

**CCGS EARL GREY**  
**SEPTEMBER 2017, DRY-DOCKING AND REFIT**

**VLE-10 HVAC SEATING RENEWAL Revision 1**

## **1. IDENTIFICATION**

The intent of this specification is for the Contractor to renew the main deck HVAC seat.

Contractor must perform this work in conjunction with Section VLE-13 HVAC Upgrade.

## **2. REFERENCES**

### 2.1 REGULATIONS AND STANDARDS

1. The following regulations and standards are applicable to this section:
  - a) Canada Shipping Act 2001;
  - b) TP 11469E Guide to Structural Fire Protection;
  - c) CSA W59-13 – Welded Steel Construction
  - d) CSA W47.1-09 – Certification of companies for fusion welding of steel;
  - e) International Association of Classification Societies (IACS) No. 47 – Shipbuilding and Repair Quality Standard.

### DRAWINGS

Document Number	Description
VNEA2 134-401	General Arrangement as fitted (2 sheets)
VNEA2 236-001	Main Deck Unit Frames 32-39 Centre
VNEA2 236-003	Main Deck Unit Frames 32-39 P&S
VNEA2 317-008	Sewage and Grey Water Diagram
VNEA2 317-008	Sewage and Grey Water Arrangement
VNEA2 379-000	List of Insulation
VNEA2 651-000	Interior Painting
VNEA2 711-000	Joiner Bulkheads & Doors 1 of 4
VNEA2 711-000	Joiner Bulkheads & Doors 2 of 4
VNEA2 711-000	Joiner Bulkheads & Linings 3 of 4
VNEA2 711-000	Joiner Bulkheads & Linings 4 of 4
VNEA2 721-000	Insulation Plan
VNEA2 753-002	Galley and Mess Arrangement
VNEA2 771-000	Deck Coverings

## **3. TECHNICAL**

### 3.1 GENERAL

1. The Contractor must ensure all surrounding areas are not disturbed in this specification and are protected from any damage. Any damage from the “as delivered” condition of the vessel must be repaired at the Contractor’s expense.

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2. The Contractor must remove all existing flooring coverings, cement and floating floor deck covering from the steel deck plating beneath and dispose of in accordance with all Federal, Provincial and Municipal regulations and provide copies of the disposal certificates to the Inspection Authority.
3. Contractor must monitor the air quality of the spaces affected and ventilate to the exterior of the ship if required. Contractor is responsible to provide all additional ventilation equipment required to maintain a suitable work space in accordance with local laws.
4. All measurements provided are for guidance only and should be confirmed by Contractor during the vessel site visit.

**3.2 CERTIFICATIONS**

1. All deck coverings to replace existing must provide an A-60 fire barrier. All materials used must have either Class or TCMSS type approval and suitable for marine use. All material certificates must be submitted to the CGTA prior to installation.
2. Personnel responsible for taking Ultrasonic readings must provide certificates to the CGTA and TCMSS Inspectors, that they are certified to a minimum of Level II of Can/CGSB 48.9712-2000.

**3.3 ELECTRICAL & PLUMBING ISOLATION**

1. The Contractor must use common ship building and repair practices when removing deck covering material. This includes proper lockout and tag out of all associated electrical connections as well as the disconnection of all associated plumbing interfaces. Both electrical and plumbing connections affected during the removal of the floor must be reconnected and demonstrated as operable to the CGTA prior to the contract end.

**4. SCOPE OF REMOVALS AND REPAIRS**

**4.1 HVAC UNIT SEATS**

1. The Contractor must install a seamless epoxy floor under the HVAC unit located on main deck. This epoxy floor must be sloped toward a new deck drain installed during this refit (please refer to Specification VLE-09 Section 4.10). Due to the new sloped floor the Contractor is required to install fixed steel seats for the HVAC unit to sit on providing a level base. The new steel seats may be adapted to fit onto the existing steel seats to avoid welding to the top of the Fuel Oil Day Tank.

**VLE-10 HVAC SEATING RENEWAL (CONTINUED)**

2. The Contractor must ensure the new seat(s) are welded in accordance with TCMSS regulations. Rubber isolation must be installed between the steel seat(s) and the HVAC unit. This rubber isolation must be in the form of 3mm-6mm thick industrial rubber matting cut to match the units footing layout. The new seat(s) must be painted using the same epoxy primer used on the main deck.

**4.2 DECK PLATE FIRE INSULATION, SOUND INSULATION AND FLOORING INSTALLATION**

1. The area below the HVAC unit flooring must consist of a seamless epoxy top coat similar to Terrazzo M supplied by Dex-O-Tex. This epoxy top coat must be similar in colour to the existing flooring. Colour flake and an anti-slip agent must be added to improve the appearance and traction of the product within these wet spaces. The seamless floor must extend up the walls in accordance with the Deck Covering drawing and the finish level must be above the bottom of the side bulkhead. This is necessary to provide additional wall support and seal the bulkhead panels.

**5. Deliverables**

**5.1 CERTIFICATES**

1. Copies of all disposal certificates must be provided to the CGTA.
2. The Contractor must provide to the CGTA the original written acceptance report from TCMSS regarding the A-60 fire insulation boundary for the main deck.
3. The contractor shall provide all documentation to the CGTA showing all products used are suitable for the marine industry and the intended application.

**5.2 REPORTS**

N/A INTENTIONALLY LEFT BLANK

**5.3 DRAWINGS**

1. The Contractor must be responsible for updating all "As Fitted" drawings

**VLE-10 HVAC SEATING RENEWAL (CONTINUED)**

**5.4 MANUALS**

1. The Contractor must supply three sets of product literature for the new deck flooring that includes detailed data on the following:
  - a) Cleaning;
  - b) Maintenance;
  - c) Repair;
  - d) Specifications;
  - e) Cautions and Limitations;
  - f) WHMIS.
2. The maintenance and repair literature is to be that which the O.E.M. distributes to the authorized service centers for use by their technicians.
3. The Contractor must also supply product literature on the epoxy primer used on the steel decking.