

NAVSEA  
STANDARD ITEM

FY-27

ITEM NO: 009-023  
DATE: 01 OCT 2024  
CATEGORY: I

1. SCOPE:

1.1 Title: Interference; remove and install

2. REFERENCES:

2.1 0948-LP-045-7010, Material Control Standard

2.2 0924-LP-062-0010, Submarine Safety (SUBSAFE) Requirements Manual

2.3 S9086-KC-STM-010/CH-300, Electric Plant-General

2.4 NAVSEA OD32382, Grounding and Bonding Equipment Enclosures, Chassis and Cases, Design and Installation

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

2.6 803-8436636, Studs, Adhesively Mounted

3. REQUIREMENTS:

3.1 Do not remove components from the following systems as interferences, except when the scope of work requires repairs to components of these systems or when specified in the Work Item:

3.1.1 Main steam and catapult systems

3.1.2 Gaseous oxygen piping systems which operate at pressures higher than 100 PSIG, liquid oxygen piping from oxygen plant to the liquid oxygen charging carts, and the overboard drain piping from the liquid oxygen storage plant and spillage drain

3.1.3 Degaussing systems

3.1.4 Electric cables which cannot be removed without cutting

3.1.5 Hydraulic systems

3.1.6 High pressure air systems. High pressure air systems are those systems designed for pressures of 1,000 PSIG or greater.

3.1.7 Support systems (e.g., SCBA Charging and Swimmer and Diver support and protection systems, which supply breathable air.

- 3.1.8 Cryogenic systems
- 3.1.9 Spring hangers
- 3.1.10 Ship's strength members involving structural integrity
- 3.1.11 Halon systems
- 3.1.12 LEVEL I systems in accordance with 2.2
- 3.1.13 Sonar dome pressurization system
- 3.1.14 Passive countermeasure materials
- 3.1.15 Ballistic plating
- 3.1.16 Waveguides
- 3.1.17 Collective Protection System (CPS)
- 3.1.18 MRG Lube oil piping
- 3.1.19 Collection, Holding and Transfer (CHT)
- 3.1.20 Fiber Optic System (Cables)
- 3.1.21 Radar Absorbent Material (RAM)
- 3.1.22 For submarines and SUBSAFE capable ships only, in addition to the systems identified above, SUBSAFE components/systems in accordance with 2.2.
- 3.1.23 For nuclear-powered ships only, in addition to the systems identified above, steam plant systems that carry steam, water, or gas and which introduce these fluids either directly or indirectly into the steam generators, including:
  - 3.1.23.1 Main Steam
  - 3.1.23.2 Steam Generating
  - 3.1.23.3 Feed
  - 3.1.23.4 Condensate
  - 3.1.23.5 Auxiliary Steam/Reduced Pressure Steam
  - 3.1.23.6 Auxiliary Exhaust Steam
  - 3.1.23.7 Gland Seal and Exhaust Steam
  - 3.1.23.8 Bleed Steam
  - 3.1.23.9 High Pressure Drain
  - 3.1.23.10 Reserve Feed (except for reserve feed day tanks in surface ships)

3.1.23.11 Fresh Water Drain/Low Pressure Drain/Turbine Drain Catapult Steam Drain (up to catapult fill/charging valves and associated high-pressure drain system)

3.1.23.12 Catapult Trough Heating and Drain Systems

3.1.23.13 Main Steam Supply to reboiler and reboiler drains to the Deaerating Feed Tank (DFT)

3.1.23.14 Heating steam and condensate return piping to and from distilling units and lithium bromide air conditioners

3.1.23.15 Those portions of the propulsion plant makeup water distribution system downstream of the distiller output or reverse osmosis outlet demineralizer used to supply water directly or indirectly to the steam plant

3.1.23.16 Nitrogen supply system used for sparging of aircraft carrier steam generators

3.1.23.17 Reactor Plant Fresh Water System (RPFW), Propulsion Plant Fresh Water System (PPFW), and Steam Generator Cool down

3.1.23.18 Support systems (such as nitrogen systems, hydrostatic test rigs, and temporary steam generator makeup systems), which add water, steam, or gas directly or indirectly into steam generators

3.1.23.19 Any other systems or components governed by NAVSEA Instruction C 9210.4

3.2 Submit one legible copy, in approved transferrable media, of a report of components of the systems listed in 3.1 that must be removed as interferences and the work is not required by the Work Item, to the SUPERVISOR. The report must list the following information:

3.2.1 Identification of the item to be removed or disturbed:

3.2.1.1 Location/Space

3.2.1.2 Item description (e.g., piping size, valve number, cable identification, gauge number, etc)

3.2.1.3 System

3.2.2 Necessity for the action

3.2.3 Protective measures which will be taken to protect equipment from damage or contamination

3.2.4 Alignment procedures and details for tests that will be accomplished to verify acceptability after installation.

3.3 Visually examine interferences prior to and during removal for previous damage and deterioration.

3.3.1 Submit one legible copy, in approved transferrable media, of a report listing previously damaged and deteriorated interferences to the SUPERVISOR within 5 days after removal.

3.4 Remove interferences.

3.4.1 Protect interferences from damage or loss and prevent contamination of removed components and remaining parts of the system.

3.4.2 Submit one legible copy, in approved transferrable media, of a report listing interferences removed to the SUPERVISOR within 5 days of removal. The report must identify and include the following information for each interference that was disturbed:

3.4.2.1 Location/Space

3.4.2.2 Item description (e.g., piping size, valve number cable identification, gauge number, etc)

3.4.2.3 System

3.4.3 When energized components (e.g., lights, receptacles, sensors) greater than 30 volts are removed for interference and a path to ground will no longer exist, a temporary ground must be installed before the component is disconnected from its permanent ground connection. Verify ground connection exists and that it is securely fastened with metal-to-metal contact in accordance with 2.3.

3.4.3.1 Components will be adequately secured to a permanent structure so that there is no tension/stress on cable/energy source.

3.5 Install interferences removed in 3.4.

3.5.1 Install interferences that were neither reported as previously damaged or deteriorated, nor rendered unsuitable for installation during removal.

3.5.2 Install interferences reported in 3.3.1 in the as-found condition or after authorized repairs have been accomplished.

3.5.3 Install new material in place of material rendered unsuitable for installation during removal or storage.

3.5.3.1 New material must be equal in composition, strength, design, type, and size as existed prior to removal of the interferences.

3.5.3.2 Ground and bond AEGIS combat systems equipment and related electrical equipment enclosures, chassis, and cases in accordance with 2.4.

3.5.4 Accomplish the requirements of 2.5 for system cleanliness.

3.5.5 Welding, fabrication, and inspection requirements must be in accordance with NAVSEA Standard Items (See Note 4.2).

3.5.6 Disturbed joint test requirements must be in accordance with NAVSEA Standard Items (See Note 4.3)

3.5.7 Woodwork requirements must be in accordance with NAVSEA Standard Items (See Note 4.4).

3.5.8 Insulation and lagging requirements must be in accordance with NAVSEA Standard Items (See Note 4.5).

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3.5.9 Install new silicone coated aluminized cloth spray shields on mechanical joints and components in accordance with ASTM F 1138 in place of those removed as interference.

3.5.10 Install new gaskets and assemble in accordance with Section 5 of 2.5 when installing interferences.

3.5.11 Cleaning and painting requirements for each new and disturbed surface must be in accordance with NAVSEA Standard Items (See Note 4.6).

3.5.12 Restore compartment, equipment, and systems labeling.

3.5.13 Deck covering requirements for deck covering removed or damaged as interference must be in accordance with NAVSEA Standard Items (See Note 4.7).

3.5.13.1 New material must be equal to existing in color and composition.

3.5.14 Structural boundary test requirements must be in accordance with NAVSEA Standard Items (See Note 4.8).

3.5.15 Accomplish the requirements of 2.6 for limited applications, subject to SUPERVISOR approval. When Adhesively Mounted Studs are used, each location of each stud and dates of installation must be documented for future maintenance.

3.5.15.1 Submit one legible copy, in approved transferrable media, of a report listing locations and dates of installation of Adhesively Mounted Studs installed to the SUPERVISOR. The report may be used for future maintenance.

#### (V)(G) "STRENGTH AND OPERATIONAL TESTS"

3.6 Align and accomplish appropriate strength, system cleanliness, and operational tests and ensure that the installed interferences perform their normal functions within the system.

3.6.1 Tests must be incorporated into the contractor's Test and Inspection Plan.

#### 4. NOTES:

4.1 An interference is any part of a ship, whether installed or portable, that must be moved or disturbed in the accomplishment of work specified in the Job Order.

4.2 If welding, fabrication, and inspection requirements of 3.5.5 is required; the use of Category II Standard Item 009-012 "Welding, Fabrication, and Inspection Requirements; accomplish" of NAVSEA Standard Items will be specified in the Work Item.

4.3 If testing requirements of 3.5.6 is required; the use of Category II Standard Item 009-071 "Piping System; test" of NAVSEA Standard Items will be specified in the Work Item.

4.4 If woodworking requirements of 3.5.7 is required; the use of Category II Standard Item 009-037 “General Procedure for Woodwork; accomplish” of NAVSEA Standard Items will be specified in the Work Item.

4.5 If insulation and lagging requirements of 3.5.8 is required; the use of Category II Standard Item 009-011 “Insulation and Lagging; accomplish” of NAVSEA Standard Items will be specified in the Work Item.

4.6 If cleaning and painting requirements of 3.5.11 is required; the use of Category II Standard Item 009-032 “Cleaning and Painting Requirements; accomplish” of NAVSEA Standard Items will be specified in the Work Item.

4.7 If deck covering requirements of 3.5.13 is required; the use of Category II Standard Item 009-026 “Deck Covering; accomplish” of NAVSEA Standard Items will be specified in the Work Item.

4.8 If structural boundary test requirements of 3.5.14 is required; the use of Category II Standard Item 009-025 “Structural Boundary Test; accomplish” of NAVSEA Standard Items will be specified in the Work Item.