	3.93
N	SEAL AS-WATER	PN: 4200653	48	4.57
N	GASKET	PN: 4289129	12	62.71
N	GASKET	NSN: 5331-01-655-6797 PN: 4289130	20	70.67
N	SEAL-O-RING (was 6V-4368)	PN: 4477206	4	17.49
Y	CAMSHAFT AS	PN: 4522501	1	4,055.19
Y	CAMSHAFT AS	PN: 4522502	1	3,721.33
Y	CAMSHAFT AS	PN: 4522503	1	4,055.19
Y	CAMSHAFT AS	PN: 4522504	1	3,778.94
N	GASKET (was 8N-9885)	PN: 4973911	2	15.08
N	GASKET-COPPER	PN: 5310-00-246-0266 PN: 4B8407	8	1.52
N	SEAL-O-RING	NSN: 5331-00-599-0936 PN: 4F7387	1	3.05
N	GASKET	NSN: 5330-013984225 PN: 4H7869	3	5.01
N	GASKET	NSN: 5330-01-053-4834 PN: 4N1320	2	2.81
N	SEAL-O-RING	NSN: 0000-XF-C36-0329 PN: 4S5898	12	1
N	SHIELD AS-EXHAUST (was 143-0504)	PN: 5051567	1	707.94

N	SHIELD AS-EXHAUST (was 143-0505)	PN: 5051568	1	1,268.79
N	PLATE-SPACER	PN: 5197297	12	385.38
N	SEAL	PN: 5328532	4	25.40
N	HOSE AS	PN: 5755643	2	76.57
N	SEAL-O-RING	NSN: 5331-00-576-5291 PN: 5B4399	1	4.31
N	SEAL-O-RING	NSN: 5331-00-165-1961 PN: 5D5957	9	1.40
N	SEAL-O-RING	NSN: 5331-01-317-9502 PN: 5P0840	27	5.29
N	HOSE	PN: 5P1469	5	0.60
N	SEAL-O-RING	NSN: 5331-01-036-8537 PN: 5P4892	7	12.11
N	SEAL-O-RING	NSN: 5331-01-045-5605 PN: 5P5846	1	1.13
N	SEAL-O-RING	NSN: 5330-01-273-1535 PN: 5P7530	12	9.18
N	SEAL-O-RING	NSN: 5331-01-351-5348 PN: 5P7818	1	25.03
N	SEAL-O-RING	NSN: 5331-01-317-9503 PN: 5P8210	2	8.90
N	BOLT-HIGH TEMPERATURE	PN: 5P8880	4	10.84
N	GASKET	NSN: 5330-00-297-6548 PN: 6F4868	2	3.82
N	SEAL-O-RING	PN: 6J2680	7	4.43

N	SEAL-O-RING	NSN: 5331-01-287-6293 PN: 6K6307	1	7.50
N	SEAL-BONDED	PN: 6V0405	4	4.20
N	SEAL-O-RING	NSN: 5331-01-004-5034 PN: 6V1454	2	0.88
N	SEAL-O-RING	PN: 6V3348	11	9.81
N	SEAL-O-RING	NSN: 5331-01-005-3702 PN: 6V3907	6	3.86
N	SEAL-O-RING	PN: 6V3908	1	29.21
N	SEAL-O-RING	NSN: 5331-01-317-9507 PN: 6V3917	4	37.75
N	SEAL-O-RING	NSN: 5331-00-020-0203 PN: 6V5048	9	0.25
N	SEAL-O-RING	NSN: 5331-01-351-2742 PN: 6V5064	2	7.50
N	SEAL-O-RING	NSN: 5331-01-317-9504 PN: 6V5066	5	5.84
N	SEAL-O-RING	NSN: 5330-01-303-3824 PN: 6V5101	13	25.92
N	SEAL-O-RING	NSN: 5331-01-429-4566 PN: 6V5103	4	41.55
N	SEAL-O-RING	PN: 6V6228	36	7.92
N	SEAL-O-RING	NSN: 5331-014132754 PN: 6V6609	2	1.25
N	SEAL-O-RING	PN: 6V8001	1	23.33
N	SEAL-O-RING	NSN: 5331-01-483-9434	1	25.25

		PN: 6V8002		
N	SEAL-O-RING	NSN: 5330-00-143-8562 PN: 6V8260	1	1
N	SEAL-O-RING	NSN: 5331-01-317-9506 PN: 6V9027	1	1.16
N	SEAL-O-RING	NSN: 5331-01-352-9337 PN: 6V9769	12	2.55
N	WASHER AS-THRUST	NSN: 3120-01-322-6009 PN: 7C3258	2	117.36
Y	VALVE-CHECK	NSN: 4820-01-417-1578 PN: 7E3921	1	115.69
N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-290-8082 PN: 7L6443	80	11.44
N	GASKET	NSN: 5330-01-209-8018 PN: 7N3049	1	48.67
N	WASHER-THRUST	PN: 7N3218	2	66.09
N	GASKET	NSN: 5330-01-208-2922 PN: 7N3368	1	3.58
N	GASKET	NSN: 5330-01-209-4114 PN: 7N4320	2	11.15
N	GASKET	NSN: 5330-01-210-4988 PN: 7N4932	1	2.62
N	GASKET	NSN: 5330-01-208-6754 PN: 7N4945	3	1.54
N	GASKET-MANIFOLD	NSN: 5330-01-208-7589 PN: 7N5080	12	2.84

N	WASHER-THRUST	NSN: 3120-01-322-2933 PN: 7N5246	2	61.95
N	SEAL-RECTANGULAR	PN: 7N6806	4	1.29
N	WASHER-THRUST	PN: 7N7539	2	108.03
N	SEAL-O-RING	NSN: 5330-01-317-9474 PN: 7X4805	3	3.71
Y	ROD END	NSN: 3120-01-350-6917 PN: 7X7875	2	28.20
N	SEAL-O-RING	NSN: 5331-01-449-6223 PN: 8C0562	3	2.53
N	SEAL-THREAD (was 5R-7136)	PN: 8J6775	2	7.02
N	GASKET	NSN: 5331-01-207-0274 PN: 8N2559	1	34.05
N	SEAL-O-RING	NSN: 5331-01-352-9339 PN: 8T1919	14	4.71
N	SEAL-O-RING	NSN: 5331-01-303-1535 PN: 8T2928	3	3.12
N	SEAL-O-RING	NSN: 5331-01-303-1536 PN: 8T2929	3	3.19
N	RING-RETAINING	NSN: 0000-XF-C25-6854 PN: 9F7707	36	2.10
N	GASKET	NSN: 5330- 00-429-3727 PN: 9L1480	2	1.08
N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-429-3096 PN: 9L7373	52	3.35

N	SEAL-O-RING	NSN: 5331-00-951-1574 PN: 9M2610	1	17.60
N	SEAL	PN: 9X7523	2	13.97
N	BOLT-LOCKING	PN: 9X8872	48	0.60
N	GASKET	NSN: 5330-01-317-9529 PN: 9Y8389	2	2.97
N	SEAL	PN: 1073759	2	417.40
Y	CORE AS-AFTERCOOLER	PN: 2828217	1	6,037.79
N	SEAL-O-RING	NSN: 5331-01-317-9506PN: 6V9027	1	1.16
N	MAIN BEARING	PN: 149-6035	7	273.32
N	THRUST PLATE	PN: 7C-6209	2	503.69
N	SEAL-CRANKSHAFT (was 113-8432)	PN: 5697728	1	234.78
N	SEAL-CRANKSHAFT (was 113-8433)	PN: 5697729	1	227.48
N	BEARING-CONNECTING ROD	NSN: 3120- 01-297-7501 PN: 1077330	12	185.26
Y	PUMP GP-F XFR	NSN: 4320-01-609-8802 PN: 313-7770	1	1,214.08
Y	INJECTOR GP-FUEL	NSN: 2910-01-576-1910 PN: 392-0217	12	2531.50
Y	PUMP GP-ENG OIL	NSN: 2815-01-337-8842PN: 4P5638	1	3,645.18
N	SEAL-O-RING (was 3P-0654)	NSN: 5330-00-367-5657 PN: 2594600	2	2.25
N	SEAL-O-RING (was 7X-1547)	PN: 3103954	2	33.26
N	SEAL-O-RING	NSN: 5331-01-350-5345	1	35.42

		PN: 5P8872		
Y	CORE GP-O CLR	PN: 4W4980	1	4,722.77
N	SEAL-O-RING	NSN: 5331-01-419-3124 PN: 1092332	2	27.91
N	GASKET	NSN: 5330-01-543-6637 PN: 2473796	2	10.58
N	BOLT	NSN: 5306-00-260-4508 PN: 0S1594	4	17.04
N	SEAL-O-RING (was 5P-9890)	NSN: 5331-01-564-9568 PN: 1123540	4	8.37
N	SEAL-O-RING	NSN: 5331-01-564-9567 PN: 1367227	2	0.80
N	BOLT	PN: 1653932	2	1.09
N	BOLT (was 0T-0573)	NSN: 5306-01-564-4362 PN: 1653934	2	1.46
N	SEAL	PN: 1782437	2	155.86
N	SEAL-O-RING	NSN: 5331-01-604-9024 PN: 1808424	3	1
N	BOLT	PN: 1A5964	4	2.03
N	HOSE AS	NSN: 4720-01-543-1695 PN: 2525658	2	24.37
N	GASKET	NSN: 5330-01-543-6619 PN: 2528374	2	11.21
N	BOLT	NSN: 5306-01-684-3553 PN: 3008579	8	25.51
N	NUT-FLANGE	PN: 3102233	8	2.88

N	GASKET	NSN: 5330-01-584-5356 PN: 3419211	8	2.37
N	HOSE AS	PN: 3836859	1	64.55
N	GASKET-EXHAUST	NSN: 5330-01-684-3696 PN: 4537800	4	5.40
N	GASKET	NSN: 5330-01-506-6843 PN: 4P4460	2	1.26
N	HOSE AS	PN: 5326587	1	58.42
N	BOLT-HIGH TEMPERATURE	PN: 6V1943	12	1.90
N	SEAL-O-RING	NSN: 5331-01-351-2742 PN: 6V5064	1	7.5
N	SEAL-O-RING	NSN: 5331-01-413-2754 PN: 6V6609	7	1.25
N	BOLT-HIGH TEMPERATURE	NSN: 5306-01-525-1412 PN: 6V6753	8	5
N	GASKET	NSN: 5330-01-208-2922 PN: 7N3368	1	3.58
N	GASKET	NSN: 5330-01-377-5325 PN: 7N7559	2	7.38
N	SEAL-O-RING	NSN: 5331-00-973-8301 PN: 8L2786	2	0.55
Y	TURBO GP-BASIC	NSN: 2950-01-505-2590 PN: 5091016	2	12,649.08
N	SEAL (was 149-5462)	PN: 2714926	1	15.52
N	SEAL-O-RING	PN: 5H6734	1	10

Y	PUMP GP-WATER	PN: 4160610	1	1,000
N	SEAL-O-RING	NSN: 5331-01-521-3862 PN: 2353546	1	27.63
N	GASKET	NSN: 5330-01-333-9921 PN: 5N1940	1	6
N	SEAL-O-RING	PN: 6V3348	1	10
Y	AUXILIARY WATER PUMP GP	PN: 540-4708	1	3,686.84

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_540_1, Rev C, Fuel Oil Diagram

Coast Guard Drawing 418A-WMSL_540_2, Rev A, Diesel Eng And Gas Turb LO Fill, Trans, & Service Sys

Coast Guard Drawing 418A-WMSL_551_1, Rev A, Compressed Air Diagram

Coast Guard Drawing 750-WMSL_501_2, Rev E, Machinery Arrangement

Coast Guard Drawing 750-WMSL_508_1, Rev C, Piping and Machinery Insulation Schedule and L/M (ASC508001)

Coast Guard Drawing 750-WMSL_520_1, Rev H, Seawater Cooling System Diagram (ASC520001)

Coast Guard Drawing 750-WMSL_635_2, Rev K, Insulation Arr & Details Thermal, Acoustic, & Fire (ASC635002)

Coast Guard Drawing FL-1204-3, Rev A, Fleet Welded Padeyes And Links

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) 7119, Rev A, SWBS 311, Dec 2023, Ship Service Diesel Generators Model 3512B

Coast Guard Technical Publication (TP) 7368C, SWBS 311, Feb 2022, Ship Service Diesel Generators (SSDG) Model 3512B Parts Manual

Coast Guard Technical Publication (TP) 14025, Rev A, Apr 2025, Ship Service Diesel Generator Sets Caterpillar 3512B Marine Auxiliary Technical Manual Volume 1

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 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.1 (SSPC-SP 1), 2016, Solvent Cleaning

American National Standards Institute (ANSI/EASA) AR100, 2020, Recommended Practice for the Repair of Rotating Electrical Apparatus

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.5 Contractor furnished equipment (CFE)

3.1.2 Tech Rep. The Contractor must provide the services of an OEM authorized/ licensed Tech Rep for the Caterpillar SSDG (Engine Model No. 3512B) to accomplish the following on site:

- Provide manufacturer's proprietary information, software, and tools pertinent to the equipment/system.
- Assist with proper repair methods and ensure compliance with manufacturer's procedures and standards during disassembly, inspection, repair, modification, calibration, and reassembly of the equipment/system.
- Advise on manufacturer's proprietary information pertinent to the system.
- Ensure compliance with manufacturer's procedures and standards during the performance of the work item.

3.1.2.1 Ensure the Tech Rep has a résumé of demonstrated experience with the system/equipment stated above.

3.1.2.2 Submit the Tech Rep’s name and résumé to the COR at the Arrival Conference.

3.1.2.3 The Technical Representative must be present, on site, while the following engine work is being performed:

- Disassembly
- Inspection and Qualification of Parts
- Maintenance Listed in Paragraph 3.6 herein
- Re-assembly of Engine
- Engine Final Preparation for Testing
- Engine Cleaning
- Engine Testing

- Troubleshooting
- System Adjustments

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).

3.1.3.1 Overhead wipe down. Prior to commencing work, the Contractor must protect the open sections of the engine with a drop cloth to prevent contamination of the engine. Wipe down the overheads above SSDG, including all framework, stiffeners, piping, intake piping, exhaust piping, and other items in the overhead to remove dirt and dust, which could fall into the engine during work.

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:

- Piping
- Insulation
- Electrical wiring
- Overhead lights
- Catwalks will require removing handrails and placing adequate supports/shoring under, if they are intended to be used to hold heavy engine parts
- Exhaust system
- Intake system

3.1.5 Special tools. Overhaul of the engine requires the use of special tools. The Technical Manual describes the tools needed. The Contractor or the Technical Representative being supplied by the Contractor is responsible for supplying all of the special tools and any other tools needed to overhaul the engine. The ship does not have any of the special tools required for overhaul of the engine

3.1.6 Testing plan. The Contractor must submit a plan for final break-in and testing of the SSDG in Table 1 in accordance with Tech Rep direction, Cutter Operating Procedures, requirements of Paragraph 3.3 herein and TP 7119 (both for prime mover and National Oilwell Varco alternator). The test plan must include a CAMPAR test to be performed by the Tech Rep. Submit the testing plan no later than one week after the Arrival Conference via a CFR.

3.1.6.1 The Contractor must obtain the Caterpillar Tech Rep's approval of the Testing Plan.

3.1.6.2 No testing can commence before COR approval.

3.1.6.3 The plan must cover the following topics at a minimum:

- Procedures to handle emergencies during the testing process (fire, engine casualty, injury, etc)
- Method of testing E-Stop and automatic safety shutdowns (including high coolant temperature and low oil pressure automatic shutoffs)
- Load bank specification and location (final operational test only)
- Cable locations for load bank
- No-load tests
- Loaded tests

- Parallel load sharing
- All proposed connection, cable and load bank configurations
- Data to be collected during tests. At a minimum, this would include:
    - Governor settings/fuel rack position
    - Cylinder exhaust temperature
    - Jacket water temperature
    - Cylinder compression pressure
    - Cylinder firing pressure
    - Crank case vacuum
    - Intake manifold pressure
    - Exhaust back pressure
    - Fuel oil consumption (total consumption over the course of the test)
    - Lube oil consumption (total consumption over the course of the test)

3.1.7 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.

NOTE

Lifting points or padeyes are available in the overhead to assist with lifting engine components.

3.1.8 Rigging. The Contractor is responsible for all rigging with the following considerations:

3.1.8.1 All existing padeyes that will be used for a lift must be pull tested to 1.5 times their Working Load Limit in accordance with SFLC Standard Spec 5000 Paragraph 3.2.7. All testing must occur in the presence of a Coast Guard Inspector.

3.1.8.2. If new padeyes are required, fabricate them in accordance with Coast Guard Drawing FL-1204-3 and SFLC Standard Spec 0740. Newly fabricated padeys must be pull tested to 2 times their Working Load Limit in accordance with SFLC Standard Spec 5000 Paragraph 3.2.7. All testing must occur in the presence of a Coast Guard Inspector.

3.1.8.3. Upon completion of testing, install a label plate in accordance with SFLC Standard Spec 5000 Paragraph B2.9.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.2 Operational test, initial. Prior to commencement of work, in the presence of a CG inspector, 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 with all required data.

3.2.1. The Contractor must oversee the execution the test plan for the SSDG.

3.2.2. The Contractor must inform the COR at least 48 hours in advance of this test.

3.3 Structural measurement After operational test and before disassembly, the Contractor must record crank thrust, web deflection, timing and any gear backlash deemed necessary by the Tech Rep. Submit a CFR with recorded data.

3.4 Alignment measurement. The Contractor must measure the shaft alignment between the shaft couplings using the two dial indicator method or Laser Shaft Alignment as described in TP 7119, Section 20 to determine the initial alignment condition between engine and generator. Record the alignment criteria specified in TP 7119, Section 20. Conduct alignment measurements in the presence of a Coast Guard Inspector. Submit CFR documenting all measurements.

3.5 Contractor furnished equipment (CFE). Prior to starting engine overhaul, the Contractor must submit a CIR with a list of all required parts that are not supplied as GFE. The list must include the part name, part number, and date of delivery (or estimated date, if not currently received) of all CFE to ensure all material arrives on time to support the work schedule.

3.6 SSDG Overhaul (Major). The contractor must execute the Major Overhaul listed in TP 14025 (SMCS Code 7595-020-MJ).

3.6.1 The Contractor is responsible for all engine disassembly and reassembly necessary to complete these repairs and inspections.

3.6.2 The Contractor must drain and disconnect the SSDG engine assembly fluid systems including, but not limited to, fuel oil supply and return, jacket water, sea water, and lube oil systems (Approximately 200-gallons jacket water, 165-gallons lube oil, and 5-gallons fuel oil, per engine assembly). Remove the fluid systems from the Cutter and dispose of in accordance with all applicable federal, state, and local laws and regulations. The Contractor must submit a CFR for an initial wiring diagram of the pre-lube pump prior to unwiring the pump. Contractor shall not proceed to unwire the pump without COR approval.

3.6.3. The Contractor is responsible for all cleaning of the engine required to accomplish these repairs and inspection and for the migration of debris into the engine during work. Dispose of all residual fluids in accordance with Federal, State and Local laws and SFLC Std Spec 0000.

3.6.4. The Contractor must submit a CFR with the inspection results for all components in the “Inspection, Reconditioning or Exchanging of Components” or “Inspection of Components” section. For bidding purposes, assume that the only inspected items that will be renewed are the ones that are provided as GFE. Note clearly in the CFR when any components fail their inspections.

3.6.5 When reassembling the engine, components must be torqued to values given in Coast Guard TP 7119. If no torque value is given in the TP, rely on directions from the Caterpillar Technical Representative.

3.6.6 The Contractor is responsible for disconnecting and reconnecting services to the engine as required to overhaul the engine (further delineated by the full content of this specification), all associated service systems including, but not limited to, exhaust, ventilation, fuel oil, sea water, and lube oil. Reference Section 2 for more information about these systems

3.6.7 Engine components, which require removal for performance of this work item, must be labeled, and stored in a covered and protected location off-ship for reuse. If necessary, cables attached to such items

may also be disconnected and pulled back per SFLC Std Spec 3042. Ensure that all reused items have been thoroughly cleaned of excess lubricants and soot.

3.6.8. Any items listed as MTI must be cleaned of excess lubricants and soot and packed in the containers that had the new components.

3.6.8. Table 2 provides information about the SMCS code for various pieces of equipment as shown in TP 7119. This is NOT an exhaustive list of all the work that must be done in the scope of this work item.

3.6.9. Driven equipment will be addressed in Paragraph 3.8 herein.

3.6.10. Submit a CFR for magnetic particle inspections of the crankshaft or camshaft in accordance with SFLC Std Spec 0740.

3.7 Diesel engine final cleaning. After completion of engine repairs and overhaul, the Contractor must open and clean the engine crankcase. Wipe out the crankcase using lint free rags. After cleaning, inspect the crankcase in the presence of the Technical Representative and the Coast Guard Inspector. Verify no foreign objects are in the crankcase. Submit a CFR.

3.8 Electrical Maintenance. Clean outside of the generator and its ventilation screen to remove dirt, dust, oil or other contamination. If necessary to remove stubborn deposits of grease, oil or similar substances, a clean cloth moistened with a non-flammable cleaning solvent can be used. Clean the inside of the generator by using a vacuum cleaner or dry low pressure compressed air, 25 PSI maximum, to remove any accumulation of dirt, dust or other gritty particles. Stubborn deposits of grease, oil or similar substances on the metal components that are located away and clear of the windings and insulating components may be cleaned using a clean cloth moistened with a nonflammable solvent.

3.8.1 Inspect the area surrounding the bearing for sign of excessive leakage of oil or grease. Submit a CFR.

3.8.2 Perform megger test on the generator in accordance with (ANSI/EASA) AR100 and submit a CFR.

3.9 Alignment. The Contractor must measure final generator shaft to engine shaft alignment using the two dial indicator method or Laser Shaft Alignment as described in TP 7119. Conduct final alignment measurements in the presence of a Coast Guard Inspector. Alignment criteria must be in accordance with TP 7119, Section 20. Submit CFR documenting all measurements.

3.9.1 In the presence of the CG Inspector, fill the engine's jacket water with contractor furnished Caterpillar Extended Life Coolant (CAT ELC).

3.9.2 In the presence of the CG Inspector, fill the engine's lube oil sump. Lube oil will be furnished from ship's lube oil storage tanks.

NOTE

Final filling of engine sumps with lube oil will be performed by the Coast Guard using onboard piping, valves, and lube oil storage tanks.

3.9.3 The Contractor must re-ream the holes as needed to install new alignment dowels (Pin). The dowels must be installed on each side and on the forward end (closest to coupling) of the generator.

3.9.4 After alignment is accomplished with acceptable readings, the Contractor must reconnect the coupling using a new elastomeric coupling piece and install coupling guard.

3.9.5 Check engine timing in accordance with CG TP, and the Technical Representative's guidance.

3.9.6 The Contractor must replenish the lube oil storage tanks with approximately 165-gallons used to refill each engine. Exact quantity and type of lube oil shall be verified by Coast Guard Inspector prior to scheduling this operation.

3.10 Perform the following checks in accordance with instructions provided in the manufacturer's Technical Manual. These checks are described in the technical manual under the section on System Operation Testing and Adjusting, Section 7, TP 14025.

- Fuel System Inspection
- Fuel Injector Testing
- Engine Rotation
- Camshaft Timing
- Set Valve Clearances
- Cooling System Pressure Test
- Safety Switch Operation

3.10.1 Prior to the performance of engine testing, conduct a comparison of all gages and pyrometers that will be used to record the engine's performance against a certified standard to ensure accuracy of reporting. Provide a CFR listing the gage readings between local and remote gages. Take final crankshaft web deflection readings and record on a CFR. Compare readings with the pre-overhaul readings taken earlier in this specification item. Show the pre-overhaul crankshaft deflection readings and the post overhaul readings to the COR and to the Technical Representative for final approval.

3.10.2 Prior to operational testing, set and adjust the engine overspeed trip in the presence of the Technical Representative and the Coast Guard Inspector. Document successful testing with a CFR before proceeding with the rest of the test.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment. Ensure a person is standing by the emergency shutdown when starting the engine after maintenance.

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.

3.11.1 All system adjustments must be performed by the Contractor in accordance with TP 7119 and Caterpillar Technical Representative's guidance, to provide satisfactory operation of the SSDG engines throughout the range of operation.

3.11.2 The Contractor must provide at least one (1) person to attend the ship during engine testing to record test data, and require the Tech Rep to attend the ship during engine testing and break-in.

NOTE

Machinery Control and Monitoring System (MCMS) setup will be performed by Coast Guard Personnel.

3.11.3 The Contractor must execute the final test plan.

3.11.3.1 The Contractor must provide a resistive load bank (i.e. 450 Volt, 1500 KW) with cabling (approximately 250 ft.) and accessories to test the SSDG listed in Table 1. The load bank must be placed on the pier or the cutter at the discretion of the COR. The Contractor must provide any additional labor or crane services as necessary for the setup, operation, and disassembly of the load bank and associated cabling or accessories.

NOTE

Switchboard 1 supplies electricity for the VCHT system.

3.11.3.2 The Contractor must check all piping system joints for tightness and correct, as required.

3.11.3.3 In addition to measurements taken in the test plan, the Contractor must operate the engine at no load and low idle at approximately 900 RPM. Run for 15 minutes, or until temperatures and pressures stabilize, whichever comes soonest. Stop the engine, remove crankcase covers and measure and record conrod and main bearing temperatures. Any unusual operating conditions must be corrected by the Contractor. Submit a CFR with test results.

3.11.3.4 In addition to measurements taken in the test plan, the Contractor must operate the engine at no load at 1800 RPM. Run for 15 minutes, or until temperatures and pressures stabilize, whichever comes soonest. Stop the engine, remove crankcase covers and measure and record conrod and main bearing temperatures. If any unusual readings are experienced, notify the COR. Any unusual operating conditions must be corrected by the Contractor. Submit a CFR with test results

3.11.3.5 The Contractor must provide engine diagnostic data directly from the engine for all no-load testing.

3.12 Thermal insulation installation. The Contractor must renew any disturbed insulation in accordance with Coast Guard Drawings 750-WMSL-508-001 and 750-WMSL-635-002.

3.13 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, (Touch-ups and minor coating repairs).

3.14 Preservation and compartment restoration. Upon completion of assembly and all testing, wipe down and clean the engine exterior. Solvent wipe the exterior surfaces in accordance with SSPC-SP 1 and SFLC Std Spec 6310.

4. NOTES

TABLE 2 – MAINTENANCE ITEMS

ITEM	SMCS CODE
Aftercooler	1063-040 1064-571
Air Cleaner Housing	1051
Air Inlet Shutoff / Damper	1078-081 1078-535 1078-011
Air Starting Motor/Electric Starting Motor	1451-040 1451-535 1451-070
Camshaft	1210
Cooling System	1371
Crankshaft	1202
Crankcase Breather	1317
Crankshaft Front Seal	1160
Crankshaft Rear Seal	1160
Crankshaft Main Bearing	1201
Cylinder Heads	1100
Electrical Components	1063/1395 1924 1907-070 1052/1919
Engine Mount	1152-535
Engine Oil Cooler	1300
Engine Oil Filter Housing	1318
Exhaust Manifolds	1059
Flywheel & Flywheel Housing	1156 1157
Fresh Water Pump	1361-040
Front Drive Housing	1260
Front Gear Group	
Fuel Filter Elements and Filter Housing	1260
Fuel Injection Control Linkage	1290
Fuel Injectors	1290
Fuel Lines	1290
Fuel Pressure Regulating Valve	1250-081
Fuel Transfer and Priming Pump	1256
Heat Exchanger	1350
Intake Manifold	
Lube Oil Filter Bypass Valve	
Lube Oil Filter Elements	

ITEM	SMCS CODE
Lube Oil Valves	
Oil Sequencing Valves	
Oil Pan and Oil Pan Screen	
Oil Pump	1304
Piston and Connecting Rod Assemblies and Cylinder Liners	1214 1218
Piston Cooling Jets	1214
Pressure and Temperature Gauges and RPM Indicators on Local Control Panel	
Rear Gear Group	1202
Turbocharger	1052-040
Valve Covers, Rocker Shaft Assemblies, and Push Rods	1102
Valve Lifters and Guides	1102
Vibration Damper	1205
VULKAN Coupling	
Water Temperature Regulators	1408
Zinc Rods	1388-040 1388-510

WORK ITEM 5: RQAWTS 12 D (1-93-1 and 1-93-2), Renew

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew quick-acting watertight scuttles listed in Table 1 with Government-furnished property in Table 2.

TABLE 1 RAISED QUICK-ACTING WATERTIGHT SCUTTLE 12 INCH DIAMETER

CLOSURE ID	LOCATION	DESCRIPTION
RQAWTS 1-93-1	Weather 1-93-1 to Boatswain Storeroom 2-88-1-A	12 in D Raised Quick-Acting Watertight Scuttle, w/ Coaming 6in x 3/16in, Steel, Aft Hinge, 15 psi
RQAWTS 1-93-2	Weather 1-93-2 to DC Storeroom 2-88-2-A	12 in D Raised Quick-Acting Watertight Scuttle, w/ Coaming 6in x 3/16in, Steel, Aft Hinge, 15 psi

Note : All information is for bidding purposes only.

1.2 Government-furnished property.

TABLE 2 GOVERNMENT FURNISHED PROPERTY

MTI	ITEM DESCRIPTION	NSN/PN	QTY	PRICE ($/UNIT)
N	12 in D Raised Quick-Acting Watertight Scuttle, w/ Coaming 6in x 3/16in, Steel, 15 psi	Juniper P/N : JE31890-SRQXB02	2 ea.	7,000.00 (incl. S&H)

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

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 750-WMSL_100_45, Rev K, 2nd Dk to Main Dk - Fr 82 to Aft (ASC100333)

Coast Guard Drawing 750-WMSL_167_7, Rev C, Hatch & Scuttle List Ship Wide, NSC 3 and Follow (AS3167003)

Coast Guard Drawing 750-WMSL_635_2, Rev K, Insulation Arr & Details Thermal, Acoustic, & Fire (ASC635002)

Coast Guard Drawing 750-WMSL_635_502, Rev -, Insulation Arr & Details Thermal, Acoustic, & Fire (WMSL 754 & Follow)

NAVSEA Drawing 803-1623053, Rev -, Scuttle, WT, Raised, Quick Acting, 12 Dia 15 psi-Arrangement

NAVSEA Drawing 803-5184182, Rev B, Insulation, Passive Fire Protection- Installation Details

NAVSEA Drawing 804-5773931, Rev A, Acoustic & Thermal Insulation for Compartments Installation Details

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

American Society for Nondestructive Testing (ASNT), Recommended Practice No. SNT-TC-1A, 2020, Personnel Qualification and Certification in Nondestructive Testing

American Society for Nondestructive Testing (ASNT), Standard No. ANSI/ASNT CP-189-2020, 2020, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

American Welding Society (AWS) D1.1/D1.1M, 2020, Structural Welding Code – Steel

MIL-PRF-900, 2020, Rubber Gasket Material, 45 Durometer Hardness

MIL-PRF-1149E, 2019, Gasket Materials, Synthetic Rubber, 50 and 65 Durometer Hardness

MIL-STD-1689A, 1990, Fabrication, Welding, and Inspection of Ships Structure

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Bare Metal Power Tool Cleaning

NOTE

For Navy's Drawings, Documents, or any other References under "DISTRIBUTION STATEMENT D: Distribution authorized to DoD and DoD contractors only", please let the Contractor directly contact the Navy for obtaining them.

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraphs:

- 3.3 Inspection

3.1.2 Tech Rep. The Contractor must provide the services of Tech Reps and Personnel as follows:

- Marine Chemist
- NDE Tech Rep : NDE Inspector/Level 2

3.1.2.1 Marine Chemist. The Contractor must provide the services of Marine Chemist/Gas Free in accordance with Work Item General Requirements and SFLC Std Spec 0000.

3.1.2.2 NDE Tech Rep. The Contractor must provide the services of a qualified and certified NDE Inspector/Level 2 as follows:

- Perform NDE Operations and Inspections.

3.1.2.2.1 Qualifications/certifications. NDE Inspector/Level 2 certified and qualified in accordance with ASNT No. SNT-TC-1A. Submit the Tech Rep's qualifications/certifications to the COR at the Arrival Conference.

3.1.2.2.2 Dates of services. Include the dates of services in which Tech Reps must be on site as per their subcontract documentation.

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).

3.1.3.1 Specific protections. Specific areas/equipment/ components to be protected include, but are not limited to:

- Machinery spaces (e.g. Crane Equipment Rooms)
- Machinery and equipment (e.g. Cranes, Controls, and Terminals)

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 :

- Machinery and equipment (e.g. Cranes, Controls, and Terminals)
- Ventilation systems (e.g. ventilation inlets/outlets, and trunks)
- Electronics (e.g. sensors, switches)
- Foundations, outfits, and fittings
- Switches, controls, and terminals
- Lights, alarms, speakers, sensors, switches, and supports
- Piping and supports
- Cables and supports

3.1.5 Work locations. The concerned work areas are listed in Table 1. See the applicable drawings in Section 2 References for guidance, locations, and details.

3.1.6 Materials, tools, and services. The Contractor must provide service, tools, and materials to accomplish the requirements in this work item. New components, parts, materials, and paints with the same color, comparable and matching material properties as the existing components/parts. Use references in Sections 1, 2 and SFLC Std Specs for guidance, required materials, and details.

3.1.7 Work plan. The Contractor must provide a work plan for the Watertight Closures Renewal listed in the Table 1 to the COR at the Arrival Conference.

3.2 Operational test – initial. Prior to commencement of work, the Contractor must witness Coast Guard personnel perform an initial operational test of the equipment listed below to demonstrate existing operational condition. Submit a CFR.

- Sensors

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.3 Inspection. In presence of Coast Guard Inspector, the Contractor must inspect substrates (bulkheads/decks), closure assemblies, coamings, and fittings for any related discrepancies, damages, defects, or corrosions before, during, and after performing required works in accordance with SFLC Std Spec 0740. Submit a CIR.

- Inspection of closure assembly prior to installation (to detect any closure manufacturer discrepancies, ordering discrepancies, shipping damages, or storage damages).
- Inspection and preparation of substrate prior to closure installation (to ensure acceptable substrate fairness).

3.4 Renewal. The Contractor must accomplish the following tasks, using drawing in Section 2 as guidance :

3.4.1 Removal. The Contractor must crop, remove, and dispose of the designated closures including associated coaming if required, in accordance SFLC Std Spec 0740.

- Remove nameplates and labels.
- Remove sensors and mounts, and retain for restoration.
- Remove coaming supporting brackets/chocks. Separate existing coaming from thru-deck coming/pipe at welding seams. Must not cut plates.
- Keep all cutting of watertight closures as close to the existing edge of welding seams, plate opening or below but close to the existing connection line if welded on raised coamings or pipes as possible.

3.4.2 Installation. The Contractor must install a new Government-furnished closure assemblies in place of the ones removed in accordance with SFLC Std Spec 0740, and NAVSEA Drawing 167-7379842. Perform all necessary modifications to ensure a proper fit. Accomplish tasks as follows :

- Weld using proper welding procedures.
- Renew coaming supporting chocks and brackets.
- Adjust lock and secure mechanism for proper fit.

NOTE

Closure securing latches, both integral to the closure and mounted to the ship's structures, may require modification or relocation to achieve proper functionality. These modifications include, but are not limited to, relocating securing latch fixtures, adjusting the position of the closure, or the fabrication and installation of a new securing device. Relocation and modification of securing latches will be at the direction of the Coast Guard Inspector.

3.5 Alignment and fairness tests. In presence of Coast Guard Inspector, the Contractor must measure alignment and fairness of the newly welded structures (e.g. bulkheads/decks, frames/coamings, girders, and stiffeners) in accordance with SFLC Std Spec 0740, Paragraph 3.5 Fairness, and MIL-STD-1689A, Section 12.3 Alignment and Fairness. Submit a CFR.

- Ensure that all misalignments and deviations meet requirements and do not exceed tolerance limits as specified in MIL-STD-1689A, Section 12.3 Alignment and Fairness

- Realign structures and fair plates until pass the test

3.6 NDE. In presence of Coast Guard Inspector, the Contractor must perform NDE of the newly welded substrates (bulkhead/deck plates) and coamings in accordance with SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.7 Boundary test. In presence of Coast Guard Inspector, the Contractor must accomplish a chalk test and water hose test, in accordance with SFLC Std Spec 0740. Submit a CFR.

3.8 Insulation. As designated by the COR, the Contractor must renew all removed or damaged insulation in accordance with Coast Guard Drawings 750-WMSL-635-002 and 750-WMSL-635-503, NAVSEA Drawings 803-5184182 and 804-5773931, and MIL-DTL-32585A.

3.9 Sensors. The Contractor must restore sensors and mounts removed.

3.10 Preservation. The Contractor must prepare, prime, and paint surfaces as follows :

3.10.1 Closures and coamings. The Contractor must prepare and preserve both sides of the new closure assemblies, including all disturbed surfaces, to match existing adjacent area by using the same coating and matching deck covering systems in accordance with SFLC Std Spec 6310.

CAUTION!

Do not paint knife-edges, gaskets, or any moving parts; including dogs, nuts, wedges, spindles, yokes, packing, connecting rods and hinge pins.

3.10.2 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).

3.11 Marking. The Contractor must mark the new fittings (either stencils or label plates, as applicable) with the same identification used on the old fittings, if existing.

3.12 Operational test-post repair. After completion of work and in the presence of the Coast Guard Inspector, the Contractor must witness an operational test (by Coast Guard personnel) of the equipment listed below to demonstrate satisfactory operational condition. Submit a CFR.

- Sensors

3.12.1 Addition. In addition, the Contractor must ensure the following:

- Closures are properly secured, so as to prevent accidental or unintentional movement.
- Securing latches adequately engage closures and positively lock into place without excessive force or manipulation by the operator.
- Ensure lock and secure mechanism work properly.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.13 Nameplates and labels. The Contractor must provide, install, and restore new nameplates and labels on and around the newly installed closures. (including Engraved Metal DC Nameplates)

4. NOTES

4.1 Damage control markings. Coast Guard personnel will apply appropriate damage control decals onto all newly installed closure(s).

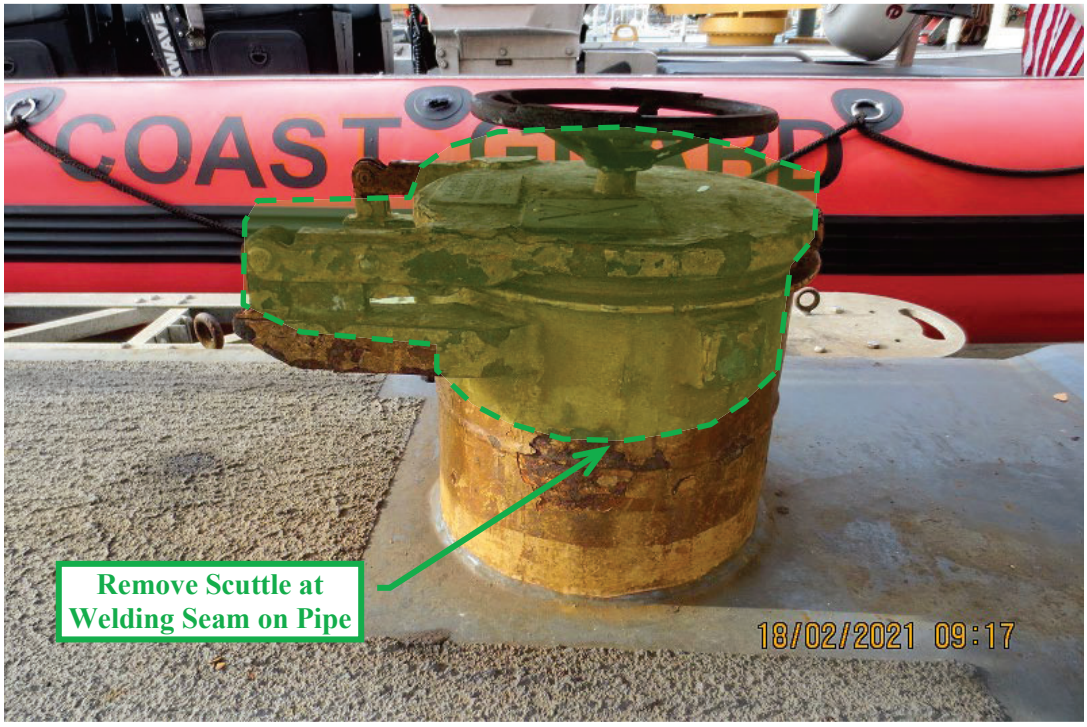

FIGURE 1 SAMPLE RQAWTS12D 1-93-1 (NSC3)
(NAVSEA DRAWING 803-1623053, REV. -)

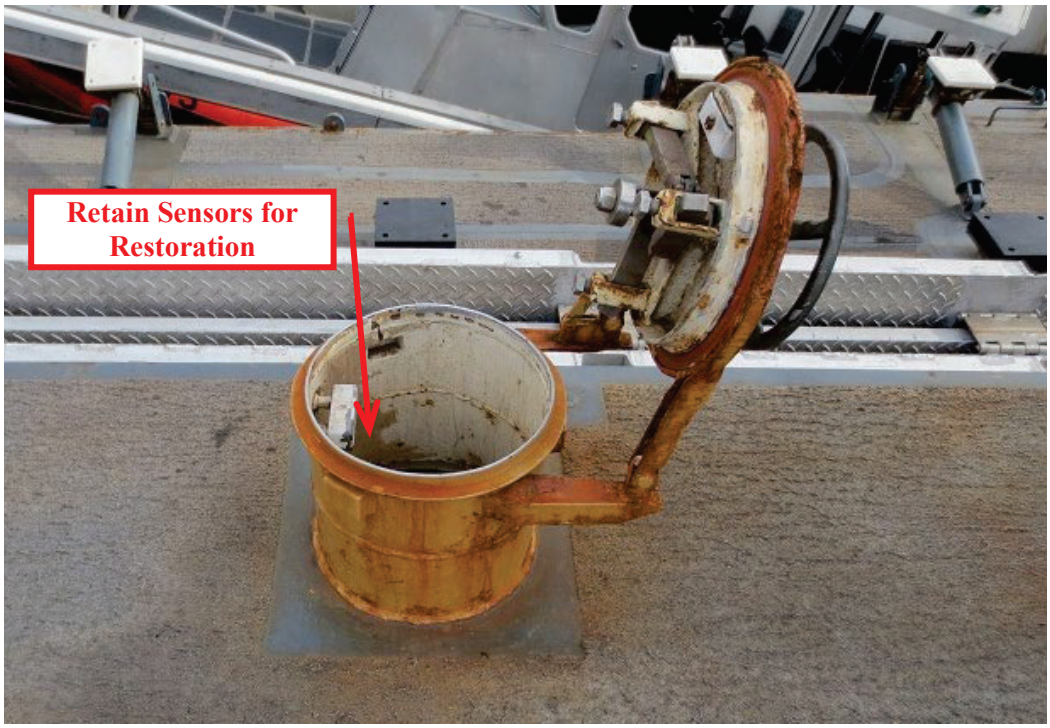

FIGURE 2 SAMPLE RQAWTS12D 1-93-2 (NSC3)
(NAVSEA DRAWING 803-1623053, REV. -)

WORK ITEM 6: Galley Roller Door, Repair

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to perform repairs on Galley Roller Door.

1.2 Government-furnished property.

None

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_6, Rev A, Inboard and Outboard Profiles
Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans
Coast Guard Drawing 750-WMSL_100_84, Rev -, Topside Configuration for NSC 6 & Follow

COAST GUARD PUBLICATIONS

None

OTHER REFERENCES

None

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:

- Galley in operation
- Roller door, USCG Does not know the Make/Model of the Roller Door.

3.1.5 Work Location. GALLEY 1-57-2-Q.

3.1.6 Work Coordination. The Contractor must coordinate work in galley area to avoid disruptions with Galley operation.

3.1.7 Work plan. The Contractor must provide a work plan for the Galley Door Roller Repair to the COR at the Arrival Conference. The Contractor must provide one (1) week written notice to the COR prior to the start of this work item.

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 the Galley Roller Door to demonstrate existing operational condition. Submit a CFR.

3.3 Renew Barrel. The Contractor must renew faulty barrel on the Galley Roller door which prevents safe operation and actuation of the door.

3.4 Operational test, post repairs. After completion of work and in the presence of the Coast Guard Inspector, the Contractor must thoroughly test and demonstrate the Galley Roller Door to be in satisfactory operating condition. Submit a CFR.

4. NOTES

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WORK ITEM 7: Deck Covering (Polymeric), Repair and Seal

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to repair and reseal existing deck covering in compartments as specified in Table 1.

TABLE 1 DECK COVERING (POLYMERIC) IN COMPARTMENTS

LOCATION	TOTAL COMPARTMENT SQ FT	SYSTEM/APPENDIX (SFLC STD 6341)	SYSTEM COLOR	NOTE
02-33-1-L PLTHS ACCESS	61	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck
02-36-1-L AIR LOCK	29	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck
02-37-1-L PASSAGEWAY	72	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck
1-16-01-L PASSAGEWAY	207	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck
1-22-01-L PASSAGEWAY	195	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck
1-23-1-L PASSAGEWAY	170	Polymeric Epoxy Resin, Type I, Class 2/Appx A	Dark Gray SS5002 with White 600 (20%)/ Blue 604 (40%) Chips	Renew 5% Reseal Entire Deck

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 418A-WMSL_801_1, REV B, Booklet of general plans

Coast Guard Drawing 750-WMSL_85_25, Rev -, Compartment Areas & Volumes NSC 3 & follow (AS3085012)

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, Nonionic)

MIL-PRF-24613, Dec 1990, Deck Covering Materials, Interior, Cosmetic Polymeric

MIL-PRF-24667C, May 2008, Coating System, Non-Skid, for Roll, Spray, or Self-Adhering Application

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 protect non-affected vessel's equipment, components, and spaces during surface preparation and coating application procedures, as specified in SFLC Std Spec 0000, paragraph 3.3.3 (Vessel component, space, and equipment protection), and abide by all applicable environmental protection tasks, as specified in SFLC Std Spec 0000, Appendix B (Requirements for Environmental Protection). Upon completion of work, remove and dispose of all installed protective measures, inspect for the presence of contamination, and return all contaminated equipment, components, and spaces to original condition of cleanliness.

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

the below listed :

- Outfits, foundations, and fittings
- Desks
- Closets and racks

3.1.5 Work locations. The concerned work areas are listed in Table 1. See the Coast Guard Drawings in section 2 above for guidance, locations, and details.

3.1.6 Materials. The Contractor must provide any new components, parts, materials, and paints with the same color, comparable and matching material properties as the existing components/parts. Use references in section 1, 2 and SFLC Std Specs 6310 and 6341 for guidance, required materials, and details.

3.1.7 Work plan. The Contractor must provide a work plan for sealing Deck Covering System listed in the Table 1 to COR 72 hours prior to the start of this work item.

3.1.8 Notification. The Contractor must give written notification to COR 48 hours before starting work on this work item.

3.1.9 Contractor walk thru. In the presence of the Coast Guard inspector, and prior to start of work the Contractor must perform a walk thru of all compartments listed on Table 1. Identify and document location of anti-slip pads and initial deck condition, including areas that require renewal. Note any potential issues that may impact work plan, document any compartment requiring repairs. Submit CFR.

3.2 Repair particulars. The Contractor must perform all tasks specified in SFLC Std Spec 6341 and follow manufacturer's installation instruction, to repair deck covering system in the location(s) specified in Table 1. For estimating purposes the Contractor must estimate up 5% of surface area will require repairs due to damage to coating system.

3.2.1 Removal. The Contractor must remove all loose underlayment around the damaged area(s). Feather the damaged underlayment and surrounding top deck covering layers outward about 3 inches. Dispose of all waste materials in accordance with all local, state, and federal laws and regulations.

3.2.2 Cleaning. The Contractor must clean the exposed surfaces of underlayment material and deck covering base color layers with Xylene cleaning agent and then let them dry. Surfaces must be completely free of erosion products, mill scale, dirt, oil, grease, moisture, deteriorated paint, and other surface contaminants.

3.2.3 Bonding. The Contractor must apply the bonding coat (that comes with the underlayment kit) on the exposed surfaces of underlayment and feathered deck covering layers. Allow the bonding coat to dry for one (1) day in accordance with manufacturers' installation instruction/guideline in section 2.

3.2.4 Underlayment. The Contractor must fill in underlayment around the damaged areas up to deck covering layer. Sand all exposed underlayment to provide a smooth surface free of irregularities.

3.2.5 Polymeric deck covering. The Contractor must apply Cosmetic Polymeric Epoxy Resin System (MIL-PRF-24613 Type I, Class 2, (Epoxy, with Color Flake Topping)) to match existing adjacent surfaces over exposed underlayment material and feathered deck coving in accordance with SFLC Std Spec 6341, Appendix A and manufacturers' installation instruction/guideline in section 2 above. Scatter

color flakes between sealer layers for blending new and existing deck covering pattern where appropriate during sealing process.

3.2.6 Sealing. The Contractor must thoroughly seal the deck covering system with a minimum of two coats of a suitable sealer, in accordance with the deck covering system manufacturer's recommendations. Refer to paragraph 4.1 "Sealer particulars".

3.2.7 Caulking. The Contractor must renew all existing caulking and grout at stainless steel joints.

3.2.8 Slip-resistance. The Contractor must add an aggregate (e.g. white aluminum oxide or glass beads) to the final seal coat. Refer to deck covering system manufacturer's recommendation.

3.2.9 Curing. The Contractor must allow sealer to cure for the manufacturer recommended times.

WARNING

Keep traffic off deck until sealer is cured. The sealing process is complete when the deck has a uniform appearance; i.e., when the surface film is continuous and free of blotchy areas.

3.3 Slip-resistant treads/mat. The Contractor must renew all removed slip-resistant treads/mat on deck (as specified in Table 1) at both sides of watertight doors, and head and foot of ladders in accordance with SFLC Std Spec 6341 and MIL-PRF-24667C, Type XI. (For estimating purposes use 3 sets of slip-resistant material for each location listed on Table 1)

3.4 Touch-up preservation, general. The Contractor must prepare and coat all new and disturbed exterior and interior surfaces, as applicable, 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 Sealer particulars. Sealer for designated deck covering system(s) may be procured from the deck covering system's manufacturer.

- Authorized suppliers for cosmetic polymeric deck covering systems are listed on the Qualified Product Listing (QPL) 24613 for MIL-PRF-24613

WORK ITEM 8: Deck Covering (Slip-Resistant), Renew

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew deck covering with slip-resistant deck covering system (MIL-PRF-24667 Type V Comp. G/D/L Non-skid) for areas as listed in Table 1.

TABLE 1 SLIP-RESISTANT DECK COVERING

LOCATION	COMPO	AREA (SQFT)*	SYSTEM/APPENDIX (SFLC STD 6310)	TOPCOAT COLOR	PRESERVE LEVEL	NOTE
CIWS Deck incl Launcher Decks Top of Fan Rooms	Decks, Tops	2,205	Weather Decks (Weather Deck Non-Skid, MIL-SPEC Coating for Steel)	Dark Gray 36076 Match existing adjacent surfaces	Renew	MIL-PRF-24667D Type V Comp. G/D/L Non-skid
Amidships 01 Deck (Boat & FAS Decks)	Decks, Amidships Passage	900	Weather Decks (Weather Deck Non-Skid, MIL-SPEC Coating for Steel)	Dark Gray 36076 Match existing adjacent surfaces	Renew	MIL-PRF-24667D Type V Comp. G/D/L Non-skid

***Approximated**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL-100-001, Rev B, General Arrangements
Coast Guard Drawing 418A-WMSL-100-006, Rev A, Inboard and Outboard Profiles
Coast Guard Drawing 750-WMSL 100-050, Rev J, Unit 4230 Structure - Mast (ASC100423)
Coast Guard Drawing 750-WMSL 100-083, Rev -, General Arrangements NSC 5 & Follow (AS5100001)
Coast Guard Drawing 750-WMSL 100-084, Rev -, Topside Configuration for NSC 6 & Follow
Coast Guard Drawing 750-WMSL 588-001, Rev -, Aviation Facilities General Arrangements (ASC588001)
Coast Guard Drawing 750-WMSL 713-002, Rev -, CIWS Magazine Arrangement & Installation (ASC713002)
Coast Guard Drawing 750-WMSL 801-011, Rev -, Booklet of General Plans (NSC 6 Only) (ASC801001F)
Coast Guard Drawing 750-WMSL-085-025, Rev -, Compartment Areas & Volumes NSC 3 & Follow (AS3085012)

Coast Guard Drawing 750-WMSL-100-012, Rev K, Unit 1120 Structure - Main Deck to 01 Level - Bow to Fr 10 (ASC100112)

Coast Guard Drawing 750-WMSL-100-016, Rev J, Unit 1240 Structure - Main Deck to 01 Level - Fr 9 to Fr 22 (ASC100124)

Coast Guard Drawing 750-WMSL-100-020, Rev K, Unit 1340 Structure - Main Deck to 01 Level - Fr 22 to Fr 35 (ASC100134)

Coast Guard Drawing 750-WMSL-100-030, Rev M, Unit 2240 Structure - Main Dk to 01 Lvl - Fr 44 to Fr 52 (ASC100224)

Coast Guard Drawing 750-WMSL-100-049, Rev L, Unit 4220 Structure - 02 Lvl and Above - Fr 33 to Fr 44 (ASC100422)

Naval Air Warfare Center (NAVAIR) Drawing 627927, Rev A, Visual Landing Aids Installation and Clearance Requirements

NAVSEA Drawing 803-1385828, Rev P, Nozzles AFFF and Washdown Systems

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 6310 (SFLC Std Spec 6310), 2022, Requirements for Preservation of Ship Structures

OTHER REFERENCES

American Society for Nondestructive Testing (ASNT), Recommended Practice No. SNT-TC-1A, 2020, Personnel Qualification and Certification in Nondestructive Testing

American Society for Nondestructive Testing (ASNT), Standard No. ANSI/ASNT CP-189-2020, 2020, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

ASTM Internationals (ASTM) G46, 2018, Standard Guide for Examination and Evaluation of Pitting Corrosion

MIL-PRF-24176C, 2020, Cement, Epoxy, Metal Repair and Hull Smoothing

MIL-PRF-24667D, 2021, Coating System, Non-Skid, for Roll, Spray, or Self-Adhering Application

MIL-STD-1689A, 1990, Fabrication, Welding, and Inspection of Ships Structure

Naval Sea Systems Command (NAVSEA) 0640-LP-119-0175, 2019, NAVSEA OP 4 Rev 12, Ammunition and Explosives Safety Afloat

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Bare Metal Power Tool Cleaning

The Society for Protective Coatings (SSPC)/NACE International (NACE) Joint Surface Preparation Standard SSPC-SP 10 (WAB)/NACE WAB-2, 2015, Near-White Metal Wet Abrasive Blast Cleaning

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraph(s) :

- 3.3 Operational test – initial
- 3.4 Inspection

3.1.2 Tech Rep. The Contractor must provide the services of Tech Reps and personnel as follows :

- NDE Tech Rep : NDE Operator/Level 1
- Preservation Tech Rep : AMPP Senior Certified Coatings Inspector (NACE CIP Level 3/SSPC PCI Level 3) with Marine Coatings Inspection Specialty

3.1.2.1 NDE Tech Rep. The Contractor must provide the services of a qualified and certified NDE Operator/Level 1 as follows:

- Perform NDE Operations.

3.1.2.1.1 Qualifications/certifications. NDE Operator/Level 1 certified and qualified in accordance with ASNT No. SNT-TC-1A. Submit the Tech Rep's qualifications/certifications to the COR at the Arrival Conference.

3.1.2.1.2 Dates of services. Include the dates of services in which Tech Reps must be on site as per their subcontract documentation.

3.1.2.2 Preservation Tech Rep. The Contractor must provide the services of a Certified Coating Inspector having successfully completed relevant AMPP (NACE/SSPC) Programs and Trainings to:

- Serve as an Independent Coating Tech Rep.
- Accomplish applicable requirements in SFLC Std Spec 0000, Paragraph 3.2.4.2.2 (Coating Tech Rep).
- Oversee the Preservation Plan requirements in SFLC Std Spec 6310, Paragraph 3.2 (Preservation plan).
- Review and sign daily reports summarizing work. See forms QA-1 thru QA-5 provided in the General Requirements.
- Submit reports to the COR within 24 hours of each inspection.

3.1.2.2.1 Qualifications/certifications. Submit the Coating Tech Rep's qualifications/certifications in accordance with SFLC Std Spec 0000, 3.2.4.2.2.3 and 3.2.4.2.4, include name, certificate number and documented completion of relevant AMPP (NACE/SSPC) Courses and Exams.

3.1.2.2.2 Submit the name and the certification of the Tech Rep to the COR at the Arrival Conference. Include the dates of services the Qualified Tech Reps will be on site as per their subcontract documentation.

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).

3.1.3.1 Specific protections. Specific areas/equipment/components to be protected include, but are not limited to:

- Weapons, controls, and components (e.g. guns, ESM systems, and controls)
- Machinery, equipment, and components (e.g. anchors, winches, capstans)
- Ventilation systems, and components (e.g. ventilation inlets/outlets, and trunks)
- Bench marks
- Ammo racks and foundations
- Ready service lockers
- Flag storage boxes.
- Wash down counter measure fittings
- Drains, covers, and plugs

3.1.3.2 Inspection of integrity. Inspect the integrity of the protective covering at the beginning of each shift where surface preparation and/or painting will be accomplished. Ensure that equipment and machinery have not been infiltrated by contamination. Clean any contamination and repair any defects in the protective covering prior to continuing work.

3.1.3.3 Watertight closures. Close all weather tight closures in the vicinity of the work area or install double curtain baffles at the entrance of each access door where airborne contamination could occur during surface preparation and painting. Double curtain baffles are necessary at all closures that will be in use during the preservation process. Install a dirt collection mat on the deck directly inside each closure.

3.1.3.4 Deck drains. Plug or cover all deck drains, weather deck supply and discharge to prevent entry of blast grit or debris.

3.1.3.5 Wash down counter measure (CMWD). Cover CMWD nozzles (i.e. NAVSEA Dwg 803-1385828) to prevent entry of blast grit or debris using the following:

- Fender Washer (i.e. Carbon Steel, SAE J403H (1008-1020), UNS G10080-G10200, Zinc Plated)
- Machine Screw (Stainless, Type 18-8, must comply with ANSI-B18.6.3 Slotted, Trusshead. Full form threads are to extend to within 0.050 inch of the head bearing surface).

NOTE

The CMWD nozzle coverings are Parts 4 and 5 in NAVSEA Drawing No 803-1385828.

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 :

- Small boats
- Weapons, controls, and components (e.g. guns, ESM systems, and controls)
- Machinery, equipment, and components (e.g. anchors, winches, capstans)
- Ventilation systems, and components (e.g. ventilation inlets/outlets, and trunks)
- Bench marks
- Ammo racks and foundations
- Ready service lockers
- Flag storage boxes

- Wash down counter measure fittings
- Drains, covers, and plugs
- Closures (e.g. doors, hatches and scuttles)
- Rails and supports
- Ladders and supports
- Outfits, foundations, and fittings (e.g. chocks, cleats, cat paws)
- Switches, controls, and terminals
- Lights, alarms, cameras, speakers, sensors, switches, and supports
- Piping, hoses, and supports
- Cables, wires, and supports

NOTE

Coast Guard personnel will coordinate to remove all pyrotechnics from ready service lockers prior to commencement of the works.

3.1.5 Work locations. The concerned work areas are listed in Table 1. See the applicable drawings in section 2 for guidance, locations, and details.

3.1.6 Materials, tools, and services. The Contractor must provide materials, tools, and services to accomplish the requirements in this work item. New components, parts, materials, and paints with the same color, comparable and matching material properties as the existing components/parts. Use references in Sections 1, 2 and SFLC Std Specs for guidance, required materials, and details.

3.1.7 Water used for washing and surface preparation procedures. The Contractor must ensure that water used in all washing and surface preparation tasks (including pre-surface preparation wash, and wet abrasive blasting) is in accordance with SSPC/NACE Standards regarding to WJs or WABs. The water used must be sufficient purity and quality, and must not prevent the surface being cleaned from achieving the required degree of surface cleanliness or non-visible contamination criteria.

- Ensure that surface preparation water does not contain sediments or other impurities that are destructive to the proper functioning of the cleaning equipment.
- Ensure that all water used in any surface preparation or cleaning procedures is captured, contained, and all spent water disposed of in accordance with all federal, state and local regulations.
- Notify the COR within 48 hours prior to the removal of accumulated water storage from the Coast Guard Base where work is being conducted.

3.1.8 Surface preparation optional methods. The Contractor has the option of using either “Wet Abrasive Blasting”, “Dry Abrasive Blasting” or “Water Jetting” to achieve the required surface preparation, prior to application of the coating system specified in preservation requirements.

- Achieving greater productivity
- Achieving the required surface profile

NOTES

WABs and DABs are requested and preferred respectively, while WJs are still listed and approved under SFLC Std Spec 6310. WJs are acceptable only when remaining surface profiles still meet standards and requirements. Any surface prep areas failed to meet standards and requirements must be corrected/implemented by DABs, WABs or equivalent.

3.1.9 Work plan. The Contractor must provide work plans for Deck Covering (Slip-Resistant) Renewal and Preservation listed in the Tables 1 and 2 to the COR at the Arrival Conference.

3.1.10 Work coordination. The Contractor must coordinate the accomplishment of this work item with the following work items :

- Tenting, Provide
- Side Boat Davit, Renew

3.2 Quality assurances and controls. 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"), and the quality controls specified in SFLC Std Spec 6310, Paragraph 3.1.10 (Coating inspection) and 3.1.15 (Coating system tests).

NOTICE

Surfaces being renewed/preserved are considered "critical-coated surfaces".

3.3 Operational test – initial. Prior to commencement of work, in the presence of a CG Inspector, the Contractor must witness Coast Guard personnel perform an initial operational test of the equipment listed below to demonstrate existing operational condition. Submit a CIR.

- Deck machinery and equipment
- Drain systems and pipings

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.4 Inspection. In the presence of the Coast Guard Inspector and as designated by the COR, the Contractor must inspect all cleaned surfaces and exposed substrates of areas in Table 1 (after removing/cleaning surface covering/coatings and prior to priming substrates) in accordance with SFLC Std Spec 0740. Submit a CIR.

3.4.1 Visual inspection (VT). The Contractor must visually inspect all exposed deck areas for any pitting, corrosion, erosion, defects, and damages.

3.4.1.1 Initial deck condition. Include the description of the initial deck condition as outlined below.

- Written, Visual or Pictorial Representation including measurements and locations of intended differentiating surface preparation levels and coating systems (i.e. stripe coating application (SFLC Std Spec 6310, 3.1.1 Stripe coat application)) over the original coating system using chalk or chalk based marking instrument

3.4.1.2 Sketching and marking. Prior to removal of any coatings, use photography, drawings and sketches

as needed to document markings and lettering on affected areas. After application of deck covering, the markings and lettering must be restored as indicated on paragraph 3.8 Deck weapon, safety, and other markings.

- Visual or Pictorial Representation including measurements and locations of slip-resistant exempt surfaces (a.k.a. exempted areas/waterways) and Deck weapon, safety, and other markings (paragraph 3.8 Deck weapon, safety, and other markings) of the original coating system.

3.4.2 Pit measurement. The Contractor must take 800 pit measurements using a Contractor supplied 'Pit Gauge' in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit.

NOTE

Pit measurements must be taken on cleaned/exposed substrates in accordance with SFLC Std Spec 0740 (in accordance with ASTM G46 via SFLC Std Spec 0740)

3.4.3 Ultrasonic test (UT). The Contractor must take 400 UT measurements for determining suspected cracks and remaining substrate thicknesses in accordance with SFLC Std Spec 0740, Appendix C. The results of these measurements and the locations where they were taken must be included in the inspection report.

- UT for cracks. Take UT measurements along suspected cracked substrates/discontinuities to determine their boundaries.
- UT for thickness measurement. Take UT shots in the surrounding area of any pit measuring greater than 25% of plate thickness. UT shots must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured.

3.5 Substrate filling and fairing by epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must fill small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), with epoxy to delay further corrosions, after removing insulation, surface covering, and/or coating in accordance with SFLC Std Spec 6310, Appendix A (Cutter and Boat Exterior Painting Systems), "Metal Repair and Hull Smoothing", MIL-PRF-24176, and manufacturers' instructions.

- Procure 8 kits of epoxy (e.g. Belzona 1111,-0.5 Gallon/5 Kg Kit or equivalent) to conduct repairs.
- Apply remaining epoxy over high corrosion and erosion areas. (e.g. substrates repaired by clad welding, corners, edges, sills, welding seams, and high contact surfaces)

3.6 Slip-resistant deck covering renewal. The Contractor must prepare and coat the deck surfaces, using the system specified in SFLC Std Spec 6310, Appendix A (Cutter and Boat Exterior Painting Systems). Apply finish/top coat to match existing adjacent surfaces. Select options as follows :

- Weather Decks (Weather Deck Non-Skid, MIL-SPEC Coating for Steel) (MIL-PRF-24667 Type V Comp. G/D/L)
- Near-White Metal Wet Abrasive Blast Cleaning SSPC-SP 10 (WAB)/NACE WAB-2, and
- Bare Metal Power Tool Cleaning (SSPC-SP 11) for all deck covering and coating defects,

outfits/fittings, and limited access areas

NOTES

1. Strength decks' substrates (e.g. Decks at Sides from Fore Deck through Flight Deck) are constructed of HY-AH-36 or HSLA-80 steel and may NOT be heated to remove the existing covering.

2. Initial removal of the coating system around deck edges, fittings, and deck coaming may be started by power tool cleaning in accordance with SSPC-SP-11.

3. Surface preparation may be accomplished by wet abrasive-blasting, or dry abrasive-blasting, or a combination of the two.

4. Unless a containment system is used to contain surface preparation for dust and debris and coating application overspray during pier side/dockside preservation, the following must be adhered to:

a. All surface preparation tools/equipment must be vacuum-shrouded.

b. Coatings must be applied by brushing or rolling.

5. During pier side surface preparation :

- Suitable means to contain generated dust, waste water, paint chips, spent abrasives, and overspray must be provided or employed, as applicable.

- Plywood or net/canvas barriers are typically used to surround the area being blasted to contain stray steel shot.

- When net barriers are used, the mesh size of the netting material must be small enough to ensure that the steel shot will be contained.

- In addition, net barriers, when used, must be overlapped where attached to stanchions, and anchored at the bottom for the entire net's length between stanchions, to limit the clean–up and localize the blast medium.

- Steel shot on a deck is a foreign object damage (FOD) hazard and extreme care must be taken to prevent slipping when walking over contaminated areas.

3.6.1 Pre-surface preparation wash. Prior to accomplishing surface preparation, the Contractor must accomplish low-pressure (less than 5,000 psi) fresh water wash of all affected surfaces, to remove soluble chlorides and other surface contaminants. Capture, contain, and dispose of wash water for proper disposal in accordance with all federal, state and local regulations.

3.6.2 Preparation. The Contractor must clean the entire deck areas including foundations, outfits, coaming, and fittings (e.g. wash down counter measure, deck edges, foundations, coamings, outfits, and fittings) up all coaming heights and up to 6 inches above decks in accordance with :

- Near-White Metal Wet Abrasive Blast Cleaning SSPC-SP 10 (WAB)/NACE WAB-2, and
- Bare Metal Power Tool Cleaning (SSPC-SP 11) for deck covering or coating defects, and limited access areas (including deck edges, foundations, coamings, outfits, and fittings)

3.6.3 Coating. The Contractor must coat slip-resistant deck covering (MIL-PRF-24667C, Type V Comp G/D/L) on deck. The coating system will be completed as follows :

- Primer Coats
- Stripe Coat Geometries, Welds, and Seams – Stripe coat must be of a different color than the Primer Coats
- Intermediate Coats
- Non-Skid
- Top Coat (Areas adjacent to Non-Skid)

3.6.3.1 Slip-resistant surfaces. Select Dark Gray 36076 as the top/finish coat color. Must not top-coat slip-resistant surfaces, except to restore helo deck markings. Ensure that the slip-resistant surface appearance and texture show a pattern of ridges and peaks as follows :

- The ridge profile must be continuous and reasonably uniform.
- Peaks and ridges must be generally in the same direction (fore and aft), approximately 1/2 to 1 inch apart, and approximately 1/16 to 3/32 inches high.
- All weld seams must be cross-rolled from a minimum of 3 inches on either side of the weld.

3.6.3.2 Slip-resistant exempted surfaces. Apply Dark Gray 36076 or top/finish coats matching adjacent surfaces instead of slip-resistant deck covering on exempted surfaces (no slip-resistant deck covering) over vertical surfaces and areas as follows :

- Areas within six inches of adjacent bulkheads, deck coaming, and deck edges.
- Areas within two inches of deck foundations, deck fittings, welds, and protrusions. (two inches measured from outermost portion of foundation, for example, foundation brackets on anchor windlass)
- Decks inside coamings
- Deck fittings, including, but not limited to: pad eyes, label plates, net supports/foundations (e.g. drain heads/cups, helicopter tie-down fittings)
- Deck troughs (e.g. stuffing tubes, risers, and flanges)
- Exempted surfaces or stripes as designated by the COR.

3.6.3.3 Other adjacent surfaces. Preserve all bulkheads, foundations, outfits, coaming, and fittings including all adjacent structural members up all coaming heights and up to 6 inches above deck. Include specific surface areas as follows :

- CIWS deck : top of fan rooms
- Any coating damages due to the Contractor’s works

3.7 Deck weapon, safety, and other markings. The Contractor must paint all deck weapon, safety, and other markings to restore them to original conditions in accordance with SFLC Std Spec 6310, COMDTINST M10360.3 (Series), Chapter 5 Cutter and Boat Safety Colors and Markings, and NAVSEA OP 4, Rev 10, Ammunition And Explosives Safety Afloat. Deck markings include, but are not limited to :

3.7.1 Danger stand clear of launcher deck area. For launcher areas, a "DANGER STAND CLEAR OF LAUNCHER DECK AREA" sign must be conspicuously located on each side of the launcher deck. These signs must be stenciled in 2-inch white letters centered on a red, rectangular background. The red background height and width will be determined by the particular ship’s available deck area.

3.7.2 Danger circles. Establish a danger circle around power-driven systems, such as gun mounts, turrets, gun/missile directors and missile launchers. The circles must meet the following requirements :

- The danger area must be encircled by a painted red line, 4 inches wide. The inside of the red line must be approximately 18 inches from the maximum rotating projection of the armament.
- The danger area must be labeled by painting the words “DANGER AREA” in 2-inch high white letters, centered within the 4-inch wide red circle line described in subparagraph a. The words “DANGER AREA” must be repeated around the circle every 4 feet.
- All ship’s structures that come in contact with the 4-inch wide red line and vertical extension of the line to a height of 7 feet must be labeled with the words “DANGER AREA” by painting 2-inch high red letters, centered on the area, and its extremities at a height of 5 feet from the deck. The danger circle markings must be extended to adjacent horizontal or near-horizontal surface where personnel could potentially stand or sit. It is not required to connect the arc across vertical surfaces to form a continuous connected circle.
- If the danger circle falls inside of or on a gun tub enclosure, the outside of the enclosures must be labeled by painting a 4-inch wide danger circle with 2-inch high letters spelling “DANGER CIRCLE” centered in the circle line. The top of the danger circle must be in line with the upper edge of the gun tub and must be painted as described in subparagraphs b and c.

3.8 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).

3.9 Operational test-post repair. After completion of work, the Contractor must witness Coast Guard personnel test all items or shipboard devices that have been disturbed, used, repaired, altered, or installed to demonstrate satisfactory condition. Submit a CFR.

- Deck machinery and equipment
- Drain systems and pipings

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.10 Washing. Upon completion of works and in presence of the Coast Guard Inspector, the Contractor must remove and dispose of all debris from surfaces, remove drain plugs, and clean out all deck and drains with low-pressure water, then demonstrate that all drains run free and clear.

4. NOTES

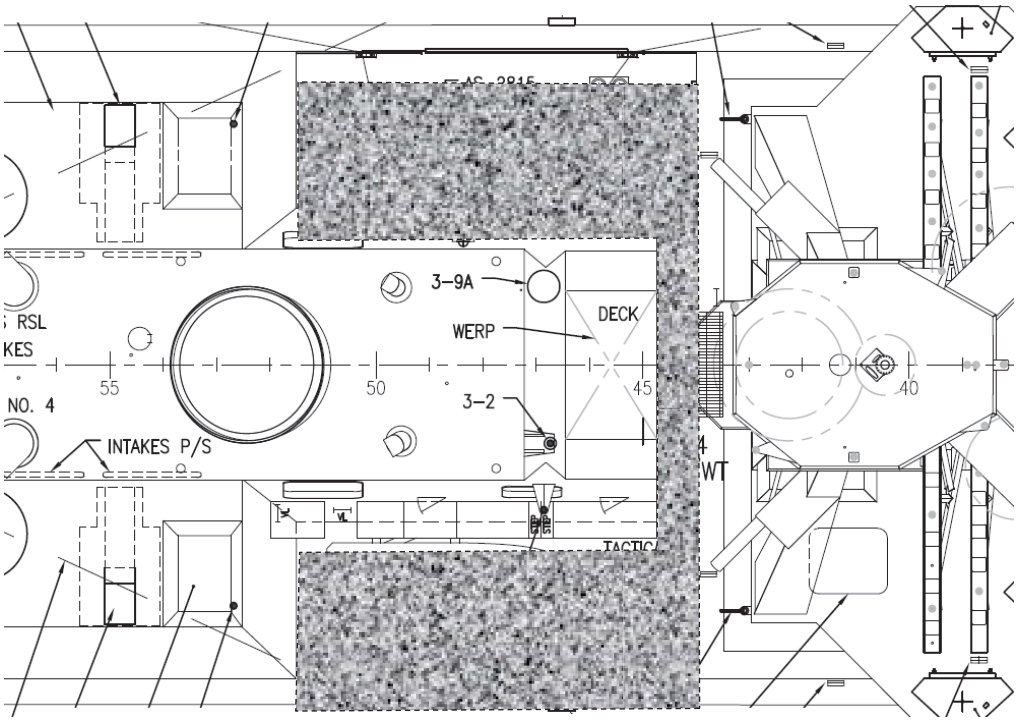

FIGURE 1 AMIDSHIPS 01 DECK

FIGURE 2 SAMPLE CIWS DECK INCLUDING TOP OF FAN ROOMS (NSC1)
(COAST GUARD DRAWING 750-WMSL-100-053)

WORK ITEM 9: Tenting, Provide

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to provide suitable working condition and protect environment from project materials and processes in work requiring tenting, including but not limited to compartments or areas listed below and in Table 1.

- WORK ITEM : Deck Covering (Slip-Resistant), Renew
- WORK ITEM : Side Boat Davit, Renew

TABLE 1 TENTING FOR EXTERIOR DECKS

TENTING	LOCATIONS
Amidships 01 Deck (Boat & FAS Decks incl. Passage)	01 Level Deck, Fr. 44 to 52
CIWS Deck and Top of Fan Rooms	03 Level Deck, Fr. 52 to 67

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 418A-WMSL_100_6, Rev A, Inboard and Outboard Profiles

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_85_25, Rev -, Compartment Areas & Volumes NSC 3 & Follow (AS3085012)

Coast Guard Drawing 750-WMSL_100_84, Rev -, Topside Configuration for NSC 6 & Follow

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

OTHER REFERENCES

Code of Federal Regulations (CFR) Title 29, Part 1910, 2017, Occupational Safety and Health Standards

Code of Federal Regulations (CFR) Title 29, Part 1915, 2013, Occupational Safety and Health Standards for Shipyard Employment

Code of Federal Regulations (CFR) Title 40, 2013, Protection of the Environment

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Bare Metal Power Tool Cleaning

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraph(s) :

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).

NOTE
All shipboard outfits and fitting (e.g. flight deck nets) are not allowed using to prevent damage.

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 Work locations. The concerned work areas are listed in Table 1. See the applicable drawings in Section 2 References for guidance, locations, and details.

3.1.6 Materials, tools, and services. The Contractor must provide service, tools, and materials to accomplish the requirements in this work item. New components, parts, materials, and paints with the same color, comparable and matching material properties as the existing components/parts. Use references in Sections 1, 2 and SFLC Std Specs for guidance, required materials, and details.

3.2 Environmental protection. The Contractor must abide by all requirements for environmental protection specified in SFLC Std Spec 0000, Appendix A (Requirements for Environmental Protection at Contractor Operated (Non USCG) Facilities), and Appendix B (Requirements for Environmental Protection at USCG Facilities).

3.3 Scaffolding, safety, and protection. The Contractor must comply with all required and applicable safety and protection specified in SFLC Std Spec 0000, Paragraph 3.3.1 (Personnel safety and property protection - general), and all OSHA safety and health regulations, and any other applicable federal, state, and local laws, and regulations, for the protection of both personnel and property.

- Suitable Scaffolding and/or lifelines are required for working above five feet (29 CFR 1910 and 1915)

- Temporary lines or rails must be installed in place of all removed lifelines or life rails, and be retained until replacement tasks have been completed.
- Adequate illumination is required in walkways, work areas, and access to provide a safe work environment (29 CFR 1915.92(a)).
- Scaffolding must not contact with any Weapons, Controls, and Components.

3.4 Tenting. In presence of Coast Guard Inspector, the Contractor must tent the designated areas as listed in the Table 1 (prior to blasting and preservation operations) in accordance with SFLC Std Spec 6310, Paragraph 3.1.5 (Tenting and ambient condition control). Tenting features must be as follows :

- Tenting must be set up in a way that it will not interfere with the blasting, preservation, or machinery removal and reinstallation operations.
- Tenting must be constructed to prevent precipitation from affecting normal repair operations, and be able to withstand severe inclement weather conditions.
- Tenting must be outfitted with a re-sealable opening that will permit loading and unloading of equipment and supplies.
- Tenting must be used to protect the environment from possible contamination due to preservation work.
- Temporary tenting must be included to protect exterior surfaces from inclement weather, while undergoing preservation.
- Temporary enclosures may be rigged and left overnight as long as they do not block egress routes or ventilation.
- Tenting must not contact with any Weapons, Controls, and Components.

3.4.1 Inspection and repair. The Contractor must inspect and repair any damaged areas of tenting at the beginning and end of every workday.

3.4.2 Restoration. The Contractor must remove all tenting equipment and material, inspect for the presence of contamination, and return all contaminated equipment, components, and spaces to original condition of cleanliness at the completion of work.

3.5 Ambient condition control. The Contractor must control environmental conditions necessary for required works in accordance with SFLC Std Spec 6310, Paragraph 3.1.4 (Ambient condition parameters).

3.5.1 Control equipment. To maintain ambient conditions recommended by coating system manufacturers, and accomplish surface preparation and coating application, the Contractor must provide suitable ambient condition control equipment including, but not limited to :

- Lighting : Lights and light fixtures
- Temperature : HVAC systems (e.g. heaters, air-conditioners)
- Humidity : Humidifiers, or dehumidifiers
- Air circulation : Blowers, and ventilators

3.5.2 Control plan. The Contractor must submit an ambient condition control plan to the COR at the Arrival Conference prior to initiating ambient condition control process.

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

This section is not applicable to this work item.

WORK ITEM 10: Deck Covering (Carpet), Renew

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to renew the carpets in rooms/areas as listed in Table 1.

TABLE 1 – DECK COVERING (CARPET) IN COMPARTMENTS

LOCATION	DECK MTL	APPROX. AREA (SQFT)	SYSTEM/APPENDIX (SFLC STD 6341)	SYSTEM COLOR	COVE BASE	NOTE
01-28-2-L XO STATEROOM	Steel	146	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
01-34-1-L CO STATEROOM	Steel	182	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
1-18-2-L OFFICER STATEROOM	Steel	127	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-19-1-L OFFICER STATEROOM	Steel	144	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-22-0-L OFFICER STATEROOM	Steel	195	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-22-1-L OFFICER STATEROOM	Steel	151	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-22-6-L OFFICER STATEROOM	Steel	137	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-26-2-L OFFICER STATEROOM	Steel	162	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-29-2-L OFFICER STATEROOM	Steel	101	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment
HULL 1-29-4-L OFFICER STATEROOM	Steel	122	Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)	Sierra MC280	Yes	Renew existing underlayment

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_85_25, Rev -, Compartment Areas & Volumes NSC 3 & Follow (AS3085012)

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

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2013, Power Tool Cleaning to Bare Metal

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, (Vessel component, space, and equipment protection).

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

- Furniture (e.g. cabinets, desks, tables, benches, and chairs)
- Vent systems (e.g. trunks, ducts, and pipes)
- Slip-resistant deck covering treads
- Drains, covers, and plugs

- Closures (e.g. doors, hatches, and scuttles)
- Outfits, foundations, and fittings
- Switches, controls, and terminals
- Sensors and supports (e.g. TLIs)
- Piping and supports
- Cables and supports

3.2 Deck covering renewal (renew underlayment). The Contractor must perform all tasks specified in SFLC Std Spec 6341 and follow manufacturers' installation instructions, to renew the deck covering system in the locations listed in Table 1. See Coast Guard Drawing 418A-WMSL-100-001 for the general location of compartments listed in Table 1.

3.2.1 Removal. The Contractor must remove and dispose of all existing deck covering systems and underlayment materials from the specified work area(s) to expose the deck surfaces. Disposal must be in accordance with all local, state, and federal laws and regulations.

3.2.2 Visual inspection (VT). In the presence of a CG Inspector, the Contractor must visually inspect all deck areas and exposed substrates for any damages or defects in accordance with SFLC Std Spec 0740. Submit a CFR.

3.2.3 Cleaning. The Contractor must clean the surfaces of all decks including decks inside coamings and all adjacent structural members (e.g. foundations, supports, outfits, and coamings) in accordance with SSPC-SP 11. In the presence of a CG Inspector, the Contractor must verify surfaces are completely free of corrosion products, mill scale, dirt, oil, grease, moisture, deteriorated paint, and other surface contaminants.

3.2.3 Priming. The Contractor must prime the prepared surfaces with recommended or equivalent primer in manufacturers' installation instruction/guideline in section 2.

3.2.4 Underlayment. The Contractor must install Epoxy Underlayment (MIL-PRF-3135, Type I/II Class 2) on the primed surface in accordance with SFLC Std Spec 6341 and manufacturers' installation instructions/guidelines.

3.2.5 Carpet. The Contractor must install carpet (Single Level Loop Pile (42 Oz. Per Sq. Yd. Pile)) over new underlayment in accordance with SFLC Std Spec 6341, Appendix E and manufacturers' installation instructions/guidelines.

3.2.5.1 Contractor must verify color/design selection of new carpet with COR prior To installation.

3.3 Coving. The Contractor must install coving around entire perimeter of the areas in accordance with SFLC Std Spec 6341. Unless otherwise specified, apply caulking compound at other corners.

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

4. NOTES

This section is not applicable to this work item.

WORK ITEM 11: Tanks (Aviation Fuel Service), Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the following tank(s):

TABLE 1 – LIST OF TANKS

TYPE OF TANK	LOCATION	CAPACITY - 95% (GALLONS)	TANK CONTENT DISPOSAL (GALLONS)	*REQUIRED MEASUREMENT OF PITS/UT FAIRING COMPOUND KITS
JP-5 Service	3-68-6-J	1692	100	Pits - 25 UT - 100 Fairing Compound – 1/2
JP-5 Service	3-68-8-J	1552	100	Pits - 25 UT - 100 Fairing Compound – 1/2

*** For Bidding Purposes**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_100_37, Rev H, Unit 3120 Structure- 1st Platf to 2nd Dk – Fr 64 To Fr 76 (ASC100312)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

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. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.7 Inspection

3.1.2 Tech Rep. The contractor must provide the services of a certified Technical Representative, holding an ASNT Central Certification Program (ACCP) Level II certification or better, or SNT-TC-TA NDT Level II or better to accomplish the following on site:

- Accomplish the applicable requirements in SFLC Std Spec 0740 Appendix C, Nondestructive Examination (Ultrasonic Inspection).

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:

- TLIs
- Piping
- Residual tank contents/fluids

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.

3.2.1 Perform an initial operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.2.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.3 Tank opening. The Contractor must remove the tank manhole cover(s) and ventilate the confined spaces in accordance with SFLC Std Spec 0000, Paragraphs 3.3.1.1 and 3.3.1.2. The Contractor must provide fall protection to tank manhole cover when opened for ventilation/work. The Contractor must matchmark the manhole cover lid(s) to the flange prior to removal for proper reinstallation.

WARNING

Do not use the Fuel Service or Transfer systems to drain the water from the tank. Excessive fuel contamination will result.

3.4 Tank content and waste disposal. The Contractor must dispose of residual tank contents listed in Table 1 and any cleaning fluids in compliance with all applicable Federal, state, and local laws, ordinances and regulations. Notify the COR (in writing) at least 48 hours prior to removal of wastes and fluids. Document a complete chain of custody record of the removed tank contents and generated wastes, from the vessel to the point of final destination or delivery. Submit document to the COR upon completion of work.

3.5 Temporary plugs. The Contractor must plug all inlet and outlet piping in the tank to prevent contaminants from entering the tank or piping system for the entire duration of the tank cleaning and inspection. Use plugs with an attached lanyard, ring or other system that will ensure plugs are not lost in the pipe openings.

3.5.1 Plug log. The Contractor must keep a written record of all installed plugs. Keep a separate list for each tank. Maintain a plug accountability log posted immediately outside the tank to prevent any of the installed temporary plugs from being lost inside the tank or left behind inside at tank closure. The log must include the type and size of each plug, installation date, and removal date. Submit this log to the COR after completion of work item via a CFR.

3.5.2 The Contractor must ensure that all plugs are removed from each tank upon completion of work in the tank.

3.6 Tank cleaning. The Contractor must clean all designated tank interior surfaces free of all foreign materials, such as residual water, sediment, sludge, rust, or biological growth, taking care not to damage the coating system (if applicable).

3.6.1 The Contractor must accomplish all requirements of SFLC Std Spec 6310, 3.1.6.4 (Surface contaminant removal) to achieve the cleanliness requirements of SSPC-SP 1, including a low-pressure (maximum 5,000 psi) fresh water wash down of the surfaces.

3.6.2 Remove cleaning media and residues continuously from the tank during the washing process. Remove any residual wash media and wipe up residual moisture with clean lint-free cloths. Wipe the interior tank structure dry and free of all cleaning agents.

3.7 Inspection. The Contractor, in the presence of the CG Inspector, must inspect all tank interior surfaces, including, but not limited to bulkheads, floor and overhead plating, structural members, manhole cover surfaces, fasteners and gasket seating surfaces. Using the Tank and Void Assessment form in General Requirements section 4.2, submit a CIR including the following, as applicable:

- Tank structural condition
- Condition of tank coating, including dimensions, percentage, location, and type of coating failure
- Tank level indicator (TLI) and/or float switch condition
- Sounding tube and striker plate condition
- Vent pipe and check valve condition
- Manhole cover, flange distortion check, and flange stud welds

- Suction and discharge piping condition
- Ladder condition
- Fastener material and condition
- Zinc anode condition, if applicable (remaining percentage,)
- Pit measurements
- Ultrasonic thickness (UT) measurements

NOTE

Depending on the tank conditions, it may not be necessary to perform all the pit measurements and ultrasonic measurements indicated on Table 1.

3.7.1 Pit measurement. The Contractor must measure all pits within each tank/location listed in Table 1, in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit. For bidding purposes, use Table 1 for number of pit measurements per tank.

3.7.2 Ultrasonic thickness (UT) measurement. Ultrasonic thickness (UT) measurement. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. UT measurements must be conducted in accordance with SFLC Std Spec 0740, Appendix C, using Coast Guard Drawings listed in Section 2. The results of these measurements (original thickness, measured thickness, and any observed cracks) and the locations where they were taken must be included in the inspection report. For bidding purposes, use Table 1 for number of UT measurements per tank.

3.8 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing coating, in accordance with SFLC Std Spec 6310 and manufacturers' instructions.

- For bidding purposes, procure the number of epoxy fairing kit(s) (0.5 Gallon/5 Kg Kit) as shown in Table 1.
- Epoxy fairing compound must meet the requirements of SFLC Std Spec 6310 Appendix C (MIL-PRF-24176 Cement, Epoxy, Metal Repair & Hull Smoothing) and be compatible with fluid in the tank.
- Turn over all unused kits to the COR.

NOTE

"Substrate fairing and repair by filling Epoxy for shallow pits and corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.9 Tank closing. The Contractor must ensure that the tank(s) remain open for approximately 24 hours after completion of any authorized repair and preservation procedures. Notify the COR at least 48 hours prior to closing the tank(s). After satisfactory inspection by the Coast Guard Inspector and completion of

all authorized repairs, remove all installed temporary plugs and document removal via signature on the plug log by the Coast Guard Inspector and Contractor prior to tank closing. Close tank manhole cover(s) using new gasket material, nuts and grommets in accordance with Coast Guard Drawing 750-WMSL-167-001, in the presence of the Coast Guard Inspector. Chase threads on studs to ensure even installation of the access covers. Covers must be reinstalled in their proper orientation with the marks made during tank opening. Do not use power tools to secure the manhole covers. Submit a CFR with the completed plug log.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

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

3.10.1 Perform a post-work operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.10.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.11 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces, and all disturbed manhole cover external surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs). Do not paint any manhole cover fasteners.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 12: Tanks (MP Fuel Storage and Overflow), Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the following tank(s):

TABLE 1 – LIST OF TANKS

TYPE OF TANK	LOCATION	CAPACITY - 95% (GALLONS)	TANK CONTENT DISPOSAL (GALLONS)	PAINTED	*REQUIRED MEASUREMENT OF PITS/UT FAIRING COMPOUND KITS
Fuel Oil Storage	5-64-0-F	10,563	600	N	Pits - 75 UT - 300 Fairing Compound – 1
Fuel Oil Storage	5-76-1-F	4,902	300	N	Pits - 50 UT - 200 Fairing Compound – 1/2
Fuel Oil Storage	5-76-2-F	4,902	300	N	Pits - 50 UT - 200 Fairing Compound – 1/2

*** For Bidding Purposes**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_100_36, Rev N, Unit 3110 Structure 1st Platform and Below Frs 65-77 (ASC100311)

Coast Guard Drawing 750-WMSL_100_40, Rev M, Unit 3210 Structure – Inner Bot To 1st Platform – Fr 76 To Fr 88 (ASC100321)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

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. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.7 Inspection

3.1.2 Tech Rep. The contractor must provide the services of a certified Technical Representative, holding an ASNT Central Certification Program (ACCP) Level II certification or better, or SNT-TC-TA NDT Level II or better to accomplish the following on site:

- Accomplish the applicable requirements in SFLC Std Spec 0740 Appendix C, Nondestructive Examination (Ultrasonic Inspection).

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:

- TLIs
- Piping
- Residual tank contents/fluids

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.

3.2.1 Perform an initial operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.2.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.3 Tank opening. The Contractor must remove the tank manhole cover(s) and ventilate the confined spaces in accordance with SFLC Std Spec 0000, Paragraphs 3.3.1.1 and 3.3.1.2. The Contractor must provide fall protection to tank manhole cover when opened for ventilation/work. The Contractor must matchmark the manhole cover lid(s) to the flange prior to removal for proper reinstallation.

WARNING

Do not use the Fuel Service or Transfer systems to drain any water from the tank. Excessive fuel contamination will result.

3.4 Tank content and waste disposal. The Contractor must dispose of residual tank contents listed in Table 1 and any cleaning fluids in compliance with all applicable Federal, state, and local laws, ordinances and regulations. Notify the COR (in writing) at least 48 hours prior to removal of wastes and fluids. Document a complete chain of custody record of the removed tank contents and generated wastes, from the vessel to the point of final destination or delivery. Submit chain of custody record to the COR upon completion of work.

3.5 Temporary plugs. The Contractor must plug all inlet and outlet piping in the tank to prevent contaminants from entering the tank or piping system for the entire duration of the tank cleaning and inspection. Use plugs with an attached lanyard, ring or other system that will ensure plugs are not lost in the pipe openings.

3.5.1 Plug log. The Contractor must keep a written record of all installed plugs. Keep a separate list for each tank. Maintain a plug accountability log posted immediately outside the tank to prevent any of the installed temporary plugs from being lost inside the tank or left behind inside at tank closure. The log must include the type and size of each plug, installation date, and removal date. Submit this log to the COR after completion of work item via a CFR.

3.5.2 The Contractor must ensure that all plugs are removed from each tank upon completion of work in the tank.

3.6 Tank cleaning. The Contractor must clean all designated tank interior surfaces free of all foreign materials, such as residual fuel or water, sediment, sludge, rust, or biological growth, taking care not to damage the coating system (if applicable).

3.6.1 The Contractor must accomplish all requirements of SFLC Std Spec 6310, 3.1.6.4 (Surface contaminant removal) to achieve the cleanliness requirements of SSPC-SP 1, including a low-pressure (maximum 5,000 psi) fresh water wash down of the surfaces.

3.6.2 Remove cleaning media and residues continuously from the tank during the washing process. Remove any residual wash media and wipe up residual moisture with clean lint-free cloths. Wipe the interior tank structure dry and free of all cleaning agents.

3.7 Inspection. The Contractor, in the presence of the CG Inspector, must inspect all tank interior surfaces, including, but not limited to bulkheads, floor and overhead plating, structural members, manhole cover surfaces, fasteners and gasket seating surfaces. Using the Tank and Void Assessment form in General Requirements section 4.2, submit a CIR including the following, as applicable:

- Tank structural condition
- Condition of tank coating, including dimensions, percentage, location, and type of coating failure

- Tank level indicator (TLI) and/or float switch condition
- Sounding tube and striker plate condition
- Vent pipe and check valve condition
- Manhole cover, flange distortion check, and flange stud welds
- Suction and discharge piping condition
- Ladder condition
- Fastener material and condition
- Zinc anode condition, if applicable (remaining percentage,)
- Pit measurements
- Ultrasonic thickness (UT) measurements

NOTE

Depending on the tank conditions, it may not be necessary to perform all the pit measurements and ultrasonic measurements indicated on Table 1.

3.7.1 Pit measurement. The Contractor must measure all pits within each tank/location listed in Table 1, in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit. For bidding purposes, use Table 1 for number of pit measurements per tank.

3.7.2 Ultrasonic thickness (UT) measurement. Ultrasonic thickness (UT) measurement. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. UT measurements must be conducted in accordance with SFLC Std Spec 0740, Appendix C, using Coast Guard Drawings listed in Section 2. The results of these measurements (original thickness, measured thickness, and any observed cracks) and the locations where they were taken must be included in the inspection report. For bidding purposes, use Table 1 for number of UT measurements per tank.

3.8 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing coating, in accordance with SFLC Std Spec 6310 and manufacturers' instructions.

- For bidding purposes, procure the number of epoxy fairing kit(s) (0.5 Gallon/5 Kg Kit) as shown in Table 1.
- Epoxy fairing compound must meet the requirements of SFLC Std Spec 6310 Appendix C (MIL-PRF-24176 Cement, Epoxy, Metal Repair & Hull Smoothing) and be compatible with fluid in the tank.
- Turn over all unused kits to the COR.

NOTE

"Substrate fairing and repair by filling Epoxy for shallow pits and corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.9 Surface coating. For all non-painted tanks, the Contractor must apply a coat of system fluid to all tank interior surfaces, following final tank inspection and just prior to tank closing. If surface rust developed on the interior tank surfaces while the tank was open, the Contractor must wipe the surfaces clean to a condition free of surface rust prior to coating with system fluid.

NOTE

Minimizing the amount of time the tanks are left open will reduce the surface rust that accumulates on tank interior surfaces.

3.10 Tank closing. The Contractor must ensure that the tank(s) remain open for approximately 24 hours after completion of any authorized repair and preservation procedures. Notify the COR at least 48 hours prior to closing the tank(s). After satisfactory inspection by the Coast Guard Inspector and completion of all authorized repairs, remove all installed temporary plugs and document removal via signature on the plug log by the Coast Guard Inspector and Contractor prior to tank closing. Close tank manhole cover(s) using new gasket material, nuts and grommets in accordance with Coast Guard Drawing 750-WMSL-167-001, in the presence of the Coast Guard Inspector. Chase threads on studs to ensure even installation of the access covers. Covers must be reinstalled in their proper orientation with the marks made during tank opening. Do not use power tools to secure the manhole covers. Submit a CFR with the completed plug log.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

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

3.11.1 Perform a post-work operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.11.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.12 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces, and all disturbed manhole cover external surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs). Do not paint any manhole cover fasteners.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 13: Tanks (MP Fuel Service), Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the following tank(s):

TABLE 1 – LIST OF TANKS

TYPE OF TANK	LOCATION	CAPACITY - 95% (GALLONS)	TANK CONTENT DISPOSAL (GALLONS)	PAINTED	*REQUIRED MEASUREMENT OF PITS/UT FAIRING COMPOUND KITS
Fuel Oil Service	4-64-1-F	9,698	500	N	Pits - 50 UT - 200 Fairing Compound – 1
Fuel Oil Service	4-64-2-F	9,698	500	N	Pits - 50 UT - 200 Fairing Compound – 1
Fuel Oil Day Tank	1-80-1-F	829	50	N	Pits - 10 UT - 40 Fairing Compound – 1/2

*** For Bidding Purposes**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_801_1Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_100_36, Rev N, Unit 3110 Structure 1st Platform and Below Frs 65-77 (ASC100311)

Coast Guard Drawing 750-WMSL_100_43, Rev L, Unit 3240 – Main Deck To 01 Level – Fr 76 To Fr 82 (ASC100324)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

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. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

• 3.7 Inspection

3.1.2 Tech Rep. The contractor must provide the services of a certified Technical Representative, holding an ASNT Central Certification Program (ACCP) Level II certification or better, SNT-TC-TA NDT Level II or better to accomplish the following on site:

Accomplish the applicable requirements in SFLC Std Spec 0740 Appendix C, Nondestructive Examination (Ultrasonic Inspection).

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:

- TLIs
- Piping
- Residual tank contents/fluids

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.

3.2.1 Perform an initial operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.2.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.3 Tank opening. The Contractor must remove the tank manhole cover(s) and ventilate the confined spaces in accordance with SFLC Std Spec 0000, Paragraphs 3.3.1.1 and 3.3.1.2. The Contractor must

provide fall protection to cover tank manhole cover when opened for ventilation/work. The Contractor must matchmark the manhole cover lid(s) to the flange prior to removal for proper reinstallation.

WARNING

Do not use the Fuel Service or Transfer systems to drain the water from the tank. Excessive fuel contamination will result.

3.4 Tank content and waste disposal. The Contractor must dispose of residual tank contents listed in Table 1 and any cleaning fluids in compliance with all applicable Federal, state, and local laws, ordinances and regulations. Notify the COR (in writing) at least 48 hours prior to removal of wastes and fluids. Document a complete chain of custody record of the removed tank contents and generated wastes, from the vessel to the point of final destination or delivery. Submit chain of custody record to the COR upon completion of work.

3.5 Temporary plugs. The Contractor must plug all inlet and outlet piping in the tank to prevent contaminants from entering the tank or piping system for the entire duration of the tank cleaning and inspection. Use plugs with an attached lanyard, ring or other system that will ensure plugs are not lost in the pipe openings.

3.5.1 Plug log. The Contractor must keep a written record of all installed plugs. Keep a separate list for each tank. Maintain a plug accountability log posted immediately outside the tank to prevent any of the installed temporary plugs from being lost inside the tank or left behind inside at tank closure. The log must include the type and size of each plug, installation date, and removal date. Submit this log to the COR after completion of work item via a CFR.

3.5.2 The Contractor must ensure that all plugs are removed from each tank upon completion of work in the tank.

3.6 Tank cleaning. The Contractor must clean all designated tank interior surfaces free of all foreign materials, such as residual fuel or water, sediment, sludge, rust, or biological growth, taking care not to damage the coating system (if applicable).

3.6.1 The Contractor must accomplish all requirements of SFLC Std Spec 6310, 3.1.6.4 (Surface contaminant removal) to achieve the cleanliness requirements of SSPC-SP 1, including a low-pressure (maximum 5,000 psi) fresh water wash down of the surfaces.

3.6.2 Remove cleaning media and residues continuously from the tank during the washing process. Remove any residual wash media and wipe up residual moisture with clean lint-free cloths. Wipe the interior tank structure dry and free of all cleaning agents.

3.7 Inspection. The Contractor, in the presence of the CG Inspector, must inspect all tank interior surfaces, including, but not limited to bulkheads, floor and overhead plating, structural members, manhole cover surfaces, fasteners and gasket seating surfaces. Using the Tank and Void Assessment form in General Requirements section 4.2, submit a CIR including the following, as applicable:

- Tank structural condition
- Condition of tank coating, including dimensions, percentage, location, and type of coating failure
- Tank level indicator (TLI) and/or float switch condition
- Sounding tube and striker plate condition

- Vent pipe and check valve condition
- Manhole cover, flange distortion check, and flange stud welds
- Suction and discharge piping condition
- Ladder condition
- Fastener material and condition
- Zinc anode condition, if applicable (remaining percentage,)
- Pit measurements
- Ultrasonic thickness (UT) measurements

NOTE

Depending on the tank conditions, it may not be necessary to perform all the pit measurements and ultrasonic measurements indicated on Table 1.

3.7.1 Pit measurement. The Contractor must measure all pits within each tank/location listed in Table 1, in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit. For bidding purposes, use Table 1 for number of pit measurements per tank.

3.7.2 Ultrasonic thickness (UT) measurement. Ultrasonic thickness (UT) measurement. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. UT measurements must be conducted in accordance with SFLC Std Spec 0740, Appendix C, using Coast Guard Drawings listed in Section 2. The results of these measurements (original thickness, measured thickness, and any observed cracks) and the locations where they were taken must be included in the inspection report. For bidding purposes, use Table 1 for number of UT measurements per tank.

3.8 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing coating, in accordance with SFLC Std Spec 6310 and manufacturers' instructions.

- For bidding purposes, procure the number of epoxy fairing kit(s) (0.5 Gallon/5 Kg Kit) as shown in Table 1.
- Epoxy fairing compound must meet the requirements of SFLC Std Spec 6310 Appendix C (MIL-PRF-24176 Cement, Epoxy, Metal Repair & Hull Smoothing) and be compatible with fluid in the tank.
- Turn over all unused kits to the COR.

NOTE

"Substrate fairing and repair by filling Epoxy for shallow pits and corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.9 Manhole Preservation. The contractor must preserve these items for tanks 4-64-1-F and 4-64-2-F only. These manholes are recessed approximately 4" below the deck.

- Manhole Cover
- Manhole Flange
- Manhole Coaming from flange to the deck edge (approximately 4” high)

3.9.1 The manhole cover must be preserved in accordance with SFLC Std Spec 6310 Appendix B for Bilges, Cofferdams, and Forepeaks. This requires surface preparation to SP-10. Color to match adjacent deck surface.

3.9.1.1 All surfaces of the manhole cover must be preserved except where the cover is exposed to the inside of the fuel tank. Follow paragraph 3.10 for preservation of non-coated surfaces.

3.9.2 The manhole flange and coaming must be preserved in accordance with SFLC Std Spec 6310 Appendix B for Bilges, Cofferdams, and Forepeaks. SP-11 surface preparation is authorized in lieu of SP-10 for the manhole coaming and flange.

3.10 Surface coating. For all non-painted tanks, the Contractor must apply a coat of system fluid to all tank interior surfaces, following final tank inspection and just prior to tank closing. If surface rust developed on the interior tank surfaces while the tank was open, the Contractor must wipe the surfaces clean to a condition free of surface rust prior to coating with system fluid.

NOTE

Minimizing the amount of time the tanks are left open will reduce the surface rust that accumulates on tank interior surfaces.

3.11 Tank closing. The Contractor must ensure that the tank(s) remain open for approximately 24 hours after completion of any authorized repair and preservation procedures. Notify the COR at least 48 hours prior to closing the tank(s). After satisfactory inspection by the Coast Guard Inspector and completion of all authorized repairs, remove all installed temporary plugs and document removal via signature on the plug log by the Coast Guard Inspector and Contractor prior to tank closing. Close tank manhole cover(s) using new gasket material in accordance with Coast Guard Drawing 750-WMSL-167-001, in the presence of the Coast Guard Inspector. Chase threads on studs to ensure even installation of the access covers. Renew all nuts, washers, and grommets (including those that are missing) in accordance with Coast Guard Drawing 750-WMSL-167-001. Covers must be reinstalled in their proper orientation with the marks made during tank opening. Do not use power tools to secure the manhole covers. Submit a CFR with the completed plug log.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

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

3.12.1 Perform a post-work operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.12.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.13 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces, and all disturbed manhole cover external surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs). Do not paint any manhole cover fasteners.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 14: Grey Water Holding Tank(s) and Lift Stations, Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the following tank(s):

TABLE 1 – LIST OF TANKS

TYPE OF TANK	LOCATION	CAPACITY - 95% (GALLONS)	TANK CONTENT DISPOSAL (GALLONS)	*REQUIRED MEASUREMENT OF PITS/UT FAIRING COMPOUND KITS
Grey Water Holding	3-34-0-W	8446	1,300	Pits - 50 UT - 200 Fairing Compound – 1/2
Grey Water Holding	5-74-0-W	16,370	2,500	Pits -100 UT - 400 Fairing Compound – 1
Lift Station Tank No. 1	3-20-0-Q	382	60	Pits – 25 UT -100 Fairing Compound – 1/2
Lift Station Tank No. 2	5-36-1-W	230	35	Pits - 25 UT - 100 Fairing Compound – 1/2
Lift Station Tank No. 3	4-72-0-W	227	35	Pits - 25 UT - 100 Fairing Compound – 1/2

*** For Bidding Purposes**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_528_1, Rev A, Plumbing and Interior Deck Drain Diagram

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_100_21, Rev F, Unit 2100 Struct – Inner Bottom – Fr 35 to Fr 44 (ASC100210)

Coast Guard Drawing 750-WMSL_100_23, Rev J, Unit 2120 Structure – 1st Platf to 2nd Deck Fr 35 to Fr 44 (ASC100212)

Coast Guard Drawing 750-WMSL_100_36, Rev N, Unit 3110 Structure 1st Platform and Below Frs 65-77 (ASC100311)

Coast Guard Drawing 750-WMSL_100_37, Rev H, Unit 3120 Structure – 1st Platf to 2nd Dk- Fr 64 to Fr 76 (ASC100312)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

Coast Guard Drawing 750-WMSL_501_4, Rev D, Misc Independent Tanks Design and Details and L/M (ASC501004)

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. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.7 Inspection

3.1.2 Tech Rep. The contractor must provide the services of a certified Technical Representative, holding an ASNT Central Certification Program (ACCP) Level II certification or better, or SNT-TC-TA NDT Level II or better to accomplish the following on site:

- Accomplish the applicable requirements in SFLC Std Spec 0740 Appendix C, Nondestructive Examination (Ultrasonic Inspection).

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:

- Piping
- Residual tank contents/fluids
- Pumps
- A/C Condensate drain water

- TLI's

3.1.5 Service disruption. When grey water is disrupted due to Contractor repairs, the Contractor must refer to SFLC Standard Spec 0000 par 3.2.11 to provide required temporary facilities.

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.

3.2.1 Perform an initial operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.2.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.3 Tank opening. The Contractor must remove the tank manhole cover(s) and ventilate the confined spaces in accordance with SFLC Std Spec 0000, Paragraphs 3.3.1.1 and 3.3.1.2. The Contractor must provide fall protection to cover tank manhole cover when opened for ventilation/work. The Contractor must matchmark the manhole cover lid(s) to the flange prior to removal for proper reinstallation.

3.4 Tank content and waste disposal. The Contractor must dispose of residual tank contents and any cleaning fluids in compliance with all applicable Federal, state, and local laws, ordinances and regulations. Notify the COR (in writing) at least 48 hours prior to removal of wastes and fluids. Document a complete chain of custody record of the removed tank contents and generated wastes, from the vessel to the point of final destination or delivery. Submit chain of custody record to the COR upon completion of work.

3.5 Temporary plugs. The Contractor must plug all inlet and outlet piping in the tank to prevent contaminants from entering the tank or piping system for the entire duration of the tank cleaning and inspection. Use plugs with an attached lanyard, ring or other system that will ensure plugs are not lost in the pipe openings.

3.5.1 Plug log. The Contractor must keep a written record of all installed plugs. Keep a separate list for each tank. Maintain a plug accountability log posted immediately outside the tank to prevent any of the installed temporary plugs from being lost inside the tank or left behind inside at tank closure. The log must include the type and size of each plug, installation date, and removal date. Submit this log to the COR after completion of work item via a CFR.

3.5.2 The Contractor must prevent A/C condensation from entering the tanks for the duration of tank cleaning, inspecting, and preservation (if preservation is required). The Contractor must drain the A/C condensate from the plugged piping, in all tanks, daily to prevent plumbing drain back-ups.

3.5.3 The Contractor must ensure that all plugs are removed from each tank upon completion of work in the tank.

3.6 Tank cleaning. The Contractor must clean all designated tank interior surfaces free of all foreign materials, such as residual fluid contents, sediment, sludge, rust, or biological growth, taking care not to damage the coating system (if applicable).

3.6.1 The Contractor must accomplish all requirements of SFLC Std Spec 6310, 3.1.6.4 (Surface contaminant removal) to achieve the cleanliness requirements of SSPC-SP 1, including a low-pressure (maximum 5,000 psi) freshwater wash down of the surfaces.

3.6.2 Remove cleaning media and residues continuously from the tank during the washing process. Remove any residual wash media and wipe up residual moisture with clean lint-free cloths. Wipe the interior tank structure dry and free of all cleaning agents.

3.7 Inspection. The Contractor, in the presence of the CG Inspector, must inspect all tank interior surfaces, including, but not limited to bulkheads, floor and overhead plating, structural members, manhole cover surfaces, fasteners and gasket seating surfaces. Using the Tank and Void Assessment form in General Requirements section 4.2, submit a CIR including the following, as applicable:

- Tank structural condition
- Condition of tank coating, including dimensions, percentage, location, and type of coating failure
- Tank level indicator (TLI) and/or float switch condition
- Sounding tube and striker plate condition
- Vent pipe and check valve condition
- Manhole cover, flange distortion check, and flange stud welds
- Suction and discharge piping condition
- Ladder condition
- Fastener material and condition
- Zinc anode condition, if applicable (remaining percentage,)
- Pit measurements
- Ultrasonic thickness (UT) measurements

3.7.1 Pit measurement. The Contractor must measure pits within each tank/location listed in all tanks being cleaned, in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit. For bidding purposes, use the Tables in Section 1 for number of pit measurements per tank.

3.7.2 Ultrasonic thickness (UT) measurement. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. UT measurements must be conducted in accordance with SFLC Std Spec 0740, Appendix C, using Coast Guard Drawings listed in Section 2. The results of these measurements (original thickness, measured thickness, and any observed cracks) and the locations where they were taken must be included in the inspection report. For bidding purposes, use the Tables in Section 1 for number of UT measurements per tank.

3.8 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing coating, in accordance with SFLC Std Spec 6310 and manufacturers' instructions.

- For bidding purposes, procure the number of epoxy fairing kit(s) (0.5 Gallon/5 Kg Kit) as shown in Table 1.
- Epoxy fairing compound must meet the requirements of SFLC Std Spec 6310 Appendix C (MIL-PRF-24176 Cement, Epoxy, Metal Repair & Hull Smoothing) and be compatible with fluid in the tank.
- Turn over all unused kits to the COR.

NOTE

"Substrate fairing and repair by filling Epoxy for shallow pits and corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.9 Tank closing. The Contractor must ensure that the tank(s) remain open for approximately 24 hours after completion of any authorized repair and preservation procedures. Notify the COR at least 48 hours prior to closing the tank(s). After satisfactory inspection by the Coast Guard Inspector and completion of all authorized repairs, remove all installed temporary plugs and document removal via signature on the plug log by the Coast Guard Inspector and Contractor prior to tank closing. Close tank manhole cover(s) with new gasket material in accordance with Coast Guard Drawings 750-WMSL-167-001 and 750-WMSL-501-004, in the presence of the Coast Guard Inspector. Chase threads on studs to ensure even installation of the access covers. Renew all nuts, washers, and grommets (including those that are missing) in accordance with Coast Guard Drawings 750-WMSL-167-001 and 750-WMSL-501-004. Covers must be reinstalled in their proper orientation with the marks made in paragraph 3.4. Do not use power tools to secure the manhole covers. Submit a CFR with the completed plug log.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

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

3.10.1 Perform a post-work operational test of each tank TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.10.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.11 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces, and all manhole cover external surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs). Do not paint any manhole cover fasteners.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 15: Voids (Accessible), Clean and Inspect

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to clean and inspect the following voids(s):

TABLE 1 – LIST OF VOIDS

TYPE OF STRUCTURE	LOCATION	APPROXIMATE AREA (SQ FT)	*REQUIRED MEASUREMENT OF PITS/UT FAIRING COMPOUND KITS
Void	5-9-0-V	1,075	Pits - 50 UT - 200 Fairing Compound – 1/2
Void	5-10-0-V	7,334	Pits - 150 UT - 600 Fairing Compound – 1
Void	5-82-1-V	1,193	Pits - 50 UT - 200 Fairing Compound – 1/2
Void	5-82-2-V	1,193	Pits - 50 UT - 200 Fairing Compound – 1/2
Void	5-88-0-V	22,085	Pits - 200 UT - 800 Fairing Compound – 1

*** For Bidding Purposes**

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_801_1, Rev B, Booklet of General Plans

Coast Guard Drawing 750-WMSL_100_11, Rev J, Unit 1110 Structure – Inner Bottom, 1st Platf & 2nd Deck – Bow to Fr 10 (ASC100111)

Coast Guard Drawing 750-WMSL_100_12, Rev K, Unit 1120 Structure – Main Deck To 01 Level – Bow To Fr 10 (ASC100112)

Coast Guard Drawing 750-WMSL_100_13, Rev L, Unit 1210 Structure – Inner Bottom To 1st Platform – Fr 10 to Fr 22 (ASC100121)

Coast Guard Drawing 750-WMSL_100_18, Rev L, Unit 1320 Structure – 1st Platform To 2nd Deck-Fr- 22 To Fr 35 (ASC100132)

Coast Guard Drawing 750-WMSL_100_36, Rev N, Unit 3110 Structure 1st Platform and Below Frs 65-77 (ASC100311)

Coast Guard Drawing 750-WMSL_100_37, Rev H, Unit 3120 Structure – 1st Platf To 2nd Dk- Fr 64 To Fr 76 (ASC100312)

Coast Guard Drawing 750-WMSL-100-040, Rev M, Unit 3210 Structure – Inner Bot To 1st Platform – Fr 76 To Fr 88 (ASC100321)

Coast Guard Drawing 750-WMSL_100_44, Rev K, Unit 3320 Struct – Inner Bottom – 2nd Deck Fr 89-98 (ASC100332)

Coast Guard Drawing 750-WMSL_167_1, Rev J, Manhole List Installation and Fabrication Details Ship Wide (ASC167001)

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. The Contractor must submit a CIR for the inspections listed in the following paragraph(s):

- 3.7 Inspection

3.1.2 Tech Rep. The contractor must provide the services of a certified Technical Representative, holding an ASNT Central Certification Program (ACCP) Level II certification or better, or SNT-TC-TA NDT Level II or better to accomplish the following on site:

- Accomplish the applicable requirements in SFLC Std Spec 0740 Appendix C, Nondestructive Examination (Ultrasonic Inspection).

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:

- TLIs

- Piping

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.

3.2.1 Perform an initial operational test of each void TLIs (if applicable) to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.2.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.3 Void opening. The Contractor must remove the void manhole cover(s) (if applicable) and ventilate the confined spaces in accordance with SFLC Std Spec 0000, Paragraphs 3.3.1.1 and 3.3.1.2. The Contractor must provide fall protection to cover manhole cover when opened for ventilation/work. The Contractor must matchmark the manhole cover lid(s) to the flange prior to removal for proper reinstallation.

3.4 Waste disposal. The Contractor must dispose of any cleaning fluids in compliance with all applicable Federal, state, and local laws, ordinances and regulations. Notify the COR (in writing) at least 48 hours prior to removal of wastes and fluids. Document a complete chain of custody record of the removed void contents and generated wastes, from the vessel to the point of final destination or delivery. Submit chain of custody record to the COR upon completion of work.

3.5 Temporary plugs. The Contractor must plug all inlet and outlet piping in the void to prevent contaminants from entering the void or piping system for the entire duration of the tank cleaning and inspection. Use plugs with an attached lanyard, ring or other system that will ensure plugs are not lost in the pipe openings.

3.5.1 Plug log. The Contractor must keep a written record of all installed plugs. Keep a separate list for each void. Maintain a plug accountability log posted immediately outside the void to prevent any of the installed temporary plugs from being lost inside the void or left behind inside at void closure. The log must include the type and size of each plug, installation date, and removal date. Submit this log to the COR after completion of work item via a CFR.

3.5.2 The Contractor must ensure that all plugs are removed from each void upon completion of work in the void.

3.6 Void cleaning. The Contractor must clean all designated void interior surfaces free of all foreign materials, such as residual water, sediment, sludge, rust, or biological growth, taking care not to damage the coating system (if applicable).

3.6.1 The Contractor must accomplish all requirements of SFLC Std Spec 6310, 3.1.6.4 (Surface contaminant removal) to achieve the cleanliness requirements of SSPC-SP 1, including a low-pressure (maximum 5,000 psi) fresh water wash down of the surfaces.

3.6.2 Remove cleaning media and residues continuously from the void during the washing process. Remove any residual wash media and wipe up residual moisture with clean lint-free cloths. Wipe the interior void structure dry and free of all cleaning agents.

3.7 Inspection. The Contractor, in the presence of the CG Inspector, must inspect all void interior surfaces, including, but not limited to bulkheads, floor and overhead plating, structural members, manhole cover surfaces, fasteners and gasket seating surfaces. Using the Tank and Void Assessment form in General Requirements section 4.2, submit a CIR including the following, as applicable:

- Void structural condition.
- Condition of void coating, including dimensions, percentage, location, and type of coating failure.
- Tank level indicator (TLI) and/or float switch condition, if applicable
- Sounding tube and striker plate condition, if applicable
- Vent pipe and check valve condition
- Manhole cover, flange distortion, and stud welds
- Suction and discharge piping condition
- Ladder condition
- Fastener material and condition
- Zinc anode condition (remaining percentage)
- Pit measurements
- Ultrasonic thickness (UT) measurements

NOTE

Depending on the void conditions, it may not be necessary to perform all the pit measurements and ultrasonic measurements indicated on Table 1.

3.7.1 Pit measurement. The Contractor must measure all pits within each void/location listed in Table 1, in accordance with SFLC Std Spec 0740, Paragraph 3.13 (Evaluation of pitting corrosion). The results of these measurements must be included in the inspection report, showing where pit measurements were taken and the depth of the pit. For bidding purposes, use Table 1 for number of pit measurements per void.

3.7.2 Ultrasonic thickness (UT) measurement. Ultrasonic thickness (UT) measurement. The Contractor must take UT measurements in the surrounding area of any pit measuring greater than 25% of plate thickness. UT measurements must be taken in the four quadrants at an equal-distant radius from the pit center until full plate thickness is measured. UT measurements must be conducted in accordance with SFLC Std Spec 0740, Appendix C, using Coast Guard Drawings listed in Section 2. The results of these measurements (original thickness, measured thickness, and any observed cracks) and the locations where they were taken must be included in the inspection report. For bidding purposes, use Table 1 for number of UT measurements per void.

3.8 Substrate fairing and repair by filling Epoxy for shallow pits and small corrosions (i.e. pits < 25% or corrosions < 25%). The Contractor must repair small pin holes, shallow pitted substrates (with remaining plate thicknesses over 75% of required plate thicknesses), and fair corroded substrates (with remaining cross sections over 75% of required cross section areas), after removing coating, in accordance with SFLC Std Spec 6310 and manufacturers' instructions.

- For bidding purposes, procure the number of epoxy fairing kit(s) (0.5 Gallon/5 Kg Kit) as shown in Table 1.
- Epoxy fairing compound must meet the requirements of SFLC Std Spec 6310 Appendix C (MIL-PRF-24176 Cement, Epoxy, Metal Repair & Hull Smoothing).
- Turn over all unused kits to the COR.

NOTE
"Substrate fairing and repair by filling Epoxy for shallow pits and corrosions (i.e. pits < 25% or corrosions < 25%)" is a supplement barrier intending to help delay penetration.

3.9 Void closing. The Contractor must ensure that the void(s) remain open for approximately 24 hours after completion of any authorized repair and preservation procedures. Notify the COR at least 48 hours prior to closing the void(s). After satisfactory inspection by the Coast Guard Inspector and completion of all authorized repairs, remove all installed temporary plugs and document removal via signature on the plug log by the Coast Guard Inspector and Contractor prior to void closing. Close void manhole cover(s) using new gasket material in accordance with Coast Guard Drawing 750-WMSL-167-001, in the presence of the Coast Guard Inspector. Chase threads on studs to ensure even installation of the access covers. Renew all nuts, washers, and grommets (including those that are missing) in accordance with Coast Guard Drawing 750-WMSL-167-001. Covers must be reinstalled in their proper orientation with the marks made in paragraph 3.3. Do not use power tools to secure the manhole covers. Submit a CFR with the completed plug log.

NOTE
Coast Guard personnel will operate all shipboard machinery and equipment.

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

3.10.1 Perform a post-work operational test of each void TLIs to demonstrate that each radar head/sensor is functional (i.e., Digital readout is displayed).

3.10.2 Ensure that there is interface/communication between the TLI sensor and the Machinery Control and Monitoring System (i.e. Digital readout at the TLI is identical to that displayed).

3.11 Touch-up preservation. The Contractor must prepare and coat all new and disturbed surfaces, and all disturbed manhole cover external surfaces to match existing adjacent surfaces in accordance with SFLC Std Spec 6310, paragraph 3.1.13 (Touch-ups and minor coating repairs). Do not paint any manhole cover fasteners.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 16: Dry Provision Storeroom, Modify

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to modify Dry Provisions Storeroom 1-67-2-A and adjacent compartments as listed in Table 1. This work includes the addition of storage shelving, a can rack, and expansion of the bulk stowage grid and associated restraints. These modifications will also include hot works on decks and bulkhead scantlings, which will require gas free certification of affected spaces and may affect deck covering and preservation.

TABLE 1 WORK REQUIREMENTS

COMPARTMENTS	ITEMS	REQUIREMENTS
Passage 1-64-0-L	Sewage Piping (VCHT 111-031) Joiner Bhd, Door, and Coaming	- Relocate Sewage Piping (VCHT 111-031) via Passage 1-64-0-L/outside of Dry Provisions Storeroom 1-67-2-A (from Fan Room 1-70-2-Q to Deck Toilet 1-66-2-L) - Install Joiner Bulkhead, Door, and Coaming.
General Stores 1-66-4-A	Vent Plenum HVAC	- Remove Vent Plenum. - Relocate HVAC.
Dry Provisions Storeroom 1-67-2-A	HVAC Shelves, Can Rack, Stowage Grid	- Relocate HVAC - Install Shelving, Can Rack, Stowage Grid.
Dry Provisions Storeroom Annex 1-71-2-A	New Space / Compartment and Number	- New Space created within Passage 1-64-0-L.

Table 1: All information is for bidding purposes only.

1.2 Government-furnished property.

TABLE 2 GOVERNMENT FURNISHED PROPERTY

MTI	ITEM DESCRIPTION	NSN/PN	QTY	PRICE ($/UNIT)
N	Switch, Thermostatic	NSN: 5930-01-342-3911 (PN: 444-10)	2 ea.	100.00

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

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_100_1, Rev B, General Arrangements

Coast Guard Drawing 418A-WMSL_180_3, Rev C, SS-1-69-2 Fan Fdn Modifications

Coast Guard Drawing 418A-WMSL_512_3, Rev C, HVAC Modifications for Dry Provisions Stowage Mods

Coast Guard Drawing 418A-WMSL_593_6, Rev -, Reroute Sewage Piping iwo Dry Provisions Rm

Coast Guard Drawing 418A-WMSL_672_2, Rev D, Dry Provisions Storeroom Modifications

Coast Guard Drawing 750-WMSL_320_4, Rev D, Power Sys Dk Plan - 1st Platf & Below, Fwd of Fr 36 & Aft of Fr 70 Cable Routing (ASC320003)

Coast Guard Drawing 750-WMSL_512_59, Rev D, HVAC Equipment List (ASC512004)

Coast Guard Drawing 750-WMSL_512_534, Rev D, HVAC Equipment List

Coast Guard Drawing 750-WMSL_600_30, Rev K, Fab & Instl of Hull Outfit Design, Unit 3140 (ASC600314)

Coast Guard Drawing 750-WMSL_635_2, Rev K, Insulation Arr & Details Thermal, Acoustic, & Fire (ASC635002)

Coast Guard Drawing 750-WMSL_635_502, Rev -, Insulation Arr & Details Thermal, Acoustic, & Fire (WMSL 754 & Follow)

Coast Guard Drawing 750-WMSL_640_502, Rev -, Furniture Schedule (WMSL 754 & Follow)

NAVSEA Drawing 803-5184182, Rev B, Insulation, Passive Fire Protection- Installation Details

NAVSEA Drawing 804-5773931, Rev A, Acoustic & Thermal Insulation for Compartments Installation Details

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 0850 (SFLC Std Spec 0850), 2022, General Requirements for Drawing Preparation

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 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 (ASNT), Recommended Practice No. SNT-TC-1A, 2024, Personnel Qualification and Certification in Nondestructive Testing

American Society for Nondestructive Testing (ASNT), Standard No. ANSI/ASNT CP-189-2024, 2024, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel

American Welding Society (AWS) B1.10M/ B1.10, 2016, Guide for Nondestructive Examination of Welds

American Welding Society (AWS) B1.11M/B1.11, 2015, Guide for the Visual Examination of Welds

American Welding Society (AWS) D1.1/D1.1M, 2025, Structural Welding Code – Steel

MIL-DTL-32585A w/ Amendment 1, 2023, Insulation, Thermal and Acoustic, Fibrous Glass

MIL-STD-1689A, 1990, Fabrication, Welding, and Inspection of Ships Structure

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.3 (SSPC-SP 3), 2024, Power Tool Cleaning

The Society for Protective Coatings (SSPC) Surface Preparation Specification No.11 (SSPC-SP 11), 2020, Power Tool Cleaning to Bare Metal

3. REQUIREMENTS

3.1 General.

3.1.1 CIR. The Contractor must submit a CIR for the inspections listed in the following paragraph(s) :

None.

3.1.2 Tech Rep. The Contractor must provide the services of Tech Reps and personnel as follows :

- Marine Chemist
- NDE Tech Rep : NDE Inspector/Level 2

3.1.2.1 Marine Chemist. The Contractor must provide the services of Marine Chemist/Gas Free in accordance with Work Item General Requirements and SFLC Std Spec 0000.

3.1.2.2 NDE Tech Rep. The Contractor must provide the services of a qualified and certified NDE Inspector/Level 2 as follows:

- Perform NDE Operations and Inspections.

3.1.2.2.1 Qualifications/certifications. NDE Inspector/Level 2 certified and qualified in accordance with ASNT No. SNT-TC-1A. Submit the Tech Rep's qualifications/certifications to the COR at the Arrival Conference.

3.1.2.2.2 Dates of services. Include the dates of services in which Tech Reps must be on site as per their subcontract documentation.

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).

3.1.3.1 Specific protections. Specific areas/equipment/ components to be protected include, but are not limited to:

- Machinery spaces
- Machinery, equipment, and components

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

below listed :

- Machinery, equipment, and components (e.g. removable components/parts)
- Ventilation systems, and components (e.g. removable components/parts)
- Storages (e.g. shelves, racks)
- Water mist tank # 2
- Sheathing
- Insulation
- Deck covering
- Drains, covers, and plugs
- Closures
- Outfits, foundations, and fittings
- Controls and terminals
- Lights, alarms, cameras, speakers, sensors, switches, and supports
- Piping, hoses, and supports
- Cables, wires, and supports

3.1.4.1 Water mist tank # 2. Water will be transferred, stripped out, and pressed down by ship's force to at least 12 inches away from welding areas.

3.1.5 Work locations. The concerned work areas are listed in Table 1. See the applicable drawings in Section 2 for guidance, locations, and details.

3.1.6 Materials, tools, and services. The Contractor must provide materials, tools, and services to accomplish the requirements in this work item. New components, parts, materials, and paints with the same color, comparable and matching material properties as the existing components/parts. Use references in Sections 1, 2 and SFLC Std Specs for guidance, required materials, and details.

- Provide and apply wing nuts instead of nuts for easier shelf disassembly and re-assembly.

3.1.7 Contamination prevention. The Contractor must take all precautions to prevent contamination of personnel and spaces in accordance with all applicable Federal, state, and local regulations.

3.1.8 Work plan. The Contractor must provide a work plan for the modifications of Dry Provisions Storeroom and adjacent compartments including items listed in Table 1 and related Coast Guard Drawings provided in Section 2 to the COR at the Arrival Conference.

3.1.10 Work coordination. The Contractor must coordinate the accomplishment of this work item with the following work items. Work coordination paragraph refers to both specification Work Items and interferences listen in paragraph 3.1.4 that involve additional work the KTR will need to coordinate. :

- Work Item 7: Deck Covering (Polymeric), Repair and Seal

- Work Item 14: Grey Water Holding Tank(s) and Lift Stations, Clean and Inspect, 3.1.5 Service disruption. When grey water is disrupted due to Contractor repairs, the Contractor must refer to SFLC Standard Spec 0000 par 3.2.11 to provide required temporary facilities.

- Work Item 16: Dry Provision Storeroom, Modify , 3.1.4 Interferences. The Contractor must handle all interferences as listed below in accordance with SFLC Std Spec 0000, Paragraph 3.3.5 (Interferences). Known interferences include, but are not limited to the below listed:

• Machinery, equipment, and components (e.g. removable components/parts)
• Ventilation systems, and components (e.g. removable components/parts)
• Storages (e.g. shelves, racks)
• Water mist tank # 2
• Sheathing
• Insulation
• Deck covering
• Drains, covers, and plugs
• Closures
• Outfits, foundations, and fittings
• Controls and terminals
• Lights, alarms, cameras, speakers, sensors, switches, and supports
• Piping, hoses, and supports
• Cables, wires, and supports

3.1.11 Notification. The Contractor must notify the COR 48 hours prior to starting work on this item.

3.2 Ship check. In coordination with the Coast Guard Inspector, the Contractor must shipcheck for the modifications of Dry Provisions Storeroom and adjacent compartments including items listed in Table 1 and related Coast Guard Drawings provided in Section 2. Submit a CFR.

3.3 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.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.4 Removals. The Contractor must remove the following items. Refer to Drawings and References in Section 2 as guidance.

3.4.1 Stowage. The Contractor must remove portion of existing stowage grid in way of new can rack installation. Remove stowage shelf over transformer. Refer to Coast Guard Drawing 418A-WMSL-672-002 for locations and details.

3.4.2 HVAC system. The Contractor must remove Supply Fan, SS-1-69-2 and ductwork from Dry Provisions Storeroom. Retain the fan and portions of the duct for reinstallation. Refer to Coast Guard Drawing 418A-WMSL-512-003 for locations and details.

3.4.3 Sewage piping. The Contracor must remove the sewage piping that runs through dry provisions storeroom for rerouting outside of the stores space. Refer to Coast Guard Drawing 418A-WMSL-593-006 for locations and details.

3.4.4 Bulkhead. The Contractor must remove intake plenum bulkhead between Frame 69 and Frame 70, remove portion of bulkhead 70 for new duct spool penetration, and remove the fan foundation from Dry Provisions Storeroom. Refer to Coast Guard Drawing 418A-WMSL-180-003 for locations and details.

3.5 Installations. The Contractor must install the following systems, outfits, fittings, bulkheads, and associated systems and components. Use the Drawings and References in Section 2 as guidance.

3.5.1 Bulk stowage grid. Within the Dry Provisions Storeroom, the Contractor must install bulk stowage grid on the deck and in the overhead. This installation includes removable vertical battens located at the edge of the grid and adjustable/moveable battens, known as "Pogo Sticks", located within the grid. This installation expands the deck area covered by the existing stowage grid. Refer to Coast Guard Drawing 418A-WMSL-672-002 for location and details.

3.5.2 Foundations and supports. The Contractor must install a fan foundation, associated supporting structure, and patch previous penetration through Bulkhead 70. Refer to Coast Guard Drawing 418A-WMSL-180-003 for locations and details.

3.5.3 Bulkhead, door, and coaming. The Contractor must install joiner bulkhead, joiner door, and associated coamings, curtain plate, and fittings in Passage 1-64-0-L to create new storage area in this space, named as "Dry Provisions Storeroom Annex 1-72-2-A". Refer to Coast Guard Drawing 418A-WMSL-672-002 for locations and details.

3.5.4 Sewage piping. The Contractor must install and reroute new Sewage Piping VCHT 111-031 via Passage 1-64-0-L (from Fan Room 1-70-2-Q to Deck Toilet 1-66-2-L). Refer to Coast Guard Drawing 418A-WMSL-593-006 for locations and details.

3.5.5 HVAC. The contractor must install the previously removed Supply Fan SS-1-69-2 and associated duct work. Refer to Coast Guard Drawing 418A-WMSL-512-003 for locations and details.

3.5.5.1 Heater thermostats. Install and connect heater thermostats in accordance with Coast Guard Drawings 418A-WMSL-512-003 and 750-WMSL-512-059/-534.

- Thermostat for Preheater PHR 1-67-2. Refer to Coast Guard Drawing 418A-WMSL-512-003, Elevation 21-A and Section 21-E, and Coast Guard Drawing 750-WMSL-512-059/-534, Arrangement A Electric Preheater Control. It is located after Heater Downstream Flow.
- Thermostat for Reheater RHR 1-70-2. Refer to Coast Guard Drawing 418A-WMSL-512-003, Plan View 27-D, and Coast Guard Drawing 750-WMSL-512-059/-534, Arrangement E Electric Reheater Control. Proper location is recommended to be around Switch and Plug area near Joiner Door inside Dry Provisions Storeroom Annex 1-72-2-A.

3.5.6 Electrical modification. Relocate fan in accordance with Coast Guard Drawing 750-WMSL-320-004.

3.5.7 Equipment guard. The Contractor must install a removable equipment guard made of expanded metal around the existing electrical transformer. Refer to Coast Guard Drawing 418A-WMSL-672-002 for locations and details.

3.5.8 Shelves. The Contractor must fabricate, assemble and removable shelves, and install them along the cutter shell in the Dry Provisions Storeroom and along the aft bulkhead of the new Dry Provisions Storeroom Annex. Refer to Coast Guard Drawing 418A-WMSL-672-002 for location and details.

3.5.9 Can rack. The Contractor must fabricate, assemble and removable can rack in the Dry Provisions Storeroom. Refer to Coast Guard Drawing 418A-WMSL-672-002 for location and details.

3.6 Welding requirements. The Contractor must perform all welding and allied processes, and nondestructive examination (NDE), in accordance with SFLC Std Spec 0740.

3.7 NDE. In presence of the Coast Guard Inspector, the Contractor must perform NDE in accordance with SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.8 Boundary test (on watertight boundaries). In presence of the Coast Guard Inspector, the Contractor must verify the integrity of all boundaries affected by this work item using one of the methods described in SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.9 Electrical works. 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 as much as possible.

3.10 Deck covering. The Contractor must repair damaged or disturbed deck covering in accordance with SFLC Std Spec 6341.

- Seal all deck covering.

3.11 Insulation. The Contractor must renew all removed or damaged insulation in accordance with Coast Guard Drawings 750-WMSL-635-002 and 750-WMSL-635-503, NAVSEA Drawings 803-5184182 and 804-5773931, and MIL-DTL-32585A, if existing.

3.12 Sheathing. The Contractor must renew the removed and damaged sheathing on insulation, if existing.

- Flash the expanded metal edges created by cutting, if existing.

3.13 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.

3.14 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).

- Paint on all new bulkheads, doors and panels, foundations, brackets, and connecting points including disturbed areas.
- Need not paint aluminum structures and components (i.e. shelf structures, components, fittings, or any other components made from aluminum).

3.15 Redlined drawing deliverable(s). The Contractor must “red-line” Coast Guard Drawing 418A-WMSL-512-003, 418A-WMSL-593-006, 418A-WMSL-672-002, and any other Coast Guard Drawings affected by discrepancies, relocations or modifications to reflect the work or deviations specified in this work item in accordance SFLC Std Spec 0850. Submit a CFR.

3.15.1 Preliminary/draft submission. No later than 24 hours after completion of this work item, submit a draft copy of the "red-lined" drawing(s) to the COR for review and approval.

3.15.2 Final submission. No later than 10 calendar days after receiving Coast Guard comments or completion of the availability, whichever occurs first, incorporate all comments and deliver one set of the final red-lined drawing(s) to the COR.

4. NOTES

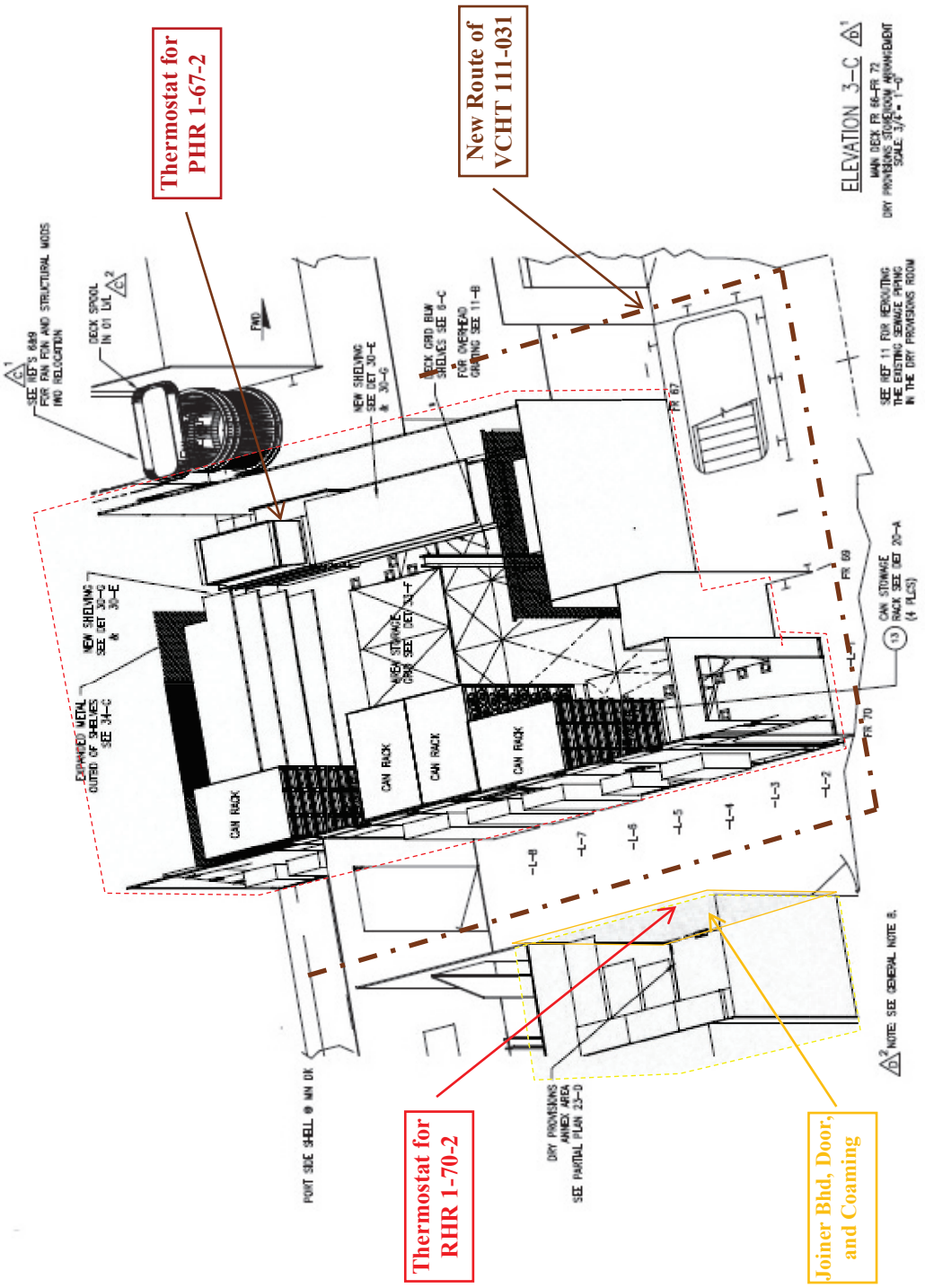
Thermostat for PHR 1-67-2
New Route of VCHT 111-031
Thermostat for RHR 1-70-2
Joiner Bhd, Door, and Coaming
ELEVATION 3-C
CAN RACK
CAN RACK
CAN RACK
CAN RACK
FWD
PORT SIDE SHELL @ MN DK
DRY PROVISIONS ANNEX AREA SEE PARTIAL PLAN 23-D
NOTE: SEE GENERAL NOTE 8.

FIGURE 1 DRY PROVISIONS STOREROOM MODIFICATION
(CG DWG 418A-WMSL-672-002, REV D, DRY PROVISIONS STOREROOM MODIFICATIONS)

WORK ITEM 17: Ship's Service Diesel Generator (SSDG), Control Panel, Upgrade

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to remove the existing electronic control module from the Caterpillar (CAT) Electronic Modular Control Panel (EMCP) 3.3, replace with CAT EMCP 4.2B, and conduct related inspection and testing. Replace control modules on all 3 SSDG for the ship.

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
Y	EMCP 4.2B	NSN: 2990-01-725-4554 PN: 592-5156	3 ea.	3,250.00

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 750-WMSL_501_2, Rev E, Machinery Arrangements

COAST GUARD PUBLICATIONS

Coast Guard Technical Publication (TP) 14025, SWBS 311, Nov 2022, Ships Service Diesel Generator Sets, Caterpillar 3512B Marine Auxiliary Technical Manual Volume I

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

OTHER REFERENCES

Caterpillar Application and Installation Guide, EMCP 4.1, 4.2 Generator Set Control

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 Caterpillar 3512B Generator Set 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 résumé.

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 EMCP Configuration. The tech rep must provide proposed configuration file for the new EMCP 4.2B to be installed, in a CAT ET readable format and PDF for review by LRE PL engineering. Submit a CFR.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.3 Operational test, initial. Prior to commencement of work, in the presence of a CG Inspector, the Contractor must witness Coast Guard personnel perform an initial operational test of the SSDG to demonstrate existing operational condition. Submit a CFR.

3.3.1 Connect CAT ET and download existing EMCP 3.3 configuration before starting the generator set for the operational test, as a back-up and for documentation purposes. Save the file as an "ECM Replacement" file.

3.3.1.1 Save the product status report (PSR) and investigate any active fault codes. Include PSR and description of corrective actions in the CFR.

3.3.2 Run the SSDG for a minimum of 15 minutes unloaded, 15 minutes loaded, while CAT ET is connected for datalogging. Record any anomalous data, error codes, alarms, or malfunctions which occur during the test, and include the information in the CFR.

3.3.2.1 Download post-operational test PSR, and include in the CFR.

3.4 Inspect generator set control wiring. The Contractor must inspect all control wiring on the skid and all connectors. Verify all wiring is terminated securely, and all pins are seated in their respective connectors. Ensure system grounding and bonding is connected according to the schematics in TP 14025, and guidance from the CAT application and installation guide. Submit a CFR.

3.4.1 Verify that installed SSDG wiring requirements are compliant with the CAT Application and Installation Guide, Section 3. Include any discrepancy in the CFR.

3.4.2 Turn off control power to the EMCP in preparation for removal and installation process.

3.5 Remove existing EMCP 3.3. Unplug, unbolt, and remove the installed electronic control module for the EMCP 3.3. Remove any annunciator or alarm modules which are no longer compatible or necessary for operation using the new 4.2B control module and replace with a blank cover.

3.5.1 Package removed EMCP 3.3 control module and contact LREPL SES-1 for disposition instructions.

3.6 Install new EMCP 4.2B. Bolt new EMCP 4.2B control module to the existing control panel and connect wiring harness.

3.6.1 The Contractor must provide any special tools, and additional or replacement hardware necessary to complete the installation.

3.6.2 Flash approved configuration for the new control module, under oversight of the Coast Guard Inspector. Save a product status report (PSR) and submit via CFR.

3.6.3 Move shutdown over-ride input at the control module connector A-C3 to pin 28.

3.6.4 Turn on control power and verify that module powers up and is free of errors.

3.7 Operational test, post repairs. After completion of work and in the presence of the Coast Guard Inspector, the Contractor must thoroughly test and demonstrate the SSDG in both loaded and unloaded operating conditions, for a minimum of 15 minutes in each condition. Submit a CFR.

3.7.1 Connect to the EMCP 4.2B using CAT ET software, and monitor the generator set during both loaded and unloaded operation. Submit the data file, and any anomalous data, error codes, or malfunctions as part of the CFR.

3.7.2 In the event of anomaly or errors, make corrections if possible and repeat the operational test. If extensive repair and troubleshooting is needed, provide recommendations in the CFR.

3.7.3 Verify the generator set continues to run when shutdown over-ride condition is switched on, while the generator is being tested unloaded.

3.8 Documentation updates. The Contractor must provide the latest revision of the EMCP 4.2B operations and maintenance manual applicable to the upgraded system, to be forwarded to LREPL SES-1 for inclusion in the ship’s documentation. Submit a CFR.

4. NOTES

This section is not applicable to this work item.

WORK ITEM 18: Hydraulic System Quick Disconnect, Install

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to install quick disconnects on the Hydraulic Power Units (HPU) servicing the bow thruster, anchor windlass, gas turbine hydraulic starter, stern gate, folding boom crane and steering gear.

1.2 Government-furnished property.

None

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_556_3, Rev A, Bow Thruster HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_4, Rev -, Anchor Windlass HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_5, Rev -, GT Hydraulic Start HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_556_6, Rev-, Stern Gate HPU Filter Cart Quick Connections

Coast Guard Drawing 418A-WMSL_583_1, Rev -, Folding Boom Crane HPU Filter Cart Quick Connections

Coast Guard Drawing 750-WMSL_556_505, Rev -, Steering Gear Hydraulic Filter Cart Quick Connections

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.

Note 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).

3.1.6 Fluid handling. The Contractor must remove and dispose of removed fluids from the affected piping system, in accordance with all applicable Federal, state, and local regulations

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. General Guidelines. The following requirements apply to all modifications in this work item.

3.3.1. All welds and NDE must be in accordance with SFLC Std Spec 0740

3.3.2. The Contractor must drain all HPUs prior to conducting the modification. Retain the hydraulic fluid for re-install

3.3.3. If hot work is required for the modification, then the Contractor is responsible for certifying that the space is safe for hot work and for cleaning the hydraulic tank as required to achieve that certification.

3.3.4. Prior to re-installing the hydraulic fluid, the Contractor must clean the debris they create out of the tank. A Coast Guard Inspector must verify that the debris has been removed prior to re-installation of the hydraulic fluid. Submit a CFR documenting this inspection.

3.3.5. When re-installing the hydraulic fluid, the Contractor must pass the fluid through a three-micron absolute, non-bypass type filter designed specifically for filtering oils and other lubricants.

3.3.6. The Contractor does not need to install the connections onto the hose from the filter cart. They need to assemble those pieces and provide the assembled unit to the Coast Guard.

3.3.7. Hydrostatic test. After all authorized modifications, the Contractor must hydrostatically test all new piping to 47 psi in accordance with SFLC Std Spec 0740, Appendix C, Hydrostatic Test. The portion that

will be attached to the hose can be tested separately, but the portion of the piping that penetrates the tank cover must be tested after the piping has been welded to the cover. Ensure zero leakage from or permanent deformation of pressure-containing parts by repairing all leaks, deformations, and discrepancies. Submit a CFR.

3.3.8. Renew all disturbed gaskets.

3.4 Bow Thruster HPU. The Contractor must modify the bow thruster HPU in accordance with Coast Guard Drawing 418A-WMSL-556-003.

3.5 Anchor Windlass HPU. The Contractor must modify the anchor windlass HPU in accordance with Coast Guard Drawing 418A-WMSL-556-004.

3.6 Gas Turbine (GT) Hydraulic Start HPU. The Contractor must modify the GT Hydraulic Start HPU in accordance with Coast Guard Drawing 418A-WMSL-556-005.

3.6 Stern Gate HPU. The Contractor must modify the Stern Gate HPU in accordance with Coast Guard Drawing 418A-WMSL-556-006.

3.7 Folding Boom Crane HPU. The Contractor must modify the Folding Boom Crane HPU in accordance with Coast Guard Drawing 418A-WMSL-583-001.

3.8. Steering Gear HPU. The Contractor must modify the Steering Gear HPU in accordance with Coast Guard Drawing 750-WMSL-556-505.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.7 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.

3.10 Touch-up preservation, general. The Contractor must prepare and coat all new and disturbed exterior and interior surfaces, as applicable, 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 19: Aft Gray Water Piping, Modify

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to install inline strainers on the suction side of the gray water discharge pumps and install transfer piping between the forward and aft grey water tanks.

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	Strainer, Sediment (3 inch IPS, Simplex Basket, 1/2 - inch Perforated)	NSN: 4730-01-428-3199	2 ea.	5,500.00

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 750-WMSL_528_502, Rev -, Forward Gray Water Tank Transfer to Aft Tank

Coast Guard Drawing 750-WMSL_528_503, Rev A, Aft Gray Water Tank Strainer Install

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.

Note 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).

3.1.5 Contamination prevention. The Contractor must take all precautions to prevent contamination of personnel and spaces in accordance with all applicable Federal, state, and local regulations.

3.1.6 Fluid handling. The Contractor must remove and dispose of removed fluids from the affected piping system, in accordance with all applicable Federal, state, and local regulations

3.1.7 Service disruption. When grey water is disrupted due to Contractor repairs, the Contractor must refer to SFLC Standard Spec 0000 par 3.2.11 to provide required temporary facilities.

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 Gray water piping modification. The Contractor must modify the gray water system piping in accordance with Coast Guard Drawing 750-WMSL-528-502 and 750-WMSL-528-503.

3.3.1 Remove a section of piping downstream of the aft gray water pump station and cut a hole in the top of aft gray water tank for new piping. Refer to Coast Guard Drawing 750-WMSL-528-502 for location of work.

3.3.2 Install new piping and valve attaching the top of the aft gray water tank to the existing transfer piping. Work in accordance with Coast Guard Drawing 750-WMSL-528-502.

3.3.3 Remove sections of piping on the suction side of the gray water pumps #3 and #4 in accordance with Coast Guard Drawing 750-WMSL-528-503. 3.3.4 Install piping, valves, strainers, and strainer foundations to the suction side of the gray water pumps #3 and #4 in accordance with Coast Guard Drawing 750-WMSL-528-503.

3.3.5 All welding, brazing, or other hot work must be conducted in accordance with SFLC Std Spec 0740. The Contractor must supply a Marine Chemist with current certification to gas free space prior to any hot work

3.3.6 NDE. The Contractor must perform NDE of the newly installed piping and structures in accordance with SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.4 Boundary test, air hose. The Contractor must inspect and perform an air hose test of all affected boundaries in accordance with SFLC Std Spec 0740, Appendix C. Submit a CFR.

3.5 Hydrostatic test. After all authorized repairs, the Contractor must hydrostatically test all new and disturbed piping and components of the gray water system in accordance with SFLC Std Spec 0740, Appendix C, Hydrostatic Test. Ensure zero leakage from or permanent deformation of pressure-containing parts by repairing all leaks, deformations, and discrepancies. Submit a CFR

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.7 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.

3.8 Piping preservation. The Contractor must prepare and coat the external surfaces of the piping using the system specified for "Piping, Interior (Piping, Insulated and Uninsulated, Under 200ºF)" Appendix B (Cutter and Boat Interior Painting Systems) in SFLC Std Spec 6310.

3.9 Pipe labeling. The Contractor must label affected piping as follows:

3.9.1 Stencil the following onto the pipe/lagging surfaces:

- Name of the piping system service.
- Destination, where feasible.
- Direction of flow, indicated by an arrow three inches long pointing away from the lettering (for reversible flow, point an arrow away from each end of the lettering).

3.9.2 Ensure all lettering and arrow(s) are as follows:

- In general, black color except white for dark-colored piping.
- Applied in conspicuous locations and preferably near control valves.

3.10 Touch-up preservation, general. The Contractor must prepare and coat all new and disturbed exterior and interior surfaces, as applicable, 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 20: FWD Gray Water Tank Strainers, Install

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to install strainers to FWD Gray Water Tank Pumps (i.e. No. 1 and No. 2) piping listed in Table 1.

TABLE 1 – LIST OF TANKS

SYSTEM	PIPING	LOCATION	COAST GUARD DRAWING
FWD Gray Water Tank (3-34-0-W)	Pump No. 1 and Pump No. 2	Auxiliary Machinery Room (5-36-01-E)	750-WMSL-528-504

1.2 Government-furnished property.

None

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 750-WMSL_500_2, Rev E, Resilient Hanger Details & Installation (ASC500002)

Coast Guard Drawing 750-WMSL_528_15, Rev E, Plumbing & Interior Deck Drains and Vent System Unit 2110 (ASC528211-PD)

Coast Guard Drawing 750-WMSL_528_504, Rev -, FWD Gray Water Tank Strainer Install

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 0850 (SFLC Std Spec 0850), 2022, General Requirements for Drawing Preparation

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.

Note 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 below-listed:

- Piping
- Deck Plating
- Engine Room Bilges

3.1.5 Service disruption. When grey water is disrupted due to Contractor repairs, the Contractor must refer to SFLC Standard Spec 0000 par 3.2.11 to provide required temporary facilities.

NOTE

Ship check by the Contractor is recommended to determine exact components' location, interferences and piping required for this work item. For ship check, the Contractor must contact the Contracting Officer

3.2 Welding and brazing requirements. The Contractor must perform all welding and allied processes, and nondestructive examination (NDE) in accordance with SFLC Std Spec 0740.

3.3 Fluid handling. The Contractor must drain and dispose of residual fluid and cleaning fluid in compliance with all applicable Federal, state, and local laws, ordinances, regulations and SFLC Standard Specification 0000. Notify the COR (in writing) at least 5 days prior to removal of wastes and fluids. Document a complete chain of custody record of the removed contents and generated wastes, from the vessel to the point of final destination or delivery. Submit document to the COR upon completion of work.

3.4 Hangers. The Contractor must support all new piping against vibration in accordance with Coast Guard Drawing 750-WMSL-500-002. Pipe hangers must be rubber lined. Hanger spacing must be no greater than 6 feet. Relocate existing piping hangers as needed to support new piping and valve installation. Pipe hanger must be painted in white color.

3.5 Labels and tags. The Contractor must provide Labels and Tags in accordance with Para 3.3.12 of SFLC Std Spec 0000 and Coast Guard Drawing 750-WMSL-528-504.

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.6 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.

3.7 Piping rip out. The Contractor must rip out piping of Pump No.1 and Pump No.2 in accordance with Coast Guard Drawing 750-WMSL-528-504 and SFLC Std Spec 0740. Immediately after rip out, install blank flanges and gaskets over all openings and secure each flange with at least two bolts, 180 degrees apart. Visually inspect associated flanges and piping for damage and corrosion; submit a CFR.

3.8 Strainer installation. The Contractor must install strainers, piping, valves and foundation to Pump No.1 and Pump No.2 in accordance with Coast Guard Drawing 750-WMSL-528-504 and SFLC Std Spec 0740. Ensure blank flanges are removed prior to strainer installation.

3.9 Pipe preservation. The Contractor must prepare and coat the external surfaces of the new piping using the system specified for “Piping, Interior (Piping, Insulated and Uninsulated, Under 200ºF)” Appendix B (Cutter and Boat Interior Painting Systems) in SFLC Std Spec 6310.

3.10 Strainer foundation preservation. The Contractor must prepare and coat the foundation of the new strainer foundation using the system specified for “Machinery, Interior (Operating Temperature, Under 200ºF)” Appendix B (Cutter and Boat Interior Painting Systems) in SFLC Std Spec 6310.

3.11 Leak test. After completing all authorized mechanical (i.e. threaded, bolted, etc.) joint repairs, the Contractor must test the system's operation using the system fluid at normal operating pressure. Ensure zero visible leakage from or deformation of mechanical parts by repairing all leaks and discrepancies. Submit a CFR

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.12 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.

3.13 Redlined drawing deliverable(s). The Contractor must “red-line” 750-WMSL-528-504 to reflect the work or deviations specified in this work item in accordance SFLC Std Spec 0850.

3.13.1 Preliminary/draft submission. No later than 24 hours after completion of this work item, submit a draft copy of the "red-lined" drawing(s) to the COR for review and approval.

3.13.2 Final submission. No later than 10 calendar days after receiving Coast Guard comments or completion of the availability, whichever occurs first, incorporate all comments and deliver one set of the final red-lined drawing(s) to the COR.

3.14 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, (Touch-ups and minor coating repairs).

4. NOTES

This section is not applicable to this work item.

WORK ITEM 21: Fuel Valves, Replace

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to install 8-inch Flowserve manually operated butterfly valves in place of the existing 8-inch Motor Operated Valves (MOVs) FT-V-022 and FT-V-029 as installed near Frame 47, 01 deck STBD and PORT aboard 418' WMSL class cutter..

1.2 Government-furnished property.

MTI	ITEM DESCRIPTION	NSN/PN	QTY	ESTIMATED COST ($/UNIT)
N	Flowserve Durco 8-BX2-L1111A1v1nz Performance Butterfly Valve with Gear Wheel Operator	NSN: 4820-01-F24-6975	2 ea.	5,302.00

2. REFERENCES

COAST GUARD DRAWINGS

Coast Guard Drawing 418A-WMSL_540_1, Rev C, Fuel Oil Diagram

Coast Guard Drawing 750-WMSL_540_54, Rev B, Fuel Transfer Unit 4310

Coast Guard Drawing 750-WMSL_202_501, Rev E, MCMS Remote Terminal Units Fire Zone No. 2 Deck Plan

Coast Guard Drawing 750-WMSL_320_22, Rev F, Power Operated Valve Deck Plan Wiring Diagram

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 3042 (SFLC Std Spec 3042), 2022, Shipboard Electrical Cable Removal, Relocation, Splice, Repair, and Installation

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

OTHER REFERENCES

Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), SP-58, 2018, Pipe Hangers and Supports – Materials, Design, Manufacture, Selection, Application and Installation

3. REQUIREMENTS

3.1 General.

3.1.1 CIR.

None.

3.1.2 Tech Rep.

Note 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:

- Piping

3.1.5 Fluid handling. The Contractor must remove and dispose of removed fluids from the affected piping system, in accordance with all applicable Federal, state, and local regulations

3.1.6 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 as much as possible.

3.1.7. Gas Free. The Contractor must conduct all cleaning and/or isolation necessary to complete hot work for this modification.

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 8-inch MOV Removal. The Contractor must remove the existing 8-inch MOV (FT-V-022) and all associated components installed near Frame 47, 01 deck STBD side and remove the existing 8-inch MOV (FT-V-029) and all associated components installed near Frame 47, 01 deck PORT side as specified in the Coast Guard Drawing 750-WMSL-540-054, see Figure 1 and Figure 2.

3.5 Electrical cable removal. The Contractor must remove the below actuator electrical cables as specified in the Coast Guard Drawings 750-WMSL-202-501 and 750-WMSL-320-022.

3.5.1 CGMCS Cable Removal for each Valve.

3.5.1.1.. FT-V-022: Circuit K-RTU13-20 between Vent Fan SS-55 to FT-V-022 and Circuit KRTU13-21 between FT-V-022 to Vent Fan RS-2 in accordance with Coast Guard Drawing 750-WMSL-202-501.

3.5.1.2. FT-V-029: Circuit K-RTU14-2 between POV MD-V-054 to FT-V-029 and Circuit KRTU14-3 between FT-V-029 to Vent Fan RS-16 in accordance with Coast Guard Drawing 750-WMSL-202-501.

3.5.1.2 Power Cable and Component Removal.

3.5.1.3 Circuit: (3-25-2)-4P-H3 and Junction Box, (3-25-2)-4P-H4, (3-25-2)-4P-H5 and Disconnect switches in accordance with Coast Guard Drawing 750-WMSL-320-022.

3.5.2 Stuffing tube and cable bracket removal.

3.5.3 The Contractor must cap and seal existing deck stuffing tubes. Remove unused cable hanger in accordance with SFLC Std Spec 3042.

3.5.4 Dispose of all removed components not specified for reuse in accordance with all applicable Federal, state, and local regulations.

3.6 8-inch Manual Butterfly Valve Installation. The Contractor must install a new 8-inch manual butterfly valve near Frame 47, 01 deck STBD side and a new 8-inch manual butterfly valve near Frame 47, 01 deck PORT side in accordance with Coast Guard Drawing 418A-WMSL-540-001. The Contractor will provide and fabricate new gaskets and renew hardware for installation.

3.6.1 Electrical Cable Installation. The Contractor must install the below new electrical cables in accordance with Coast Guard Drawing 750-WMSL-202-501.

3.6.1.1 FT-V-022: Circuit K-RTU13-20 between Vent Fan SS-55 to Vent Fan RS-2.

3.6.1.2 FT-V-029: Circuit K-RTU14-2 between POV MD-V-054 to VENT Fan RS-16.
3.6.2 Pipe hanger Installation. The Contractor must furnish, fit or re-install pipe hanger in accordance with MSS SP-58.

3.6.3 Clean and inspect all re-used components prior to re-installation.

3.8 Hydrostatic Test. After all authorized repairs, the Contractor must hydrostatically test all new piping in accordance with SFLC Std Spec 0740, Appendix C, Hydrostatic Test. Ensure zero leakage from or permanent deformation of pressure-containing parts by repairing all leaks, deformations, and discrepancies. Submit a CFR.

3.9 Leak test. After completing all authorized mechanical (i.e. threaded, bolted, etc.) joint repairs, the Contractor must test the piping's operation using the system fluid at normal operating pressure. Ensure zero visible leakage from or deformation of mechanical parts by repairing all leaks and discrepancies. Submit a CFR

NOTE

Coast Guard personnel will operate all shipboard machinery and equipment.

3.7 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.

3.10 Touch-up preservation, general. The Contractor must prepare and coat all new and disturbed exterior and interior surfaces, as applicable, 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 22: Fire Prevention, Provide

1. SCOPE

1.1 Intent. This work item describes the requirements for the Contractor to provide a fire plan, discuss fire safety procedures, maintain fire boundaries and fittings, conduct inspections and keep firefighting systems in a ready condition to address fires.

NOTE

Contractors are not required to fight fires aboard USCG Cutters

1.2 Government-furnished property.

None.

2. REFERENCES

COAST GUARD DRAWINGS

None

COAST GUARD PUBLICATIONS

Surface Forces Logistics Center Standard Specification 5550 (SFLC Std Spec 5550), 2022, Fire Prevention and Response

OTHER REFERENCES

MIL-C-24757, Nov 1990, Cloth, Fiberglass, Coated

3. REQUIREMENTS

3.1 Fire Plan. The Contractor must develop and implement a written fire plan in accordance with Paragraph 3.1 of SFLC Std Spec 5550, including Paragraph 3.1.3.

3. 1.1 Fire Prevention Responsible Party. The Contractor must appoint a Fire Prevention Responsible Party (FPRP) in accordance with Paragraph 3.1.4 of SFLC Std Spec 5550.

3.1.1.1. Any item in SFLC Std Spec 5550 that requires FPRP approval, also requires COR

approval.

3.1.1.2. The Contractor must designate the FPRP in the Fire Plan and submit a CFR if the designated FPRP changes.

3.1.1.3. In addition to responsibilities listed in SFLC Std Spec 5550, the FPRP is responsible for the following tasks:

- Conduct all inspections per paragraph 3.7 of this work item. The FPRP may designate a representative to conduct these inspections on their behalf.
- Ensuring that contractor employees and sub-contractors understand the Fire Plan and all other requirements of this work item. This includes (but is not limited to) informing contractor/subcontractor employees of danger signals and egress procedures aboard the ship.

3.2 Fire Prevention and Response Conference. The Contractor must participate in the Fire Prevention and Response Conference as detailed in Paragraph 3.12 of SFLC Std Spec 5550.

3.2.1 At a minimum, the following personnel from the Contractor must attend the Fire Prevention and Response conference, the Fire Familiarization Tour and the Initial Inspection:

- Ship availability superintendent
- FPRP

3.2.2 The Fire Prevention and Response Conference, the Fire Responsibility Familiarization tour and the Initial Inspection must occur before the start of industrial work. Coordinate schedule with the COR.

3.2.3. If the work is being performed at the Contractor's facility, then the Contractor must invite their fire response personnel for the familiarization tour in accordance with Paragraph 3.12.2.1 of SFLC Standard Spec 5550.

NOTE

Requirements for the Initial Inspection are covered in Paragraph 3.7 of this work item

3.3 Fire Zones. The Contractor must comply with the fire zone requirements from Paragraph 3.2 of SFLC Std Spec 5550.

3.3.1 Paragraph 3.2.3 of SFLC Std Spec 5550 is only applicable if the requirements of Paragraph 3.2.2 of SFLC Std Spec 5550 cannot be accomplished.

3.3.2 All material boundaries must be treated as fire boundaries.

3.3.3 All fire curtains must meet the requirements of MIL-C-24757. Disregard the NFPA 105 requirement in Paragraph 3.2.2 of SFLC Std Spec 5550.

3.4 Inoperable Fittings Log. The Contractor must inform the COR via CFR of fittings that are blocked or made inoperable per Paragraph 3.3 of SFLC Std Spec 5550. The Contractor does not need to maintain a separate Inoperable Fittings Log.

3.5. Firefighting systems. The Contractor must maintain fire protection systems per Paragraph 3.4 of SFLC Std Spec 5550.

3.5.1 Contractor personnel are NOT authorized to operate fixed firefighting systems per Paragraph 3.4.6.6.1 of SFLC Std Spec 5550

3.5.2 The existing arrangement of AFFF equipment meets the requirements of Paragraph 3.4.11 of SFLC Std. Spec 5550. This paragraph is only applicable if the Contractor blocks or moves AFFF material or equipment.

3.5.3 The existing arrangement of portable fire extinguishers meets the 50-foot requirement of Paragraph 3.4.12.1 of SFLC Std Spec 5550. This paragraph is only applicable if the Contractor blocks or moves fire extinguishers.

3.6. Fire Alarm. The Contractor must comply with the requirements of Paragraph 3.7 of SFLC Std Spec 5550 if the fire alarm system will be manipulated. The “additional personnel” mentioned in Paragraph 3.7.1 of SFLC Std Spec 5550 must be provided by the Contractor.

3.7 Fire Prevention Inspections. The Contractor must conduct inspections in accordance with SFLC Std Spec 5550 Paragraph 3.11.

3.7.1 All inspections in paragraph 3.11 of SFLC Standard Spec 5550 must be conducted in the presence of a Coast Guard Inspector.

3.7.2 Disregard paragraph 3.11.1 of SFLC Std Spec 5550 and replace with the following:

Initial Inspection. The FPRP, along with the COR (or a designated representative), must conduct an initial inspection to evaluate potential fire hazards in all areas with scheduled work. This inspection must note the existing status of all items in Paragraph 3.11.2 of SFLC Standard Spec 5550. Submit the results of the initial inspection to the COR via a CFR. This inspection must occur before commencing industrial work.

4. NOTES

None