NAVSEA
STANDARD ITEM

FY-08

ITEM NO: 009-32
DATE: ***13 JUL 2006***
CATEGORY: II

1. SCOPE:

1.1 Title: Cleaning and Painting Requirements; accomplish

2. REFERENCES:

2.1 Standard Items

2.2 S9086-VD-STM-010/020/030/CH-631, Preservation of Ships in Service

2.3 29 CFR 1915, Occupational Safety and Health Standards for Shipyard Employment, Subparts C and Z

2.4 Systems and Specifications, ***SSPC*** Painting Manual, Volume 2

2.5 NACE Book of Standards

2.6 S6360-AG-MAN-010, Camouflage Manual for Surface Ship Concealment

2.7 ASTM D 4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

2.8 ISO 8502-3, Assessment of Dust on Steel Surfaces Prepared for Painting (Pressure Sensitive Tape Method)

2.9 S9086-CN-STM-020/CH-079, Damage Control - Practical Damage Control

2.10 S9086-VG-STM-010/CH-634, Deck Coverings

2.11 S9086-RK-STM-010/CH-505, Piping Systems

3. REQUIREMENTS:

3.1 General Preservation Requirements:

3.1.1 Consider marine coatings to contain heavy metals (e.g., lead, cadmium, or chromium), hexavalent chromium, crystalline silica and/or other toxic or hazardous substances.

3.1.2 Accomplish safety precautions as specified in 2.2, 2.3, and the work item/task order during surface preparation and the application or removal of marine coatings.

3.1.3 Blast Media:

3.1.3.1 Submit material certification of abrasive blast media conforming to MIL-A-22262 or A-A-1722 ***7 working days*** prior to blasting. The abrasive blast media must be listed on the Qualified Products List (QPL), or the contractor shall have written notification from NAVSEA indicating QPL approval. Exceptions are listed in 3.1.3.2 and 3.1.3.3.

3.1.3.2 Spongejet may be used as an alternative to obtain SSPC-SP 10 or SSPC-SP 11 cleanliness.

3.1.3.3 Recyclable ferrous metallic abrasive materials conforming to AB-3 of 2.4 may be used as an abrasive blast media for steel substrates. Cleanliness of recyclable ferrous metallic abrasive materials shall be measured and maintained in accordance with the requirements of AB-2 of 2.4.

3.1.3.4 For requirements specified in 3.1.3.3, submit one legible copy, in hard copy or electronic media, of the results of the quality control requirements of Paragraph 6 of AB-2 and quality assurance test required by Paragraph 5 of AB-3 of 2.4.

3.1.4 Abrasive blast steel and aluminum plates, shapes, and ferrous piping, equal to NACE 2/SSPC-SP 10 of 2.4, and 2.5, establishing a surface profile that meets the requirements of 3.10.6, and prime, prior to shipboard installations except in the areas where weld joints remain to be accomplished, or unless specified otherwise in the invoking work item or task order.

3.1.4.1 Non-ferrous piping, which is to be preserved shipboard, shall be hand tool (non-impact tools only) cleaned in accordance with SSPC-SP 2 of 2.4. Preservation of non-ferrous piping one inch in diameter or less does not require surface preparation.

3.1.5 For touch-up, disturbed, and/or inaccessible areas (***terms are clarified in 3.6***), the minimum surface preparation shall be that shown in Tables One through ***9***, except that an SSPC-SP 11 is acceptable for areas originally requiring a NACE 2/SSPC-SP 10 or NACE 5/SSPC-SP 12. ***For submarines this shall be determined by inspection and agreed to by the SUPERVISOR.***

3.1.6 Although spot repair, partial preservation, and full preservation are different in the proportions of area being preserved, each shall meet the requirements stated in this document as if full preservation were to be accomplished. Terms are clarified in 3.6.

3.1.7 Feather edges of well-adhered paint remaining after cleaning for all surface preparation methods. Feathering is explained in more detail in 3.6.8.

3.1.8 Clean insulation and lagging prior to painting; ensure such areas are free of foreign matter and contaminants that would prevent adherence of paint.

3.1.9 Clean and dry all prepared and previously painted surfaces; ensure such surfaces are free of foreign matter that will affect adherence of paint coatings. Inclusions such as dust and debris in the paint film shall be removed prior to the application of the next coat.

3.1.10 Record and restore existing painted labels, compartment designations, hull markings, and other painted information which will be removed or covered during cleaning and painting operations.

3.1.11 Install masking material for protection of equipment and items not to be painted during preservation. Shipboard items not to be painted are listed in 2.2. Remove masking material upon completion of final coating.

3.1.12 Unless otherwise specified, all paints and coatings that are qualified to performance specifications (MIL-PRF) are to be applied in accordance with the manufacturer's NAVSEA-approved ASTM F718 product data sheet. The dry film thickness (DFT) requirements stated herein take precedence over the NAVSEA-approved ASTM F718 data sheets if there is a conflict. The NAVSEA-approved ASTM F718 data sheets shall supersede any other manufacturer's ASTM F718 data sheets for that product, even if it is newer (more recent) than the NAVSEA-approved ASTM F718 data sheets. Copies of the NAVSEA-approved ASTM F718 data sheets are available from the National Surface Treatment Center (NST Center) website: http://www.nstcenter.com

3.1.13 ***Intentionally left blank.***

3.1.14 Store paint and nonskid system components in a cool, dry place. Do not expose to freezing temperatures or direct sunlight.

3.1.14.1 For paint storage, ambient temperature shall be maintained between 65 and 85 degrees Fahrenheit.

3.1.14.2 Nonskid system components shall be stored at a temperature of 70-80 degrees Fahrenheit for at least 24 hours prior to mixing. Prior to 24 hours, they shall ***meet the storage requirements of their NAVSEA-approved*** ASTM F718.

3.1.15 When applying paint, multiple coats shall be of contrasting colors, unless specifically stated otherwise in Tables one through ***9***.

3.1.16 When using multiple component (such as 2-part) coating systems (e.g. epoxies and polyurethanes), use of "partial kits" is prohibited

unless using verified proportioning equipment or other verified measuring equipment (gravimetric).

3.1.17 Cure time is dependent on temperature; products applied at lower temperatures will need more time to cure. This includes low temperature coatings.

3.1.18 For commercial underwater hull coating systems including anti-corrosive paints and anti-fouling paints, the manufacturer's primer must be used with its anti-fouling coating. No substitution is allowed. Successive coats of anti-corrosive paints shall be of a contrasting color. Coats of anti-fouling paints shall be of the colors stated in Tables One through 5.

3.1.19 Apply the first coat of MIL-PRF-24647 anti-fouling paint when the last coat of epoxy paint is still slightly tacky (as defined in 3.6.7) (approximately 4 to 6 hours after paint application) and in accordance with applicable ***NAVSEA-approved*** ASTM F718. If the epoxy is hard (usually 8 hours after application), apply a tack coat (explained in 3.6.1) of epoxy paint one to 2 mils wet film thickness (WFT) over previously painted surfaces. The tack coat shall be allowed to cure until tacky, then the next full coat of the system shall be applied.

3.1.20 Mix and apply ***all*** coatings in accordance with ***the product's NAVSEA-approved ASTM F718***, except for invoked requirements for surface preparation and Dry Film Thickness (DFT) as specified in Tables One through ***9***.

3.1.21 Boats and small craft that are embarked on surface ships or otherwise deployed should meet the camouflage requirements of 2.6.

3.1.22 Utilize water-based latex fire retardant paints in preference to chlorinated alkyd-based fire retardant paints ***in areas where condensation, high humidity, and temperatures below 50 degrees Fahrenheit are not expected during application and cure***. Such paints are available under MIL-PRF-24596.

3.1.23 Mix and apply the Navy Polyamide Epoxy MIL-DTL-24441 coatings in accordance with the following, except the DFT shall be as specified in Tables One through ***9***. The MIL-DTL-24441 coatings' mixing ratio is one-to-one by volume. The components of the various formulas are not interchangeable. Blend each component thoroughly prior to mixing the components. After mixing equal volumes of the 2 components, the mixture must be thoroughly stirred. For Type III only, the stand-in times listed below must be observed. There is no induction time for Type IV.

3.1.23.1 Stand-in time (induction time) for MIL-DTL-24441 is considered to be the time immediately following the mixing of the components A and B during which the critical reaction period of these components is initiated and is essential to the complete curing of the coating. During stand-in time, the mixture must be thoroughly stirred at least once every 20

minutes to avoid hot spots caused by localized overheating from the chemical reaction.

Surface Temperature at Job Site (Degrees Fahrenheit)	Stand-In Time in Hours
35 to 50	2 hours at 70 degrees Fahrenheit (paint temperature)
50 to 60	2 hours at job site temperature
60 to 70	One hour to 1-1/2 hours at job site temperature
70 ***to 90***	1/2 to one hour at job site temperature

3.1.23.2 For proper curing, the maximum application and cure temperature for MIL-DTL-24441 products shall be 90 degrees Fahrenheit (ambient and surface temperature).

3.1.24 Powder coating application may be used if approved by the TYCOM; otherwise use applicable Lines in Tables One through ***9***. TYCOM approval shall denote specific items or classes of items and applications. Powder coatings may match the color of the surrounding area or, if needed, may be overcoated with liquid paints. Powder coated items require near white metal blast, NACE 2/SSPC-SP 10, as minimum surface preparation. Any use of a chemical pretreatment (e.g., phosphate conversion coatings) requires approval by NAVSEA. ***QA checkpoints are still required for items that are powder coated.***

3.1.24.1 For exterior applications and interior dry applications of removable parts, powder coating ***shall meet*** MIL-PRF-24712.

3.1.24.2 For interior wet or immersion areas, powder coating ***shall meet*** MIL-PRF-23236 Type VIII.

3.1.24.3 Powder coatings are not practical for use on large components or ship structure. Any large-scale applications to ship structure require approval by NAVSEA.

3.1.24.4 Powder coating is not authorized for use on components, covers, or any parts to be installed in fresh water drain collection tanks aboard nuclear powered ships.

3.1.25 Peel and stick nonskid has been approved for use in limited areas, as designated in the individual work item.

3.1.26 Coatings used on interior spaces of submarines must be approved under the Submarine Atmosphere Control Program. For MIL-PRF-23236 Type VII coatings, only those listed in Note (8A) may be used for interior submarine areas.

3.1.27 For submarines, ensure that identified structural repair sites are not contaminated with paint overspray until repairs have been completed. Upon completion of structural repairs, the affected areas will be abrasive blasted to SSPC-SP-10 prior to paint application unless otherwise specified.

3.2 Stripe Coat Requirements:

3.2.1 For all areas where stripe coating is required, as denoted in Tables One through ***9***, apply stripe coat in accordance with applicable ***NAVSEA-approved*** ASTM F718 data sheet to edges, weld seams, welds of attachments and appendages, cutouts, corners, butts, foot/handholds (including inaccessible areas such as back side of piping, underside of I-beams), and other mounting hardware (non-flat surface). Stripe coat these areas after the previous full coat has dried. Stripe coating applied shall be neat in appearance, minimizing extra thickness applied to edges as well as streaks and drops of paint. The stripe coat shall encompass all edges as well as at least a one-inch border outside each edge and weld.

3.2.1.1 Each stripe coat shall be of the specified paint system and shall be a different color from both the paint over which it is being applied and the next coat in the system (if a product only comes in 2 colors, the stripe coat shall contrast with the color of the previous coat). Full coat inspection shall be conducted prior to stripe coat application.

3.3 Drying time of each coat shall be IAW ***NAVSEA-approved*** ASTM F718 unless ***otherwise specified*** in the following requirements:

3.3.1 Drying time between coats of a specified coating for potable and feedwater tanks shall be a minimum of 48 hours at a minimum temperature of 70 degrees Fahrenheit (substrate and ambient), using heated air if necessary to maintain temperature. Ventilation shall be sufficient to ensure continuous flow of air through the tanks with at least one complete air change every 4 hours. Mixing and stand-in times (induction times) shall be in accordance with manufacturer's instructions; stand-in times for MIL-DTL-24441 shall be in accordance with 3.1.23.1.

3.3.2 Following coating applications, potable and feedwater tanks shall be continuously ventilated with a minimum of one complete air change every 4 hours for at least 7 consecutive days prior to filling with water. During the ventilation period, maintain a minimum tank temperature of 70 degrees Fahrenheit (substrate and ambient). Verify and document daily that ventilation is properly installed and running.

3.3.2.1 Freshly painted potable water tanks shall be filled with potable water and emptied at least twice to ensure tank cleanliness.

3.3.3 Prior to application of any solvent-based alkyd coating, such as MIL-PRF-24635, over an epoxy coating, allow the epoxy to dry until it is

no longer tacky (as defined in 3.6.7). It shall be dry to the touch but not fully cured before overcoating with any solvent-based alkyd coating.

3.3.4 Prior to application of any water-based coating, such as MIL-PRF-24596, over an epoxy coating, allow the epoxy to dry for at least 16 hours.

3.4 Overcoating of MIL-DTL-24441 with MIL-DTL-24441:

3.4.1 If less than 7 days has elapsed since the application of the prior coat, the next coat may be applied after visual inspection to confirm the absence of grease, dirt, salts, or other surface contaminants. If surface contamination is suspected as a result of visual inspection or for other reasons, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. The next coat of MIL-DTL-24441 shall be applied after surfaces are completely dried.

3.4.2 If more than 7 days but less than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. Ensure the surface has fully dried, then apply a tack coat (one to 2 mils WFT) of the last coat applied or Formula 150. The tack coat (as defined in 3.6.1) shall be allowed to cure (dry) until tacky (as defined in 3.6.7), then apply the next full coat of the system. This condition can only be met one time during the painting system application.

3.4.3 If more than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. After allowing the surface to dry, the surface shall be lightly abraded to degloss the epoxy, using a brush-off abrasive blast (preferred), power sanding, or hand sanding using 80-120 grit, then apply the next full coat of the system.

3.5 Overcoating of Non-MIL-DTL-24441 Epoxy Coatings:

3.5.1 Follow the manufacturer's instructions for the allowable overcoat window, not to exceed 30 days. The 30-day maximum may be extended beyond 30 days if specifically approved in writing by NAVSEA. Where the base coat and topcoat are provided from different manufacturers, the term "manufacturer" refers to the manufacturer of the base coat. Application of a tack coat shall not restart the 30-day window.

3.5.1.1 If either the manufacturer's instructions or the 30-day window (or a specific extension approved by NAVSEA) has been exceeded, the coating shall be reactivated by following the manufacturer's instructions for reactivating the surface.

3.6 Clarification of Terms:

3.6.1 A tack coat is defined as a layer of paint with a reduced film thickness (e.g., 1-2 mils vice 5 mils); this does not imply that adding thinner is acceptable.

3.6.2 Touch-up is defined differently within this Standard Item between surface ships and submarines.

3.6.2.1 Touch-up is defined within this Standard Item ***for surface ships*** as preservation operations on cumulative surface areas less than one percent of the total area (e.g., bilge, tank, space, etc.) being preserved, with no individual area greater than 10 square feet. Included under touch-up operations are new and disturbed areas of less than 10 square feet. The ***documentation*** requirements of 3.7 and 3.8 are waived for these touch-up areas. The requirements of 3.10.1, 3.10.2, 3.10.6, 3.10.7, 3.10.8, and 3.10.10 shall be verified by the accomplishing activity as (I) inspections ***for critical coated areas and (V) inspections for non-critical coated areas*** prior to coating applications. This waiver does not apply to potable or feedwater tanks.

3.6.2.2 Touch-up is defined within this Standard Item for submarines as preservation operations on cumulative surface areas less than one percent of the total area (e.g., bilge, tank, space, etc.) being preserved, with no individual area greater than 4 square feet. Included under touch-up operations are new and disturbed areas of less than 4 square feet. The documentation requirements of 3.7 and 3.8.1 are replaced with Appendix 10 for these touch-up areas (3.8.2 is still required). The requirements of 3.10.1, 3.10.2, 3.10.6, 3.10.7, 3.10.8, and 3.10.10 shall be verified by the accomplishing activity as (I) inspections for critical coated areas and (V) inspections for non-critical coated areas prior to coating applications. This waiver does not apply to potable or feedwater tanks.

3.6.3 Disturbed areas are defined as any surface that requires cleaning and/or painting due to existing paint finish being damaged in the accomplishment of work specified by the work item or task order.

3.6.3.1 Closure plates/hull accesses and their associated welds will not be considered disturbed surfaces and shall be cleaned***, prepared,*** and painted in accordance with the applicable Tables. Deviations from the requirements may be authorized by the SUPERVISOR based on size, location, application, or severity of condition of the coating system being applied.

3.6.3.2 The word "new" in "new and disturbed surfaces" refers to all material installed on the ship by the contractor regardless of source.

3.6.4 Spot repair is defined as a small, localized area being preserved that is greater in size than what is defined as touch-up.

3.6.5 Partial preservation is defined as preservation of a section of an entire space or location.

3.6.6 Full preservation is defined as preservation of an entire space or location.

3.6.7 Tacky is defined as that curing (drying) stage when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger.

3.6.8 Feathering is used for transition of applying a fresh coating system to an area with an intact coating system that is not removed. To do this, visible areas of defective old paint shall be removed until an area of completely intact and adhering paint is attained around the defective area by feathering (tapering) the edges of tightly adhering old paint at an approximate 30 degree slope into the newly prepared bare metal surface thus preventing application of new paint over loose or cracked paint.

3.7 ***The following ship structural surfaces are defined as critical coated areas***:

SURFACES	TYPE OF SUBSTRATE
MK41 VLS launcher top and base	All
Underwater hull surfaces (including capastic shields)	All
Cofferdams	Steel and aluminum
Freeboard	Steel and aluminum
Hangar, flight, catapult, and vertical replenishment decks	Steel and aluminum
CV and CVN flight deck landing areas	Steel and aluminum
RAST track trough	Steel and aluminum
Well deck overheads	Steel and aluminum
Wet space decks (see Note 4.1)	Steel and aluminum
Surface ship bilges	Steel and aluminum
Interior surfaces of intake vent plenums, defined as combustion air intakes (gas turbine, diesel, and steam) and other vent system intake plenums with openings greater than 7 square feet	Steel and aluminum
Uptake spaces	Steel and aluminum
AFFF station decks and coaming	Steel and aluminum
Tanks (including sumps ***and covers***)	Steel and aluminum
Voids	Steel and aluminum
Chain lockers	Steel and aluminum
All Recesses on submarines	***Steel and aluminum***
Submarine Sail and Superstructure (Fairwater)	***Steel and aluminum***
Aircraft Launch and Recovery Equipment (ALRE) system areas addressed in Table Notes (8) and (35)	***Steel***

3.7.1 In addition to the quality management system documentation requirements for (G)-points identified in 3.5.3.1 of 009-04 of 2.1, record and maintain in-process records on ***QA Checklist Form Appendices*** as blasting,

painting, nonskid, inspections, and tests are being accomplished. ***QA Checklist Form Appendices are available at http://www.nstcenter.com.***

3.7.1.1 Submit one legible copy, in hard copy or electronic media, of the applicable appendices with required documented information of evolutions accomplished from the acceptance of the (G)-point to the SUPERVISOR. Submit the documentation within 24 hours or prior to the next (G)-Point, whichever is sooner. All records shall include 3.7.1.2 through 3.7.1.11.

3.7.1.2 Ambient and substrate surface temperatures, relative humidity, and dew point during preservation process (***QA Checklist Form*** Appendix 1)

3.7.1.3 Cleaning/degreasing prior to surface preparation inspection results (***QA Checklist Form*** Appendix 2)

3.7.1.4 Surface profile readings and surface preparation method, including name of abrasive and QPL 22262 revision number from which the product was purchased, or copy of NAVSEA product approval letter. (***QA Checklist Form*** Appendix 3)

3.7.1.5 Surface conductivity test results (***QA Checklist Form*** Appendix 4)

3.7.1.6 Surface cleanliness test results for dust (***QA Checklist Form*** Appendix 5)

3.7.1.7 Name of paint/nonskid, manufacturer, batch number, and date of manufacture and expiration (***QA Checklist Form*** Appendix 6)

3.7.1.8 Name and type of spray equipment utilized (***QA Checklist Form*** Appendix 6)

3.7.1.9 Elapsed time between coats (***QA Checklist Form*** Appendix 6)

3.7.1.10 Dry film thickness (DFT) measurements (***QA Checklist Form*** Appendix 7) and/or wet film thickness (WFT) measurements (***QA Checklist Form*** Appendix 8)

3.7.1.11 ***Monitor the storage temperature of paint and nonskid over a 24-hour period prior to use and document the minimum and maximum temperatures on QA Checklist Form Appendix 1.***

3.7.2 Submit one legible copy, in hard copy or electronic media, of recorded in-process information on QA Checklist Forms to the SUPERVISOR within 72 hours of completion of preservation of each separate location ***listed*** in the invoking work item or task order.

3.8 Determine the type of surface preparation required and coating system options that are available for use in accomplishing the work.

3.8.1 For areas listed in 3.7, submit one legible copy, in hard copy or electronic media of Coatings Application Product Summary (CAPS) SHEET (***QA Checklist Form*** Appendix 9), to the SUPERVISOR for approval 7 working days prior to starting the preservation process. The submittal shall include all the information identified in ***QA Checklist Form*** Appendix 9. The approved CAPSHEET shall be at the worksite throughout the preservation process.

3.8.1.1 Submit one legible copy, in hard copy or electronic media, of Shipbuilders and Marine Paints and Coatings Product/Procedure Data Sheet (***NAVSEA-approved*** ASTM F718 ***as defined in 3.1.12***), and Material Safety Data Sheet (MSDS) for each coating used to the SUPERVISOR as part of Appendix 9.

3.8.2 For areas listed in 3.7, submit one legible copy, in hard copy or electronic media ***7 working days prior to starting the preservation process***, of original manufacturer's certificate of compliance and material conformance test data in accordance with Section 11 of 2.2.

3.9 Maintain the following certifications for accomplishing preservation operations to areas as listed in 3.7.

3.9.1 Painters and coating inspectors shall be certified in accordance with Section 11 of 2.2.

3.9.2 Coating Applicators performing preservation shall be certified in accordance with QP 1 of 2.4.

3.9.3 Plural Component Pump Tenders and Coating Applicators shall be certified in accordance with SSPC ***C-14*** or NAVSEA 05M-approved equivalent certifications. For equivalent certifications, a copy of the NAVSEA approval letter shall be maintained by the contractor.

3.9.4 Blasters shall be certified in accordance with SSPC ***C-7*** or NAVSEA 05M-approved equivalent, and Section 11 of 2.2. For equivalent certifications, a copy of the NAVSEA approval letter shall be maintained by the contractor.

3.10 For all coating systems except nonskid, accomplish preservation operations in accordance with the following. For nonskid system application, refer to 3.11.

(V) "ENVIRONMENTAL READINGS"

3.10.1 For coatings, ***record*** ambient and substrate surface temperatures, relative humidity, and dew point from conditions on-site, in close proximity to the structure being coated, for all areas listed in Tables One through ***9***, to verify that they meet the requirements of ***3.10.1.4***.

3.10.1.1 These environmental readings shall be taken from 12 hours prior to, to 48 hours after, the application of a coat of paint. For potable and feedwater tanks, environmental readings shall be taken from the start of surface preparation to 7 days after application of the final coat.

3.10.1.2 The preferred method of measurement is using a data logger (Veriteq Instruments, Inc., Model No. KT-2000-NEI or equivalent). If a data logger is used, it shall collect data at a minimum of every 5 minutes. ***M***anual readings shall be taken once every ***12*** hours and at every evolution involving (G)-points. ***For areas listed in 3.7, manual readings shall be documented on QA Checklist Form Appendix 1.***

3.10.1.3 If a data logger is not used, environmental readings shall be manually taken every 4 hours and at every evolution involving (G)-points. ***For areas listed in 3.7, readings shall be documented on QA Checklist Form Appendix 1.***

3.10.1.4 For areas listed in 3.7***, coatings*** shall be applied only when the temperature of the prepared substrate is greater than 50 degrees Fahrenheit and a minimum of 5 degrees Fahrenheit above the dew point. ***The maximum relative humidity shall be 85 percent unless otherwise stated within the Notes of Tables one through 9, and as follows:***

3.10.1.5 MIL-PRF-23236, Type VII, Class 17 products are exempt from dew point and relative humidity requirements. For these products, dew point and relative humidity do not need to be recorded on QA Checklist Forms.

3.10.1.6 The only products that may be applied below 50 degrees Fahrenheit are those specified in the Tables and Notes for use below 50 degrees Fahrenheit.

(I) or (I)(G) "CLEANLINESS" (See 4.4)

3.10.2 Accomplish degreasing/cleaning prior to surface preparation to ensure that the surface is free of contaminants, such as sea salts, rust, dust, mud, marine growth, grease, oil, and other petroleum products, in accordance with SSPC-SP 1 of 2.4. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 2.

3.10.2.1 Inspect the surface a maximum of 4 hours prior to start of coating removal to ensure accomplishment of SSPC-SP 1. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 2.

3.10.3 Except for tanks, surface preparation by abrasive blasting or by Spongejet is prohibited on submarine interior surfaces.

3.10.4 Accomplish coating removal and establish the required surface profile in accordance with the requirements listed in Tables One through ***9*** as identified in the invoking work item/task order.

3.10.4.1 Spongejet may not establish a sufficient surface profile. If this method is employed and the profile is insufficient to meet the requirements, the contractor shall establish a sufficient surface profile.

3.10.4.2 Waterjetting will not establish a surface profile. If this method is selected by the contractor and a surface profile does not exist or is insufficient to meet the requirements, the contractor shall establish a sufficient surface profile.

3.10.5 Limit the square footage of surfaces being prepared for preservation to an area that can be coated prior to the occurrence of flash rusting and/or oxidation. Remove any flash rust prior to painting, except as follows:

3.10.5.1 Surfaces cleaned by waterjetting shall meet the applicable NACE/SSPC Standard for flash rust.

3.10.5.2 The water used in waterjetting shall not include detergents or inhibitors without written approval from the coating manufacturer and the SUPERVISOR.

(I) or (I)(G) "SURFACE PROFILE"(See 4.4)

3.10.6 ***One*** profile reading shall be taken for ***every 200 square feet for*** the first 1,000 square feet; for each additional 1,000 square feet, 2 profile readings shall be taken. Three (3) individual tapes result in one (1) profile reading. Profile readings shall be taken in accordance with Method C of 2.7, using profile tape suitable to read subject profile, i.e., ***coarse*** to extra-coarse plus. ***If areas are found to be greater than 5 mils, use Method B of 2.7 in those areas to determine existing profile.*** For areas listed in 3.7, document surface profile on ***QA Checklist Form*** Appendix 3.

3.10.6.1 Following blasting or waterjetting operations, surface peak-to-valley profile must be checked. Each profile reading shall be between 2 and 4 mils, with no individual tape reading less than one mil or more than 5 mils. If such profile is not present, contractor shall establish the proper profile.

3.10.6.2 Following power tool cleaning to SSPC-SP 11 of 2.4, surface profile shall be checked. Profile readings shall be 2 mils minimum for areas listed in 3.7 and one mil minimum for all other areas where accessible (inaccessible areas must be determined by inspection and agreed to by the SUPERVISOR).

3.10.6.3 When surface profile requirements of the manufacturer's instructions are greater (higher numeric values) than that specified in this item, the manufacturer’s surface profile requirements shall supersede this item.

3.10.6.4 Avoid excessive power wire brushing or excessive grinding/sanding which results in a polished surface.

3.10.6.5 Conversely, excessive use of mechanical tools (grinders, sanders, chippers, etc.) must be minimized to avoid metal loss. Overly aggressive blasting which causes metal thickness loss over the amount required for surface profile should also be avoided. Excessive depth of profile can cause problems with poor coating performance. A greater than recommended surface profile requires a paint film be applied to totally cover the profile to prevent pinpoint or flash corrosion. The increase in paint film thickness also increases the susceptibility of solvent entrapment, causing blistering and premature failure of the coating.

3.10.6.6 Due to the potential for excessive metal loss, for SSN21 and SSN774 Class submarines, only the following power tools may be used to obtain an SSPC-SP-11 surface: needle guns and rotopeens. On submarines, any areas of potential metal loss by corrosion or mechanical means shall be documented and reported to the Supervisor.

(I)(G) "CONDUCTIVITY MEASUREMENT"

3.10.7 Following coating removal, accomplish conductivity measurements for surfaces listed in 3.7.

3.10.7.1 Conduct a visual inspection within 4 hours prior to application of each coat of paint. If evidence of contamination of the surface exists, accomplish the requirements of 3.10.7.2.

3.10.7.2 Accomplish surface conductivity checks using available field or laboratory test equipment on the freshly prepared surface. Five determinations shall be conducted every 1,000 square feet. Areas less than 1,000 square feet shall have 5 determinations made. For immersed applications, such as tanks and bilges, conductivity measurements shall not exceed 30 micro siemens/cm. For non-immersed applications, conductivity measurements shall not exceed 70 micro siemens/cm. Samples shall be collected using the Soluble Salt Conductivity Measurement According to Bresle Method or approved equivalent. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 4.

3.10.7.3 If conductivity measurements exceed the respective values, water wash (3000–5000 PSI) the affected areas with fresh water (maximum conductivity of 200 micro siemens/cm). Dry the affected areas and remove all standing water. Accomplish surface conductivity checks on affected areas. Repeat step until satisfactory levels are obtained. Perform conductivity measurements in accordance with 3.10.7 and document on ***QA Checklist Form*** Appendix 4.

(I) or (I)(G) "SURFACE PREPARATION" (See 4.4)

3.10.8 Verify surface preparation for the coating systems specified in the work item/task order and Tables One through ***9*** are in accordance with 2.4 and 2.5. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 3.

3.10.8.1 Surface cleanliness for dust shall be accomplished for the underwater hull and documented on ***QA Checklist Form*** Appendix 5. Surface cleanliness for dust shall meet Rating 2, Class 2, of 2.8. Five individual readings shall be taken for the first 1,000 square feet (with a minimum of 5 ***tape*** readings taken for areas less than 1,000 square feet); for each additional 1,000 square feet, 2 ***tape*** readings shall be taken. ***The tape reading requirement is waived if the surface was prepared using UHP (ultra high pressure) waterjetting only and the primer is applied within 6 hours of completion of surface preparation.***

3.10.9 Coating systems shall be applied in accordance with this NAVSEA Standard Item ***and applicable NAVSEA-approved*** ASTM F718***s as defined in 3.1.12***.

3.10.9.1 For preservation of areas not listed in Tables One through 9, see the Tables in Section 1 of 2.2.

3.10.9.2 Paints shall not be thinned.

(I) or (I)(G) "COATING INSPECTION FOR EACH PAINT COAT" (Consists of Dry Film Thickness, Holidays, and Cleanliness) (See 4.4)

3.10.10 Inspect each Prime, Intermediate, Stripe, Build, Tack, and Top Coat as follows:

3.10.10.1 Accomplish DFT measurements of each coat applied for the coating systems listed in Tables One through ***9***. This excludes any stripe coats. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 7.

3.10.10.2 ***Accomplish*** a visual holiday check on each coat of the system for areas listed in 3.7 and document on ***QA Checklist Form*** Appendix 7. Any holiday found shall be identified and touched up.

3.10.10.3 Accomplish a visual inspection for surface cleanliness. If evidence of contamination exists, accomplish degreasing/cleaning a maximum of 4 hours prior to application of next coat of paint to ensure removal of surface contaminants. For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 2 and 7.

3.10.10.4 Accomplish a visual inspection for chloride contamination for areas listed in 3.7. If evidence of chloride contamination exists, accomplish requirement of 3.10.7 a maximum of 4 hours prior to application of next coat of paint to ensure removal of surface contaminants. ***For areas listed in 3.7, d***ocument on ***QA Checklist Form*** Appendix 7.

3.10.11 For Dry Film Thickness (DFT) readings required in 3.10.10.1, DFT readings for each coat shall be taken in accordance with Method PA 2 of 2.4. When measuring full coats to determine total system thicknesses denoted in Tables One through ***9***, DFT readings shall not be taken in areas where stripe coatings have been applied.

3.10.11.1 WFT readings are required in lieu of DFT readings for any coat that must be in a tacky state (as defined in 3.6.7) when the next coat is applied and for non-metallic surfaces. ***For metallic surfaces, t***he number of WFT ***spot*** readings shall ***be 2 readings per 1,000 sq ft. For non-metallic surfaces, the number of WFT spot readings shall*** equal the number of DFT readings that would have been taken. WFT equals DFT divided by percent solids by volume (when percent solids by volume is expressed as a decimal, i.e., 60 percent equals 0.60). For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 8.

3.10.11.2 Apply an additional coat of any single coat of a multiple coat system when that coat measures less than its specified DFT. DFT of each coat, including an additional coat if applied, shall not exceed the specified maximum thickness for each coat as specified in Tables One through ***9***. If an additional coat is required, all QA requirements shall be accomplished for the additional coat.

3.10.11.3 During paint application, a WFT gage shall be used to verify the application of proper paint thickness for the primer coat of all coating systems listed in Tables One through ***9. WFT r***eadings shall be taken to confirm this, but need not be recorded.

3.11 Accomplish preservation operations for nonskid systems in accordance with the following:

(V) "ENVIRONMENTAL READINGS"

3.11.1 Accomplish the requirements of 3.10.1 (environmental) with the following additions:

3.11.1.1 Record ambient and substrate surface temperatures, relative humidity, and dew point readings at one-hour intervals during actual surface preparation and nonskid system application.

3.11.1.2 Do not apply ***sprayed components of*** nonskid systems when sustained winds exceed 15 MPH.

3.11.1.3 Unless the applicable ***NAVSEA-approved*** ASTM F718 is more stringent, ambient air temperature shall be 55-100 degrees Fahrenheit, deck temperature for primer application shall be 40-120 degrees Fahrenheit, and deck temperature for nonskid application shall be 40-110 degrees Fahrenheit. Deck temperature shall be a minimum of 5 degrees Fahrenheit

above the dew point for nonskid system application. ***For submarines, if MIL-DTL-24441 is used, the requirements of 3.1.23.2 shall also be met.***

3.11.2 Accomplish the requirements of 3.10.2 through 3.10.4 with the following additions:

3.11.2.1 If cleaning is performed via solvent wiping, after solvent wiping, the deck shall be allowed to dry for a minimum of 2 hours at ambient conditions before application of any primer. No solvent shall be present on deck surfaces prior to proceeding with the next process step.

3.11.2.2 When a solvent wipe is performed, annotate Appendix 2 with type of solvent and time allowed to dry.

(I) or (I)(G) "SURFACE PROFILE" (See 4.4)

3.11.3 Following blasting or waterjetting operations, surface peak-to-valley profile shall be checked. For each area of preparation, ***one*** profile reading shall be taken every 100 sq ft for the first 500 sq ft. ***Three (3) individual tapes result in one profile reading.*** If the profile readings are consistent, only one profile reading shall be taken for every 1,000 sq ft remaining. The anchor tooth profile for nonskid shall be 3 to 4.5 mils. If such profile is not present, contractor shall establish proper profile. Profile readings shall be taken in accordance with Method C of 2.7, using profile tape suitable to read subject profile, i.e., ***coarse*** to extra-coarse plus. ***If areas are found to be greater than 5 mils, use Method B of 2.7 in those areas to determine existing profile.*** For areas listed in 3.7, document on ***QA Checklist Form*** Appendix 3.

3.11.3.1 For nonskid areas that abrasive blast equipment or waterjet equipment cannot access, substrate shall be prepared to SSPC-SP 11, except that minimum profile shall be 2 mils where accessible.

3.11.4 Accomplish the requirements of 3.10.7 for conductivity measurements.

3.11.5 Accomplish the requirements of 3.10.8 for surface preparation in accordance with 2.10.

3.11.5.1 Surface cleanliness for dust shall be accomplished for nonskid flight decks and documented on ***QA Checklist Form*** Appendix 5. Surface cleanliness for dust shall meet Rating 2, Class 2, of 2.8. Three individual readings shall be taken every 100 sq ft for the first 500 sq ft. If the tape readings are consistent, only one tape reading shall be taken for every 1,000 sq ft remaining. ***The tape reading requirement is waived if the surface was prepared using UHP (ultra high pressure) waterjetting only and the primer is applied within 6 hours of completion of surface preparation.***

3.11.6 Nonskid systems shall be applied in accordance with the applicable Tables.

3.11.7 Accomplish the requirements of 3.2 for stripe coat with the exception that stripe coat may precede prime coat.

3.11.7.1 For overcoating of stripe coat or stripe coating of the primer coat, refer to the applicable ***NAVSEA-approved*** ASTM F718.

3.11.8 Nonskid application shall occur within 36 hours of primer application.

3.11.8.1 If nonskid application occurs within 36 to 72 hours after primer application, the primer coat shall be solvent wiped.

3.11.8.2 If nonskid application occurs within 3 to 7 days after primer application, the primer coat shall be solvent wiped, then lightly abraded, solvent wiped again, and a tack coat (one to 2 mils) of primer shall be applied.

3.11.8.3 If the primer coat is not overcoated with nonskid within 7 days of primer application, the primer shall be removed and the surface preparation repeated.

3.11.8.4 Aircraft carrier landing areas not overcoated with nonskid within 72 hours of primer application shall have surface preparation repeated.

3.11.9 Accomplish the requirements of 3.10.***10 and 3.10.11*** for coating inspection of nonskid primer (full and stripe coats).

(I) or (I) (G) “NONSKID SPREAD RATE AND HOLIDAY INSPECTION” (See 4.4)

3.11.10 Accomplish the requirements of 634-3.35.6 Paragraph ***5 of 2.10*** for spread rate and visual holiday inspection of nonskid on ***QA Checklist Form*** Appendix 7.

3.11.11 Inspect the location and color of required visual landing aid (VLA) markings in accordance with Naval Air Warfare Center Aircraft Division (NAWC-AD) Class Guidance Drawings, Air Capable Ship Aviation Facilities Bulletin, Amphibious Assault Ship Aviation Facilities Bulletin, Shipboard Aviation Resume (NAEC-ENG-7576), VLA General Service Bulletin No. 8 (latest revision) or by contacting the local NAWC (CAFSU/ASIR) Field Office.

4. NOTES:

4.1 Wet space decks listed in 3.7 include sanitary spaces (washrooms, water closets, and showers), food service spaces (galley, scullery, butcher shop, bakery, meat prep rooms, and food service line), and trash compactor rooms.

4.2 Total DFT encountered during removal may exceed specified Table thicknesses.

4.3 Total removal of ablative coating is not required. ***An ablative copper AF coating system shall not be removed by blasting prior to its specified service life unless it is blistered, peeling, or otherwise damaged beyond repair. Stable and intact ablative AF coatings shall be retained and over-coated. The total film thickness of the combined retained and freshly applied paint shall comply with Table 1/Table 6. When the work specification calls for over-coating of retained intact ablative copper AF coating, AF surfaces shall be washed down with fresh water at 2000 psi as the vessel comes out of the water, in order to prevent slime and oxidized paint from drying on the hull and inhibiting leaching of the paint when the ship is returned to the water. The surface shall be roughened with an abrasive and cleaned and dried before new paint is applied. Apply any AC paint to areas in need of repairs and then overcoat with the identical AF system.*** The work item or task order will specify the degree of removal.

4.4 The paragraphs referencing this note are considered an (I)(G) if the inspection/test is on a critical surface as listed in 3.7. If the inspection/test is not on a surface listed in 3.7, then the paragraph is considered an (I). These inspection point requirements also apply to build-up coats to obtain proper millage.

4.5 Refer to 009-03 of 2.1 as appropriate for requirements concerning potential exposure to toxic or hazardous substances and hazardous operations.

4.6 Structural requirements of Notes (23) and (24) will be addressed by the invoking work item or task order.

4.7 The Contractor may use environmental enclosures to control environmental conditions.

4.8 Preservation Process Instructions (PPIs) provide detailed instructions and procedures for specific ship preservation evolutions to include safety precautions, surface preparation, selection of appropriate coating systems, and third-party quality assurance check points. See new Section 12 of 2.2 for details.

4.9 SSPC training information can be found at http://www.sspc.org.

4.10 Preservation system repairs are an Unrestricted Operations (URO) Maintenance Requirement Cards (MRC) program attribute.

4.10.1 The Unrestricted Operations (URO) Maintenance Requirement Cards (MRC) program was developed by NAVSEA to monitor specific areas of interest to determine if the conditions of these areas are suitable for continued unrestricted operations. Maintaining the protective capability of the coating system is critical to maintaining structural integrity during the periods between inspections. For this reason, complying with requirements for coating system application for all aspects of the preservation process is essential. Other systems that impact the URO MRC program are Special Hull Treatment (SHT) application process, including Mold-In-Place (MIP),

maintenance of cathodic protection systems (Impressed Current Cathodic Protection (ICCP) and anodes) and installation of various types of tiles (acoustic, damping, etc).

4.10.1.1 Substrate preparation is not authorized/covered in this Standard Item for damping tile, acoustic tile, Special Hull Treatment (SHT), and Mold-In-Place (MIP), vertical launch system (VLS) bathtub area, thin line towed array (TLTA), bow domes, interior, and retractable bow plane recesses on submarines.

4.10.2 Preservation work in submarine tanks and enclosed spaces is usually scheduled to occur when the tanks are opened and entered to perform URO MRC structural inspections. Any time a tank is entered, if the scheduled URO MRC 003 structural inspection is not being performed, the government will be performing a structural visual examination.

4.10.3 Any URO MRC item being blasted and painted will have a URO MRC hull survey inspection performed by the government prior to blasting and again prior to repainting.

4.11 Table One is for ***surface ship*** underwater hull areas. Table 2 is for ***surface ship*** exterior areas. Table 3 is for ***surface ship*** interior spaces. Table 4 is for ***surface ship*** tanks and voids. Table 5 is for ***surface ship*** miscellaneous areas. ***Table 6 is for submarine exterior hull areas. Table 7 is for submarine interior areas. Table 8 is for submarine tanks and voids. Table 9 is for submarine miscellaneous areas.***

NOTES OF TABLES ONE THROUGH 5 ***FOR SURFACE SHIPS***

(1) Use Sherwin-Williams P23RQ62/P23VQ80 in lieu of P23RQ82/P23VQ80 and use P23AQ61/P23VQ80 in lieu of P23AQ81/P23VQ80 for cold weather applications below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(2) Boottop - The boottopping is defined as the black area from minimum load waterline at which the ship is expected to operate to 12 inches above the maximum load waterline. The black paint is an anti-fouling paint conforming to MIL-PRF-24647. Haze gray shall be carried to the black anti-fouling paint that marks the upper boottop paint. Do not apply the black anti-fouling paint over haze gray MIL-PRF-24635.

(3) Ameron Amercoat 235 can be used for cold weather application below 40 degrees Fahrenheit. Apply at 5 mils DFT (minimum) per coat. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(4) Use International FCA 321 in lieu of FPA 327, or KHA414 in lieu of KHA062, for cold weather application below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(5) Use Hempel Hempadur 4514U in lieu of 4515***0*** for cold weather applications below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(6) A minimum of 24 hours drying time shall be allowed after last coat prior to undocking.

(7) To ensure a continuous primer base, areas adjacent to those being coated with proprietary primer and nonskid listed on QPL's for MIL-PRF-24667 shall be coated with the same primer and compatible topcoat.

(8) These systems shall also be invoked for catapult wing voids and catapult exhaust blowdown trunks.

(9) DOD-E-24607, chlorinated alkyd, may also be used. MIL-PRF-24596, Type I, Grade C, Classes 1 and 2, or DOD-E-24607 must be used if surface and ambient temperature are less than 50 degrees Fahrenheit.

(10) The "inner shield" is defined as the portion of the capastic shield that extends 3 ft. from the anode in all directions. The "outer shield" is defined as the portion of the capastic shield from the inner shield to a distance of 6 ft. from the anode. Repair of the inner shield area is required when total deteriorated inner shield surface area is from 0 to 2 percent, and no single spot is greater than one square foot. Repair of the outer shield area is required when total deteriorated outer shield surface area is from 0 to 10 percent, and no single spot is greater than one square foot. Replacement (new installation) of the

entire capastic shield is required when either of the above criteria is exceeded (damage to the inner shield is greater than 2 percent, OR damage to the outer shield is greater than 10 percent, OR any single spot damage is greater than one square foot).

(11) The following steps shall be used for repair/replacement of capastic shields. Ensure QA checkpoints are conducted in accordance with 3.7.

a. Protect surrounding area from damage. Mask anode surfaces with heavy cardboard or plywood.

b. Abrasive blast.

c. For repair, areas of undamaged capastic shall be roughened and feathered into the bare metal areas to provide a profile for adhesion of the new capastic. Feather edges at least 1 inch using power tools or hand sanding. To prevent fracturing of shield, do not feather using abrasive blasting.

d. The capastic material shall be mixed, applied, and cured in accordance with manufacturer’s instructions.

e. The capastic should be faired in and made smooth from the anode for a distance of at least 10 inches to minimize hull turbulence.

f. The anti-corrosive shall be applied when the capastic is in a tack-free state. If the capastic has cured, sanding shall be accomplished to smooth any rough areas and to degloss the surface for the anti-corrosive to be applied over it.

g. During visual inspection, ensure anode surfaces are undamaged and free of paint and capastic.

h. The anode should remain covered with heavy cardboard or plywood to prevent damage or contamination by the ship’s underwater hull coating system until just before undocking.

(12) These systems may also be invoked for preservation of decks in spaces that are prone to wear and do not receive deck covering.

(13) Anchors below lower boottopping limit shall be painted in accordance with normal underwater hull anti-corrosion/anti-fouling system.

(14) For MCM and MHC ships, use black walnut shells for abrasive blast media.

(15) Anchor chain and detachable links shall be marked and color-coded in accordance with NSTM Chapter 581 unless otherwise directed by the work item or task order.

(16) Apply one mist coat (1-2 mils) of Ameron PSX 700 after blast and prior to remaining coats where invoking work item or task order requires anchor chain inspections prior to preservation.

(17) Colors shown in Tables 631-8-13 and 631-8-14 of 2.2 shall be specified by TYCOM or ship's Commanding Officer in accordance with ***Paragraph*** 631-8.23.4 ***of 2.2***.

(18) Restore each compartment marking in accordance with 2.9 and 2.11.

(19) MIL-PRF-24667 nonskid systems shall be applied as complete systems (primer, intermediate coat when MIL-PRF-24667, Type III, coatings are invoked, nonskid, and color topping) from the same manufacturer except for the color topping. When a manufacturer does not have approved color topping, use another compatible manufacturer's color topping. MIL-PRF-24667, Type I, when required, shall be specified in the invoking work item or task order. Boundaries of areas receiving nonskid not specified by specific ship's drawings shall be in accordance with 2.10.

(20) Prior to accomplishing painting of wooden underwater hulls, allow the hull to dry to a moisture content of 15 percent. Readings shall be taken with an electronic moisture meter, Sovereign Moisture Master or equal. Cover grounding plates and zincs prior to painting.

(21) Blasted surface metal must be degreased following walnut shell blasting. Even traces of residual oil will degrade coating adhesion. Appropriate safety precautions for working with flammable solvents must be enforced. Alternate procedure is a vigorous soap and water wash followed by pressurized fresh water rinse. Do not use a detergent and fresh water washdown when using aluminum oxide as an abrasive blast medium.

(22) Peripheral deck edging and areas not receiving nonskid may substitute the manufacturer's color topping for MIL-PRF-24635.

(23) For non-edge retentive coatings, radiusing of edges is recommended to ensure maximum service life. If edges are not radiused, the service life could be substantially reduced.

(24) Deburring and grinding of weld spatter is recommended to ensure maximum service life. If weld spatter is not removed, the service life of the coating could be substantially reduced.

(25) Power impact tool cleaning using power-driven needle guns, chipping or scaling hammers, rotary scalers, single or multiple-piston scalers, or other similar impact cleaning tools shall not be utilized in the cleaning methods.

(26) Maintain the relative humidity in the tank or void space at a maximum of 50 percent from the start of surface preparation to cure of the topcoat.

(27) Finish coats for boats and craft shall be as specified in Paragraph 631-9.3.4 through 631-9.3.5 of 2.2 unless otherwise specified in the invoking work item or task order.

(28) Thermal insulation shall be soap and water cleaned and hand sanded.

(29) Three coats of MIL-DTL-24441, Type III, at 3-4 mils per coat can be substituted for 2 coats of MIL-DTL-24441, Type IV, at 4-6 mils per coat, for total system DFT of 8-12 mils. Three full coats and 2 stripe coats of MIL-DTL-24441, Type III, at 3-4 mils per coat can be substituted for 2 full coats and one stripe coat of MIL-DTL-24441, Type IV, at 4-6 mils per coat, for total system DFT of 8-12 mils.

(30) Grit blasting to near white metal is the preferred method of surface preparation. Only where grit blasting is not possible should power tool cleaning be used ***with prior authorization by the SUPERVISOR***. Power tool cleaning should not be used for well deck areas frequently exposed to LCAC exhaust.

(31) A low-pressure (3,000 to 5,000 psi) fresh water washdown of the well deck area shall be performed before either grit blasting or power tool cleaning to remove dirt, oil, grease, salts, and loosely adherent coatings.

(32) Upon completion of surface preparation, pH measurements must be taken. The pH must be in the range of 6.5 to 7.5. If the pH is not within this range, the surface must be washed with fresh water until the required pH is obtained.

(33) Runs, sags, and drips may appear in the coating due to its solvent-free nature and application properties. In the normal application of this product, the appearance of runs, sags, and drips is only superficial and is not detrimental to the coating system. In these cases, no action shall be taken. In cases where the conditions are determined to be detrimental (coating in excess of 50 mils DFT) to the effectiveness of the coating system, immediate action shall be taken to correct the coating system. If the wet run, sag, or drip occurs on a dry surface, brush out the run, sag, or drip and reapply the prime coat directly over the brushed out area. If the run, sag, or drip has dried, then the

affected area shall be scraped or mechanically removed and the prime coat shall be reapplied.

(34) These systems may also be invoked for preservation of well deck bulkheads and decks.

(35) These systems shall also be invoked for barricade stanchions and wells, catapult jet blast deflector pits, and associated void spaces.

(36) SSPC-SP 11 shall be the surface preparation method used, even if the applicable ***NAVSEA-approved*** ASTM F718 has a more stringent requirement.

(37) Total DFT specified for potable water tanks shall not be exceeded except in isolated areas adjacent to shapes and stiffeners. In no case shall the maximum DFT be exceeded by 2 mils. The isolated areas shall be less than 2 percent of the total area.

(38) Maintain the relative humidity in the tank at a maximum of 85 percent from the start of abrasive blasting to cure of the topcoat. By allowing 85 percent vice 50 percent relative humidity, this will reduce the service life of the tank from 15-20 years to 10-12 years.

(39) Ameron Amercoat 892HS shall not be used for surfaces that exceed 700 degrees Fahrenheit.

(40) ***Intentionally left blank.***

(41) Apply 3 coats of a vapor barrier-coating compound, MIL-PRF-19565, in contrasting colors (white-orange-white), to insulation within laundries, sculleries, galleys, drying rooms, and to insulation on the warm side of refrigerated stores spaces.

(42) High temperature areas of exhaust pipe exteriors include BLISS caps, air eductors, and exhaust stacks.

(43) In lieu of white, use Light Gray, Color No. 26373 (Low Solar Absorption only). In lieu of black, use Ocean Gray, Color No. 26173 (Low Solar Absorption only).

(44) These systems shall also be invoked for Aircraft Electrical Servicing Stations (AESS) trunks.

(45) PCMS tile on the bow flares shall be painted with the same topcoat as the freeboard.

NOTES OF TABLES ONE THROUGH 5 ***FOR SURFACE SHIPS***
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(46) For struts, rudders, and other erosion-prone areas, add one coat 3-M Co. No. EC2216, 4-5 mils, and 3 coats, 5-6 mils/coat over the AC system prior to AF application if authorized by the TYCOM.

(47) The topcoats for ordnance/non-ordnance pyrotechnic locker sun shields shall be painted white (FED STD 595, Color No. 17875) or as directed by NAVSEA.

(48) All of the AC and AF coats in the product system must be from the same manufacturer.

(49) For touch-up of Sherwin-Williams Duraplate or Novaplate, Brushplate may be used. For touch-up of Sherwin-Williams Fast Clad ER, Fast Clad Brush Grade may be used. Brushplate and Fast Clad Brush Grade are applied at 8-10 mils/coat.

(50) "Cosmetic" color topping is not to be applied on top of nonskid on vertical replenishment or aviation decks.

(51) A second full coat of proprietary nonskid primer listed on the QPL for MIL-PRF-24667 may be applied if requested by the TYCOM.

(52) Do not blast Fin Stabilizers to near white metal. As received Fin Stabilizers shall be brush-off blast to NACE 4/SSPC-SP 7 (Brush-Off Blast Cleaning) in lieu of near white metal blast to ensure polymer fairing compound is not removed prior to application of coatings. Blank, wrap, cover, or mask equipment, shafts and openings to preclude damage and prevent entry of contaminants prior to cleaning operation. Remove protective covering upon completion of preservation operations.

(53) "Total System" value is only listed when it is more stringent than the sum of the individual coats of the system.

(54) This does not apply to nuclear propulsion water tanks.

NOTES OF TABLES 6 THROUGH 9 FOR SUBMARINES

(1A) Hull inserts must be coated with the preservation system applied to adjacent surfaces. Extend coating system a minimum 1/2-inch on to non-ferrous liner or cladding.

(2A) Alternating AF colors may be used. Final coat can be red or black.

(3A) For all surfaces above max beam that are to receive AF, all coats shall be black. The final coat of all exterior coating systems above the waterline shall also be black.

(4A) When applying a MIL-PRF-24647 system, the cure to immersion time for the anti-corrosive system may be different than the cure to immersion time for the anti-fouling paint. The longer cure to immersion time shall be used. Tack coats are not included when determining cure to immersion times.

(5A) Draft marks are applied directly to the AC coat; do not apply AF beneath draft marks.

(6A) Blasting is not allowed in machinery spaces.

(7A) Topcoat color must match surrounding paint on visible surfaces.

(8A) The MIL-PRF-23236 Type VII coatings approved for interior spaces of submarines under the Submarine Atmosphere Control Program are:

a. MIL-PRF-23236 Type VII, Class 5:

FAST CLAD ER (The Sherwin Williams Co.)
NOVAPLATE UHS (The Sherwin Williams Co.)
SIGMA EDGEGUARD (SIGMA Coatings)

b. MIL-PRF-23236 Type VII, Class 7:

SIGMAGUARD BT (SIGMA coatings)
DURAPLATE UHS (The Sherwin Williams Co.)
INTERGARD 143 (International Paint, Inc.)
AMERCOAT 133 (Ameron USA)
AMERCOAT 333 (Ameron USA)
FAST CLAD ER (The Sherwin Williams Co.)

c. MIL-PRF-23236 Type VII, Class 9:

SIGMAGUARD CSF 85 (SIGMA Coatings)

d. MIL-PRF-23236 Type VII, Class 13:

SIGMA EDGEGUARD (SIGMA Coatings)
NOVAPLATE UHS (The Sherwin Williams Co.)

TABLE ONE STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 3 YEARS SERVICE LIFE FOR SMALL BOATS AND SERVICE CRAFT ONLY	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	***ONE AC COAT MIL-PRF-24647, TYPE I OR II, RED*** ***-- & --*** ***ONE AC COAT MIL-PRF-24647, TYPE I OR II, GRAY, 4 - 6 MILS/COAT, 10 MILS MIN*** ***SEE NOTES (1), (3), (4), (5) & (48)***			ONE AF COAT MIL-PRF-24647, TYPE I ***OR*** II, 4-6 MILS SEE NOTES (2), (6), (27) & (48)	ONE AF COAT MIL-PRF-24647, TYPE I ***OR*** II, 4-6 MILS SEE NOTES (2), (6), (27) & (48)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 (LOW SOLAR ABSORPTION ONLY) TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY (LOW SOLAR ABSORPTION ONLY) ABOVE BOOTTOPPING, 2 - 3 MILS
	2	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA327 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERSLEEK 381 LIGHT PINK, BXA380/BXA381, 3 - 5 MILS -- & -- ONE COAT INTERSLEEK 425 HAZE GRAY, BXA816/ BXA821/ BXA822 OR BLACK, BXA819/ BXA821/ BXA822, 5 - 7 MILS SEE NOTES (2) & (6)	***ONE COAT INTERSLEEK 381 LIGHT PINK, BXA380/BXA381, 3 - 5 MILS*** ***-- & --*** ***ONE COAT INTERSLEEK 425 HAZE GRAY, BXA816/ BXA821/ BXA822 OR BLACK, BXA819/ BXA821/ BXA822, 5 - 7 MILS*** ***SEE NOTES (2) & (6)***	SAME AS LINE ONE
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 7 YEARS SERVICE LIFE SEE NOTE (46)	3	SAME AS LINE ONE	***SAME AS LINE ONE***			ONE AF COAT MIL-PRF-24647, TYPE I OR II, BLACK -- & -- ONE AF COAT MIL-PRF-24647, TYPE I OR II, RED, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2), (6) & (48)	2 AF COATS MIL-PRF-24647, TYPE I OR II, BLACK, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2), (6) & (48)	SAME AS LINE ONE
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 12 YEARS SERVICE LIFE SEE NOTE (46)	4	SAME AS LINE ONE	***SAME AS LINE ONE***			ONE AF COAT MIL-PRF-24647, TYPE I OR II, RED -- & -- ONE AF COAT MIL-PRF-24647, TYPE I OR II, BLACK -- & -- ONE AF COAT MIL-PRF-24647, TYPE I OR II, RED, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2), (6) & (48)	3 AF COATS MIL-PRF-24647, TYPE I OR II, BLACK, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2), (6) & (48)	SAME AS LINE ONE
EXISTING FIN STABILIZERS ***SEE NOTES (48) & (52)***	***5***	***BRUSH-OFF BLAST TO NACE 4/SSPC-SP-7***	***SAME AS LINE 4***			***SAME AS LINE 4***		
REFURBISHED FIN STABILIZERS ***SEE NOTE (48)***	***6***	***HAND TOOL CLEAN SSPC-SP-2***	***SAME AS LINE 4***			***SAME AS LINE 4***		
UNDERWATER HULL (CAPASTIC SHIELDS) SEE NOTES (10) & (11)	7	WHITE METAL BLAST, NACE 1/SSPC-SP-5	INNER SHIELD: ONE COAT US FILTER, ELECTROCATALYTIC, CAPASTIC™, PART NO. 35524, 100 MILS MIN OUTER SHIELD: ONE COAT US FILTER, ELECTROCATALYTIC, CAPASTIC™, PART NO. 35524, 22 MILS MIN	ANTICORROSIVE PAINT SAME AS SURROUNDING HULL ***EXCEPT ONE COAT***		ANTIFOULING PAINT SAME AS SURROUNDING HULL SEE NOTES (2) & (6)		
EXPOSED AREAS OF OUTBOARD SHAFTING COVERED BY GRP	***8***	***SAME AS LINE 6***	***ONE AC COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS*** ***SEE NOTES (1), (3), (4), (5) & (48)***			***ANTIFOULING PAINT SAME AS SURROUNDING HULL*** ***SEE NOTES (2) & (6)***		

TABLE ONE ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) SEE NOTE (46)	9	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS - OR - WATERJETTING TO NACE 5/ SSPC-SP-12 CONDITION WJ-2	ONE COAT INTERNATIONAL INTERGARD 264 FPL 274/FPA 327 RED, 4 - 6 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL INTERSLEEK 381 BXA380/BXA 381 LIGHT PINK, 3 - 5 MILS	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 816/BXA 821/BXA 822 HAZE GRAY, 5 - 7 MILS SEE NOTES (2) & (6)	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 816/BXA 821/BXA 822 HAZE GRAY, 5 - 7 MILS SEE NOTES (2) & (6)	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 819/BXA 821/BXA 822 BLACK, 5 - 7 MILS
UNDERWATER HULL APPLIES TO EMBARKED BOATS AND CRAFT ONLY	10	SAME AS ***LINE 9***	ONE COAT E-PAINT EP PRIMER 1000, 4 - 6 MILS	ONE COAT E-PAINT EP PRIMER 1000, 4 - 6 MILS	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) GRAY ---- & ---- ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) BLACK	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) GRAY SEE NOTES (2) & (6)	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) GRAY SEE NOTES (2) & (6)	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) BLACK

TABLE ONE GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) UP TO 7 YEARS SERVICE LIFE SEE NOTE (46)	11	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT - OR - TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.6 SEE NOTE (21)	ONE AC COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS SEE NOTES (1), (3), (4), (5) & (48)			ONE AF COAT MIL-PRF-24647, TYPE I OR II, BLACK -- & -- ONE AF COAT MIL-PRF-24647, TYPE I OR II, RED, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2), (6) & (48)	2 AF COATS MIL-PRF-24647, TYPE I OR II, BLACK, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2), (6) & (48)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 (LOW SOLAR ABSORPTION ONLY) TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY (LOW SOLAR ABSORPTION ONLY) ABOVE BOOTTOPPING, 2 - 3 MILS
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) UP TO 12 YEARS SERVICE LIFE SEE NOTE (46)	12	SAME AS ***LINE 11***	ONE AC COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS SEE NOTES (1), (3), (4), (5) & (48)			ONE AF COAT MIL-PRF-24647, TYPE I OR II, RED -- & -- ONE AF COAT MIL-PRF-24647, TYPE I OR II, BLACK -- & -- ONE COAT MIL-PRF-24647, TYPE I OR II, RED, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2), (6) & (48)	3 AF COATS MIL-PRF-24647, TYPE I OR II, BLACK, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2), (6) & (48)	SAME AS LINE ***11***
UNDERWATER HULL APPENDAGES ON MINESWEEPERS ONLY	13	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2	ONE FULL COAT AMERON 3258 GREEN, 3 - 5 MILS --- & --- ONE STRIPE COAT AMERON 3258 BLACK, 3 - 5 MILS --- & --- ONE FULL COAT AMERON 3258 HAZE GRAY, 3 - 5 MILS --- & --- ONE STRIPE COAT AMERON 3258 GREEN, 3 - 5 MILS --- & --- ONE FULL COAT AMERON 3258 BLACK, 3 - 5 MILS	ANTI-FOULING PAINT SAME AS SURROUNDING HULL				

TABLE ONE WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL	14	BRUSH-OFF BLAST TO REMOVE LOOSE & DETERIORATED COATINGS - OR - HIGH-PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT SEE NOTE (20)	KEEL TO 6 INCHES ABOVE UPPER BOOTTOP LIMIT ONE AC COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS SEE NOTES (1), (3), (4), (5) & (48)			ONE AF COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS SEE NOTES (2), (6), (27) & (48)	ONE AF COAT MIL-PRF-24647, TYPE I OR II, 4 - 6 MILS SEE NOTES (2), (6), (27) & (48)	ONE COAT NO. 26373 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) LT GRAY, TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT NO. 26173 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) OCEAN GRAY, ABOVE BOOTTOPPING, 2 - 3 MILS SEE NOTE (6)

TABLE 2 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP WITH EXCEPTION OF AREAS RECEIVING NONSKID & WELL DECK OVERHEAD AREAS SEE NOTE (2)	1	NEAR WHITE METAL BLAST NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	ONE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS	ONE STRIPE COAT -- & -- ONE FULL COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS/COAT		ONE COAT DECK GRAY NO.26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS SEE NOTES (43) & (47)
	2	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, 6 - 10 MILS -- & -- ONE FULL COAT MIL-PRF-23236, TYPE VII, 10 - 12 MILS		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT MIL-PRF-24647 APPROVED PRODUCT FROM TABLE ONE, ***LINE 4***	ONE STRIPE COAT -- & -- ONE FULL COAT MIL-PRF-24647 APPROVED PRODUCT FROM TABLE ONE, ***LINE 4***		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	4	SAME AS LINE ONE	PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTES (7) & (51)		ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G SEE NOTES (19), (22) & (50)		
CV AND CVN FLIGHT DECK LANDING AREAS	5	SAME AS LINE ONE	SAME AS LINE 4	SAME AS LINE 4		ONE COAT DARK GRAY, MIL-PRF-24667, TYPE I, COMP L SEE NOTES (19), (22) & (50)		
WALK AREAS (ALL DECK AREAS OTHER THAN HANGAR, FLIGHT, & VERTREP)	6	SAME AS LINE ONE	PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)		ONE COAT MIL-PRF-24667, TYPE I, II, OR III, COMP G - OR - ONE COAT MIL-PRF-24667, TYPE IV SEE NOTES (19) & (22)		

TABLE 2 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
RAST TRACK TROUGHS WHERE PAINTED (WHERE NONSKID NOT APPLIED)	7	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS			
WELL DECK OVERHEADS, BOTH EXPOSED & NON-EXPOSED TO LCAC EXHAUST SEE NOTE (34)	8	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE***S (30) &*** (31)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 10 - 12 MILS SEE NOTES (33) & (49)			
EXTERIOR PORTABLE/BOLTED LOUVERS FOR INTAKES AND UPTAKES	9	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTES (33) & (49)		***SAME AS LINE ONE***	***SAME AS LINE ONE***
EXTERIOR STEEL SURFACES	10	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	11	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	12	SAME AS LINE 8	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

TABLE 2 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP, WITH EXCEPTION OF AREAS RECEIVING NONSKID SEE NOTE (2)	13	NEAR WHITE METAL BLAST, USING GARNET, ALUMINUM OXIDE, BLACK WALNUT SHELLS, OR STAINLESS STEEL SHOT -- & -- SPOT CLEANING, CHAP 631, PARA 631-5.2.4.3 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 SEE NOTE (21)	ONE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE COAT MIL-PRF-23236, TYPE VII, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE STRIPE COAT MIL-PRF-23236, TYPE VII, 6 - 10 MILS	ONE FULL COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE FULL COAT MIL-PRF-23236, TYPE VII, 10 - 12 MILS	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS SEE NOTE (47)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS SEE NOTES (43) & (47)
	14	SAME AS LINE 13		2 COATS F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT		SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13
WALK AREAS ALL DECK AREAS OTHER THAN HANGAR, FLIGHT & VERTICAL REPLENISHMENT DECK AREAS	15	SAME AS LINE 13	PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTES (7) & (51)		ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G - OR - ONE COAT MIL-PRF-24667 TYPE IV SEE NOTES (19) & (22)		
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	16	SAME AS LINE 13	SAME AS LINE 15	SAME AS LINE 15		ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G SEE NOTES (19), (22) & (50)		
RAST TRACK TROUGHS WHERE PAINTED (WHERE NONSKID NOT APPLIED	17	SAME AS LINE 13	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS			
EXTERIOR PORTABLE/BOLTED LOUVERS FOR INTAKES AND UPTAKES	18	SAME AS LINE 13	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTES (33) & (49)		***SAME AS LINE 13***	***SAME AS LINE 13***
EXTERIOR ALUMINUM SURFACES	19	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13
	20	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13

TABLE 2 GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP SEE NOTE (2)	21	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT - OR - TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.6 SEE NOTE (21)	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)		ONE STRIPE COAT F-152, MIL-DTL-24441, TYPE IV, 4 - 6 MILS -- & -- ONE COAT F-151, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS SEE NOTE (43)
EXTERIOR WALK AREAS ALL EXTERIOR DECK AREAS	22	POWER TOOL CLEAN TO CLEAN FIBERGLASS (DISC SANDER, ETC.) - OR - POWER TOOL CLEAN TO POLYURETHANE OVERLAY SUBSTRATE (DISC SANDER, ETC.) - OR - HYDROBLAST TO CLEAN FIBERGLASS SEE NOTE (25)	PROPRIETARY NONSKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT MIL-PRF-24667, TYPE I, II, OR III, COMP G - OR - MIL-PRF-24667 TYPE IV SEE NOTES (19) & (22)		

TABLE 2 WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR ABOVE BOOTTOPPING	23	HAND TOOL CLEAN - OR - POWER TOOL CLEAN TO REMOVE DETERIORATED COATINGS	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS	DECKS, MASTS & SPARS: ONE COAT NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	ALL OTHER SURFACES: ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS			IDENTIFICATION MARKINGS: PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS SEE NOTE (43)

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	1	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (17) & (28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS DECKS ONE COAT NO. 27038 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTES (9), (28) & (41)	FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	SAME AS LINE ONE	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	3	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTE (28)	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	4	POWER TOOL CLEANING TO BARE METAL, SSPC-SP-11 SEE NOTE (28)	ONE COAT SIGMAGLAZE 5492, WHITE ONLY, 8-10 MILS		ONE STRIPE COAT SIGMAGLAZE 5492, 8-10 MILS, -- & -- ONE FULL COAT, 8-10 MILS, WHITE ONLY		SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE 4	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT, 10 - 12 MILS		SAME AS LINE ONE	SAME AS LINE ONE
	6	***SAME AS LINE 4***	***SAME AS LINE 5***		***ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE FULL COAT 6 - 8 MILS***		***SAME AS LINE ONE***	***SAME AS LINE ONE***

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	***7***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTES (17) & (28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	BHDS, OVHDS, ONE COAT NO.37038 (FED STD 595), MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS DECKS ONE COAT NO. 27038 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS (TO DECKS NOT RECEIVING COVERING)	SAME AS LINE ONE	SAME AS LINE ONE
	8	SAME AS LINE ***7***	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	SAME AS LINE ONE	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	***9***	POWER TOOL CLEANING, SSPC-SP-3 SEE NOTE (28)	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT
MACHINERY SPACES & BILGES SEE NOTE (44)	***10***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (28)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 1.5 - 3 MILS/COAT	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	SAME AS LINE ONE	
	11	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (28)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (49)		SAME AS LINE ***10***	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (49)	SAME AS LINE ONE	

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS (CON'T)	**12**	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (33) & (49)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MI-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)		
	13	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L -OR- NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES	***14***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS -- & -- ONE FULL COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7,6 - 10 MILS -- & -- ONE FULL COAT MIL-PRF-23236, TYPE VII, CLASS 7,10 - 12 MILS SEE NOTE (33)		
	15	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES (CON'T)	***16***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
FAN ROOMS	***17***	SAME AS LINE ***10***	SAME AS LINE ***16***		SAME AS LINE ***16***	SAME AS LINE ***16***		
MIXING ROOM/UPTAKE SPACES WITH VENTS OR LOUVERS TO THE OUTSIDE ATMOSPHERE (BULKHEADS & DECKS)	***18***	NEAR WHITE METAL BLAST NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (33) & (49)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)		

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
UNDER AFFF PROPORTIONING UNITS (INSIDE THE COAMING), OR BILGE DRAIN WELLS	***19***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (32) & (36)	ONE COAT BELZONA CERAMIC METAL 4311, 12 - 18 MILS			ONE COAT BELZONA CERAMIC METAL 4311, 12 - 18 MILS		
	20	SAME AS LINE ***19***	ONE COAT CHESTERTON ARC 855N, 12 - 18 MILS			ONE COAT CHESTERTON ARC 855N, 12 - 18 MILS		
	21	SAME AS LINE ***19***	ONE COAT ENECON CORPORATION CERAMALLOY CL+ [AC], 12 - 18 MILS			ONE COAT ENECON CORPORATION CERAMALLOY CL+ [AC], 12 - 18 MILS		
	22	SAME AS LINE ***19***	ONE COAT MIL-PRF-32171, TYPE ***IV***, CLASS 1 OR 2, 12 - 18 MILS			ONE COAT MIL-PRF-32171, TYPE ***IV***, CLASS 1 OR 2, 12 - 18 MILS		
INTERIOR DECK PASSAGEWAYS NOT RECEIVING DECK COVERINGS (HIGH DURABILITY DECK PAINT) SEE NOTE (12)	***23***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT AMERON AMERCOAT 238, 10 - 12 MILS			ONE COAT AMERON AMERCOAT 238, 10 - 12 MILS		
	24	SAME AS LINE ***23***	ONE COAT SIGMAGUARD CSF GLASS FLAKE 7954, 10 - 12 MILS			ONE COAT SIGMAGUARD CSF GLASS FLAKE 7954, 10 - 12 MILS		
	25	SAME AS LINE ***23***	ONE COAT MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS			ONE COAT MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS		
INTERIOR STEEL SURFACES	26	SAME AS LINE ***12***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	27	SAME AS LINE ***13***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	28	SAME AS LINE ***16***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS	29	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHES, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18) SEE NOTES (17) & (28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS DECKS ONE COAT NO. 27038 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT - OR - 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595),: MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS (TO DECKS NOT RECEIVING DECK COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT - OR - 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTES (9), (28) & (41)	FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	30	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (17) & (28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	SAME AS LINE 29	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595): MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS - OR - MIL-PRF-32171, TYPE I, CLASS 1 OR 2, 10 - 12 MILS (TO DECKS NOT RECEIVING COVERING)	SAME AS LINE 29	SAME AS LINE 29
INTERIOR COMPARTMENTS (OVERCOAT)	31	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTE (28)	SAME AS LINE 29 FOR BARE METAL AREAS	SAME AS LINE 29	SAME AS LINE 29 EXCEPT ONE COAT	SAME AS LINE 29	SAME AS LINE 29 EXCEPT ONE COAT	SAME AS LINE 29
	32	POWER TOOL CLEANING, SSPC-SP-3 SEE NOTE (28)	SAME AS LINE 29 FOR BARE METAL AREAS	SAME AS LINE 29	SAME AS LINE 29 EXCEPT ONE COAT	SAME AS LINE 29	SAME AS LINE 29 EXCEPT ONE COAT	SAME AS LINE 29
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	33	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (28)	ONE COAT SIGMA GLAZE 5492, 8-10 MILS, WHITE ONLY		ONE STRIPE COAT SIGMA 5492, 8-10 MILS -- & -- ONE FULL COAT, 8-10 MILS, WHITE ONLY		SAME AS LINE 29	SAME AS LINE 29
	34	SAME AS LINE 33	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS -- & -- ONE FINAL COAT, 10 - 12 MILS		SAME AS LINE 29	SAME AS LINE 29
	35	***SAME AS LINE 33***	***SAME AS LINE 34***		***ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE FULL COAT 6 - 8 MILS***		***SAME AS LINE 29***	***SAME AS LINE 29***

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
MACHINERY SPACES & BILGES	***36***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS SEE NOTE (28)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 1.5 - 3MILS/COAT	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	SAME AS LINE 29	
	37	NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS SEE NOTE (28)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (49)		SAME AS LINE ***36***	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (49)	SAME AS LINE 29	
INTAKE VENT PLENUMS, BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS	***38***	NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (33) & (49)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)		
	39	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES	***40***	NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	ONE COAT MIL-PRF-23236, TYPE 7, CLASS 7, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (33)		
	41	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
	42	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHES, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
MIXING ROOM/UPTAKE SPACES WITH VENTS OR LOUVERS TO THE OUTSIDE ATMOSPHERE (BULKHEADS & DECKS)	***43***	NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (33) & (49)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)		
INTERIOR ALUMINUM SURFACES	***44***	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29
	45	SAME AS LINE ***38***	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29
	46	SAME AS LINE ***39***	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29

TABLE 3 GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR FIBROUS GLASS BOARDS	***47***	SOAP & WATER CLEAN & HAND SAND AS NECESSARY	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS		2 COATS WATER-BASED INTERIOR LATEX, MIL-PRF-24596, 2 - 4 MILS/COAT			
	48	SAME AS LINE ***47***	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS		2 COATS OF FINISH COAT DOD-E-24607, 1.5 - 3 MILS/COAT, F-124, 125, OR 126 (COLOR TO BE DESIGNATED)			

TABLE 3 WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS	**49**	HAND TOOL CLEAN -- & -- POWER TOOL CLEAN TO BARE WOOD OR TIGHTLY ADHERING INTACT PAINT	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS/COAT		2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT SEE NOTES (9) & (17)			FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	50	SAME AS LINE ***49***	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS/COAT		2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT SEE NOTE (17)			SAME AS LINE ***49***

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL ***SYSTEM*** ***SEE NOTE (53)***
POTABLE WATER TANKS	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (26)	ONE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 4 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 4 - 8 MILS			
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE	TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX (AREAS WITHOUT STRIPE COAT) SEE NOTE (37)
	3	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, ***4 - 8*** MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 9, ***6 - 10*** MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, ***10 - 12*** MILS SEE NOTE (33)			
FEEDWATER TANKS ONLY ***SEE NOTE (54)***	4	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE	TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX (AREAS WITHOUT STRIPE COAT)
	5	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 8 MILS			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS 15-20 YEARS SERVICE LIFE SEE NOTE (35)	6	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTES (33) & (49)			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS 10-12 YEARS SERVICE LIFE (LESS STRINGENT HUMIDITY REQUIREMENTS) SEE NOTE (35)	7	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (38)	SAME AS LINE 6	SAME AS LINE 6	SAME AS LINE 6			

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL ***SYSTEM*** ***SEE NOTE (53)***
CHT/MSD TANKS	8	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 10 - 12 MILS SEE NOTE (33)			
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT & ABOVE) EDGE RETENTIVE-EXTENDED SERVICE LIFE 15-20 YEARS SEE NOTE (8)	9	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTES (33) & (49)			
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT & ABOVE) EDGE RETENTIVE SERVICE LIFE 10 - 12 YEARS (LESS STRINGENT HUMIDITY REQUIREMENTS) SEE NOTE (8)	10	SAME AS LINE 7	SAME AS LINE 9	SAME AS LINE 9	SAME AS LINE 9			
BALLAST TANKS, FLOODABLE VOIDS (USE ONLY WHEN SUBSTRATE TEMPERATURE CANNOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT) NORMAL 5 - 7 YEARS SERVICE LIFE	11	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, GRADE A OR B, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, GRADE A OR B, 4 - 8 MILS	ONE COAT MIL-PRF-23236, GRADE A OR B, 4 - 8 MILS			
CHAIN LOCKERS	12	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE COAT MIL-PRF-23236, TYPE VII, 4 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE STRIPE COAT MIL-PRF-23236, TYPE VII, 6 - 10 MILS	ONE FULL COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS -- OR -- ONE FULL COAT MIL-PRF-23236, TYPE VII, 10 - 12 MILS			
NON-FLOODABLE VOIDS	13	SAME AS LINE 12	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTES (33) & (49)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTES (33) & (49)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTES (33) & (49)			

TABLE 4 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL ***SYSTEM*** ***SEE NOTE (53)***
TANKS AND VOIDS	14	NEAR WHITE METAL BLAST, USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL

TABLE 5 VARIOUS LOCATIONS	LINE	A SURFACE PREPARATION	B	C	D	E	F TOTAL SYSTEM ***SEE NOTE (53)***	G DESIGNATIONS & MARKINGS
UNHEATED PIPING, FITTINGS, VALVES	1	HANDTOOL CLEAN, SSPC-SP-2	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS	2 COATS OF BILGE FINISH COAT TO MATCH SURROUNDING SURFACES, INCLUDING LAGGED SURFACES			ONE COAT MIL-PRF-24635, 2 - 3 MILS, FOR COLOR CODED SYSTEMS
UNHEATED FERROUS MACHINERY EXTERNAL SURFACES	2	POWER TOOL CLEAN, SSPC-SP-3	SAME AS LINE ONE	ONE COAT F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	IF REQUIRED FOR HIDING, ONE ADDITIONAL COAT: F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS			
MACHINERY, GAGEBOARDS	3	SAME AS LINE 2	SAME AS LINE ONE	ONE COAT F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	IF REQUIRED FOR HIDING, ONE ADDITIONAL COAT: F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS			
UNINSULATED SIDE OF BULKHEAD OR SHELL ADJACENT TO SEA OR AC BOUNDARY (FOR INTERIOR COMPARTMENTS ONLY)	4	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT HEMPEL HEMPADUR 45150-50630, 4 - 6 MILS	ONE COAT HEMPEL ANTI-CONDENS 617US-10000, 50 - 60 MILS				
	5	SAME AS LINE 4	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS - OR - ONE COAT MIL-PRF-23236, TYPE IV, V, VI, OR VII, 4 - 8 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS		
BOILERS & ECONOMIZERS (EXCEPT PARTS USED FOR HEAT TRANSFER), MACHINERY CASINGS, FERROUS SHEET METAL & PIPING SURFACES	6	SAME AS LINE 4	ONE COAT AMERON AMERCOAT 892HS, 2 - 3 MILS SEE NOTE (39)					
	7	SAME AS LINE 4	2 COATS OF TT-P-28 SUFFICIENT TO COVER THE PROFILE					
ELECTRICAL EQUIPMENT, ELECTRONIC EQUIPMENT & CABLES	8	SAME AS LINE ONE	ONE COAT F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS	2 COATS F-111, MIL-DTL-15090, 1.5 - 3 MILS/COAT - OR - ONE COAT NO. 26307 FED STD 595), MIL-PRF-24635, 2 - 3 MILS				
CABLE, INTERIOR (OTHER THAN PVC, LOW SMOKE)	9	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT	2 COATS WATER-BASED LATEX PER MIL-PRF-24596, 2 - 4 MILS/COAT	2 COATS DOD-E-24607 CHLORINATED ALKYD 1.5 - 3 MILS/COAT (FOR COLOR MATCH IF REQUIRED)			
CABLE, EXTERIOR (OTHER THAN PVC, LOW SMOKE)	10	SAME AS LINE ONE	SAME AS LINE 8	ONE COAT MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) TO MATCH SURROUNDING AREA, 2 - 3 MILS				

TABLE 5 VARIOUS LOCATIONS	LINE	A SURFACE PREPARATION	B	C	D	E	F TOTAL SYSTEM ***SEE NOTE (53)***	G DESIGNATIONS & MARKINGS
ANCHOR (SURFACE SHIP BOW ANCHORS) FOR ANCHORS BELOW LOWER BOOTTOPPING LIMIT, SEE NOTE (13)	***11***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (14)	ONE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS - OR - ONE COAT MIL-PRF-23236, TYPE VII, 4 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE IV, V, OR VI, 4 - 8 MILS - OR - ONE COAT MIL-PRF-23236, TYPE VII, 10 - 12 MILS	ONE COAT HAZE GRAY, NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS			
ANCHOR CHAIN	***12***	COMMERCIAL BLAST CLEAN, SSPC-SP-6 SEE NOTES (14) & (16)	ONE COAT AMERON PSX 700 TO HOLD BLAST, 1 - 2 MILS	ONE COAT AMERON PSX 700, 4 - 5 MILS	ONE COAT AMERON PSX 700, 4 - 5 MILS		10 MILS MIN, 12 MILS MAX	AMERON PSX 700 SEE NOTE (15)
INTERIOR GALVANIZED SURFACES	***13***	BRUSH-OFF BLAST, SSPC-SP-7 - OR - POWER TOOL CLEAN, SSPC-SP-3		ONE COAT WATER-BASED INTERIOR LATEX, MIL-PRF-24596, 2 - 4 MILS	TOPCOAT TO MATCH SURROUNDING AREA			
EXTERIOR GALVANIZED SURFACES	***14***	SAME AS LINE ***13***		ONE COAT MIL-PRF-24763, 2 - 4 MILS	TOPCOAT TO MATCH SURROUNDING AREA			
EXHAUST PIPE EXTERIOR	***15***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT AMERCOAT 892HS, HAZE GRAY #26270, 2 - 3 MILS - OR - 2 COATS OF TT-P-28 SUFFICIENT TO COVER THE PROFILE SEE NOTES (39) & (42)					
PCMS (REPAIRS)	***16***	STRIP PAINT, USING "PEEL-AWAY-7" - OR - PLASTIC MEDIA BLASTER - OR - SODIUM BICARBONATE MEDIA BLASTER SEE REPAIR & INSTALLATION METHODS, RIM 05T1-99			ONE COAT HAZE GRAY, MIL-PRF-24763 (LOW SOLAR ABSORPTION ONLY), 2 - 4 MILS (TOP COAT OF PCMS) SEE NOTE (45)			
PCMS (NEW INSTALLATION)	***17***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)	ONE COAT F-151, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTES (29)	SAME AS LINE ***16***			

TABLE 6 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO MAX BEAM	F MAX BEAM TO UPPER BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO UPPER BOOTTOP; RUDDERS; STRUTS; DVING PLANES) (NON-SHT SURFACES BELOW WATERLINE)	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	2 AC COATS MIL-PRF-24647 TYPE I OR II, 4 – 6 MILS/COAT SEE NOTES (1A) AND (4A)			2 AF COATS MIL-PRF-24647, TYPE I OR II, 4 – 6 MILS/COAT SEE NOTE (2A)	2 AF COATS MIL-PRF-24647, TYPE I OR II BLACK, 4 – 6 MILS/COAT SEE NOTE (3A)	ONE COAT MIL-DTL-24631 F-186 --OR-- ONE COAT MIL-DTL-24441 TYPE IV, F-152 --OR-- ONE AC COAT MIL-PRF-24647, WHITE, 3-4 MILS SEE NOTE (5A)
NON-SHT, EXTERIOR SURFACES ABOVE THE WATERLINE (INCLUDES DSRV/SRC SEATING SURFACES)	2	SAME AS LINE ONE	TWO COATS MIL- PRF-23236, TYPE V, CLASS 5 OR 7, 4-8 MILS/COAT --OR— 2 COATS AC MIL-PRF-24647, TYPE I OR II, 4-6 MILS/COAT FINAL COAT TO BE BLACK SEE NOTE (1A)					
	3	SAME AS LINE ONE	ONE COAT MIL-DTL-24441 TYPE IV, F-150, 4-6 MILS ---&--- ONE COAT MIL-DTL-24441 TYPE IV, F-153, 4-6 MILS SEE NOTE (1A)					
FOR MOORED TRAINING SHIPS ONLY; EXTERIOR SURFACES ABOVE THE WATERLINE (NON-IMMERSION SURFACES ONLY)	4	SAME AS LINE ONE	2 COATS MIL-PRF-23236, TYPE V, CLASS 5 OR 7, 4-8 MILS/COAT --OR-- 2 COATS MIL-DTL-24441, TYPE IV 4-6 MILS/COAT SEE NOTE (1A)			ONE COAT, MIL-PRF-24635 NO. 27038, 2-4 MILS		
UNTILED (NON-SHT COVERED) FOOT TRAFFIC AREAS TO BE COVERED WITH NONSKID PAINT (ALL CLASSES OF SUBMARINES)	5	SAME AS LINE ONE	ONE COAT MIL-DTL-24441 TYPE IV F-150, 4-6 MILS ---&--- ONE COAT MIL-DTL-24441 TYPE IV F-153, 4-6 MILS			NONSKID: MIL-PRF-24667 TYPE I OR X, COMP G		
	6	SAME AS LINE ONE	TWO COATS MIL- PRF-23236, TYPE V, CLASS 5 OR 7, 4-8 MILS/COAT --OR— 2 COATS AC MIL-PRF-24647, TYPE I OR II, 4-6 MILS / COAT FINAL COAT TO BE BLACK			SAME AS LINE 5		

TABLE 7 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E BULKHEADS AND OVERHEADS	F THERMAL INSULATION	G
BILGES (AREAS BELOW THE LOWER WALKING FLAT), MACHINERY SPACES, AND TRUNK INTERIORS	1	POWER TOOL CLEAN TO BARE METAL SSPC-SP-11- OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L SEE NOTE (6A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4-8 MILS SEE NOTES (8A) & (15A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6-10 MILS --&-- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10-12 MILS SEE NOTE (7A), (8A) & (15A)		ABOVE BILGE AREA: ONE COAT DOD-E-24607, 1-2 MILS SEE NOTES (7A), (9A), (10A) & (11A)	2 COATS DOD-E-24607 --OR— 2 COATS MIL-PRF-24596 1-2 MILS/COAT, TOTAL 3 MILS MIN SEE NOTES (7A), (9A), (10A) & (11A), (14A)	
	2	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6-8 MILS SEE NOTES (8A) & (15A)	ONE STRIPE COAT AND ONE FULL COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6-8 MILS/COAT SEE NOTE (7A), (8A) & (15A)		SAME AS LINE ONE	SAME AS LINE ONE	
	3	SAME AS LINE ONE	ONE COAT MIL-DTL-24441 TYPE IV, F-150, 4-6 MILS SEE NOTE (15A)	ONE STRIPE COAT AND ONE FULL COAT MIL-DTL-24441 TYPE IV, F-151 OR F-157, 4-6 MILS/COAT SEE NOTES (7A) & (15A)		SAME AS LINE ONE	SAME AS LINE ONE	
	4	SAME AS LINE ONE	ONE COAT MIL- PRF-23236, TYPE IV, V, OR VI, CLASS 5 OR 7, 4-8 MILS SEE NOTE (15A)	ONE STRIPE COAT AND ONE FULL COAT MIL-PRF-23236, TYPE V, CLASS 5 OR 7, 4-8 MILS/COAT SEE NOTES (7A) & (15A)		SAME AS LINE ONE	SAME AS LINE ONE	
UPPER HATCH COVER INTERIOR	5	SAME AS LINE ONE	2 COATS MIL-DTL-24441 TYPE IV, 2-4 MILS/COAT --OR-- 2 COATS MIL-PRF-23236, TYPE V, CLASS 5 OR 7, 4-8 MILS/COAT SEE NOTES (12A) & (15A)	ONE COAT DOD-E-24607, 1-2 MILS SEE NOTES (9A), (10A), (11A) & (12A)	VERMICULITE, ASTM C-516, 4-6 MILS WFT SEE NOTE (13A)	ONE COAT DOD-E-24607, 1-2 MILS SEE NOTES (7A), (9A), (10A), (11A) & (12A)		
WET SPACES (EXCEPT BILGES AND TRUNKS)	6	SAME AS LINE ONE	SAME AS LINE 3	SAME AS LINE 3		SAME AS LINE 5		
	7	SAME AS LINE ONE	SAME AS LINE 4	SAME AS LINE 4		SAME AS LINE 5		
VRLA BATTERY COMPARTMENT	8	SAME AS LINE ONE	SAME AS LINE 3	SAME AS LINE 3		SAME AS LINE 5		
VA CLASS BATTERY COMPARTMENT (DECK AND BHDS UP TO 62" ABOVE TOP STEP OF DECK)	9	SAME AS LINE ONE	TEK-HAZ RED PRIME COAT 16-20 MILS SEE NOTE (24A)	TEK-HAZ GRAY TOP COAT 16-20 MILS SEE NOTE (24A)				
VA CLASS BATTERY COMPARTMENT (OVHD AND BHDS ABOVE 62" ABOVE TOP STEP OF DECK)	10	SAME AS LINE ONE	ONE COAT MIL-DTL-24441 TYPE IV, F-150, 4-6 MILS SEE NOTE (24A)			2 COATS MIL-PRF-24635 TYPE II CLASS 1, 4-6 MILS/ COAT SEE NOTE (24A)		

TABLE 7 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E BULKHEADS AND OVERHEADS	F THERMAL INSULATION	G
INTERIOR COMPARTMENT AND PASSAGEWAY DECKS NOT COVERED ELSEWHERE	11	SAME AS LINE ONE	SAME AS LINE 3	SAME AS LINE 3 (TO DECKS NOT RECEIVING DECK COVERING)				
	12	SAME AS LINE ONE	SAME AS LINE 4	SAME AS LINE 4 (TO DECKS NOT RECEIVING DECK COVERING)				
	13	SAME AS LINE ONE	ONE COAT MIL-PRF-32171, TYPE II	ONE STRIPE COAT AND ONE FULL COAT MIL-PRF-32171, TYPE II (TO DECKS NOT RECEIVING DECK COVERING) SEE NOTE (7A)				
	14	SAME AS LINE ONE	ONE COAT TT-P-645, F-84 2-4 MILS	2 COATS MIL-PRF-24635, 1-2 MILS/ COAT, TOTAL 3 MILS MIN (TO DECKS NOT RECEIVING DECK COVERING) SEE NOTE (7A)				

TABLE 8 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
POTABLE WATER TANKS	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 4-8 MILS SEE NOTES (8A), (15A), (17A) & (21A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 6-10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 10-12 MILS SEE NOTE (8A)			
	2	SAME AS LINE ONE	ONE COAT MIL-DTL-24441, TYPE III, F-150, 2-4 MILS SEE NOTES (15A), (17A) & (21A)	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2-4 MILS	ONE COAT MIL-DTL-24441, TYPE III, 2-4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2-4 MILS	ONE COAT MIL-DTL-24441, TYPE III DFT AS NECESSARY TO MEET TOTAL SYSTEM THICKNESS REQUIREMENTS	TOTAL SYSTEM 8 -12 MILS (ON AREAS WITHOUT STRIPE COAT) SEE NOTE (22A)
RESERVE FEEDWATER TANKS	3	SAME AS LINE ONE	ONE COAT MIL-DTL-24441, TYPE III, F-150, 2 - 4 MILS SEE NOTES (15A), (17A) & (21A)	ONE STRIPE COAT MIL-DTL-24441 TYPE III F-152, 2 - 4 MILS	ONE COAT MIL-DTL-24441, TYPE III F-151, 2 - 4 MILS	ONE STRIPE COAT MIL-DTL-24441, TYPE III, F-150, 2 - 4 MILS	ONE COAT MIL-DTL-24441 TYPE III F-152, 2 - 4 MILS	TOTAL SYSTEM 8 MILS MIN
AUXILIARY TANKS, ACR HOLDING TANKS (MTS), DEPTH CONTROL TANKS, FORWARD TRIM/WPT TANKS, SEAWATER EXPANSION TANK, SECONDARY SHIELD WATER OVERFLOW TANK (MTS), TRIP TANKS, UNHEATED WATER STORAGE TANK (MTS), WRT TANKS	4	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 4 - 8 MILS SEE NOTES (8A), (15A), (16A) & (17A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (8A)			
BILGE AND DRAIN COLLECTION TANKS SEE NOTE (25A)	5	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (8A), (15A) & (17A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (8A)			
BOW TANK, BOW SONAR TANK, SONAR DOME AREA STEEL STRUCTURE (INCLUDES SONAR SPHERE, ITS SUPPORT STRUCTURE, AND FORWARD SIDE OF MBT BULKHEAD)	6	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7 4 - 8 MILS SEE NOTES (8A), (17A) & (19A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTES (8A) & (18A)			
NFO EXPANSION TANK, FUEL OIL OVERFLOW/COLLECTING TANK, FUEL OIL FILTER SUMP DRAIN TANK, ES DIESEL FUEL OIL TANK (MTS)	7	SAME AS LINE ONE	ONE COAT MIL-DTL-24441, TYPE IV, F-150, 4 - 6 MILS SEE NOTES (17A), (19A), & (20A)	ONE STRIPE COAT MIL-DTL-24441, TYPE IV, 4 - 6 MILS	ONE COAT MIL-DTL-24441, TYPE IV, F-152 OR F-151, 4 - 6 MILS			
	8	SAME AS LINE ONE	ONE COAT MIL-PRF-23236 TYPE VI, CLASS 5, 4-8 MILS SEE NOTES (17A) & (19A)	ONE STRIPE COAT MIL-PRF-23236 TYPE VI, CLASS 5, 4-8 MILS	ONE COAT MIL-PRF-23236 TYPE VI, CLASS 5, 4-8 MILS			
ALL PAINTED LUBE OIL TANKS EXCEPT DIESEL GENERATOR LUBE OIL TANKS	9	HAND TOOL PREP, SSPC-SP 2	COAT WITH TEP-2190 OIL					
DIESEL GENERATOR LUBE OIL TANK	10	SAME AS LINE 9	COAT WITH MIL-L-9000 GRADE MS-9250 LUBE OIL					

TABLE 8 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
MAIN BALLAST TANKS ABOVE RESIDUAL WATER LINE; HIGH PRESSURE AIR FLASKS IN MBT'S, EMBT AIR FLASKS IN MBT'S	11	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 4 - 8 MILS SEE NOTES (8A), (16A), (17A), (18A), (19A) & (23A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (8A)			
MAIN BALLAST TANKS BELOW RESIDUAL WATER LINE	12	SAME AS LINE ONE	SAME AS LINE 11	SAME AS LINE 11	SAME AS LINE 11	2 COATS AF MIL-PRF-24647 (4-6 MILS PER COAT) FROM BOTTOM CENTERLINE TO APPROXIMATELY 2' VERTICALLY ABOVE HEIGHT OF HIGHEST FLOOD LOUVER OVER A TACK COAT (1-2 MILS) MIL-DTL-24441 TYPE IV SEE NOTE (4A)		
MAIN INDUCTION SUMP TANK, MISSILE COMPENSATING TANKS (), TORPEDO IMPULSE TANKS, AND AUXILIARY VARIABLE BALLAST TANKS, VARIABLE BALLAST TANKS	13	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 4 - 8 MILS SEE NOTES (8A), (15A) & (17A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 7, 10 - 12 MILS SEE NOTE (8A)			
SANITARY TANKS SANITARY FLUSHING TANKS	14	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 4-8 MILS NOTES (8A), (15A) & (17A)	STRIPE COAT MIL-PRF-23236 TYPE VII, CLASS 13 6-10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236 TYPE VII, CLASS 13, 10-12 MILS SEE NOTE (8A)			
STEAM PLANT SURGE TANKS (MTS)	15	SAME AS LINE ONE	ONE COAT OF APEXIOR NO. 1 (DAMPNEY CO.). 2 - 4 MILS	ONE COAT OF APEXIOR NO. 1 (DAMPNEY CO.), 2 - 4 MILS				
WASTE OIL COLLECTING TANKS, WASTE OIL OVERFLOW TANKS, ENGINE ROOM OIL COLLECTION TANKS	16	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTES (8A), (15A) & (17A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (8A)			

TABLE 8 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
FREE FLOOD AREAS AND RECESSES: INSIDE SURFACES OF FAIRWATER, UNDERSIDE OF SUPERSTRUCTURE, CHAIN LOCKERS (EXCEPT 726 CLASS), INTERIOR SURFACES OF STEEL DOMES, SHAFT TUBE INTERIOR SURFACES (WHEN SHAFT IS REMOVED), BOW DOME ACCESS FREE FLOOD AREA, BSY-1 RECESS (FR 29-30 STBD), 726 CLASS ACCESS SONAR DOME RECESS (FR 6-7 PORT), 726 CLASS SONAR SPHERE EXTERNAL SURFACES, 726 CLASS SONAR TRUNK EXTERNAL SURFACES, 726 CLASS SONAR DOME BHD (FR 4), 726 CLASS SONAR CAVITY (FR 6-8), 726 CLASS SONAR DOME ACCESS TRUNK (FR 6-7), CAPSTAN RECESS, SONAR PENETRATION SPLICE TRUNK RECESSES (PORT AND STBD), SONAR CABLE TRUNK, EMERGENCY TOWING PENDANT, BETWEEN BLADES COVER PLATES (BBCP) RECESS	17	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4-8 MILS SEE NOTES (1A), (3A) & (8A)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6-10 MILS SEE NOTE (8A)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10-12 MILS SEE NOTE (8A)			
FREE FLOOD AREAS AND RECESSES: TORPEDO TUBE RECESS, AFT FREE FLOOD AREA (MUD TANK), EJECTION PUMP RECESS, SECONDARY PROPULSION MOTOR (SPM) RECESS, 726 CLASS CHAIN LOCKER, SSN688 CLASS BQN-17, BSY-1 OR AN/BBQ-10/V(1) RECESS (FR 14-15 PORT BOTTOM), 726 CLASS ANCHOR RECESS	18	SAME AS LINE ONE	SAME AS LINE 17	SAME AS LINE 17	SAME AS LINE 17	2 AF COATS MIL-PRF-24647 TYPE I OR II 4 – 6 MILS PER COAT SEE NOTE (4A)		
ALL OTHER FREE FLOOD AREAS, RECESSES AND ACCESS COVERS ABOVE WATERLINE (APPLIES TO FREE FLOOD AREAS, RECESSES, AND VOIDS NOT LISTED ELSEWHERE IN THIS TABLE)	19	SAME AS LINE ONE	SAME AS LINE 4	SAME AS LINE 4	SAME AS LINE 4			
ALL OTHER FREE FLOOD AREAS, RECESSES AND COVERS BELOW WATERLINE (APPLIES TO FREE FLOOD AREAS, RECESSES, AND VOIDS NOT LISTED ELSEWHERE IN THIS TABLE)	20	SAME AS LINE ONE	SAME AS LINE 5	SAME AS LINE 5	SAME AS LINE 5			

TABLE 8 STEEL SURFACES SUBMARINES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
DRY VOIDS	21	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L SEE NOTE (6A)	ONE COAT MIL-DTL-24441 TYPE IV, F-150, 4-6 MILS SEE NOTE (15A)	ONE STRIPE COAT MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (15A)	ONE COAT MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTES (7A) & (15A)			
	22	SAME AS LINE 21	ONE COAT MIL-PRF-23236, TYPE V, CLASS 5 OR 7 4-8 MILS SEE NOTE (15A)	ONE STRIPE COAT MIL-PRF-23236 TYPE V, CLASS 5 OR 7, 4-8 MILS SEE NOTE (15A)	ONE COAT MIL-PRF-23236 TYPE V, CLASS 5 OR 7, 4-8 MILS SEE NOTES (7A) & (15A)			

TABLE 9 STEEL SURFACES SUBMARINES	*LINE*	*A SURFACE PREPARATION*	*B PRIMER*	*C*	*D*	*E BULKHEADS AND OVERHEADS*	*F THERMAL INSULATION*	*G*
INTERIOR SURFACES OF RUDDERS, PLANES, STABILIZERS (SYNTACTIC FILLED VOIDS)	*1*	*HAND TOOL CLEAN SSPC-SP 2*	*2 COATS TT-P-645 F-84 (PRIMER) 1-2 MILS / COAT*	*ONE COAT MIL-DTL-24441 TYPE IV, 4-6 MILS*				
	2	*SAME AS LINE ONE*	*COAT WITH MIL-L-9000 GRADE MS-9250 LUBE OIL*	*ONE COAT PRIMER MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4-8 MILS SEE NOTE (8A)*				