VLE-01 MCC UPGRADE REVISION 1

1. IDENTIFICATION

The purpose of this specification item is for the EATON Field Service Representative (FSR) with the assistance of Contractor to remove the identified components on the ship's MCC's, send out for upgrade and assist with their installation upon completion of the upgrade.

2. REFERENCES

2.1 DRAWINGS

Document #	File Name
VNEA2 E-1	Electrical Power Single Line Diagram 1 of 2
VNEA2 E-1	Electrical Power Single Line Diagram 2 of 2

3. TECHNICAL

3.1 GENERAL

1. Contractor must include an allowance of $20,000.00 for the services of an attending EATON FSR and an allowance of $80,000.00 for parts and materials for the required upgrade by EATON service facility. This information must be included in the PSPC data pricing sheet as separate items. FSR will be reimbursed for services, authorized travel and living expenses reasonably and properly incurred in the performance of their work. The allowances must form part of the overall bid and will be adjusted through PWGSC 1379 action upon proof of final invoice.

2. Contractor to include an allowance for 240 hours labour for assisting the FSR in their overall bid. This cost does not include the requirements for Contractor to provide craneage, equipment, fabrication of crates and arrangement for shipment to and from the FSR's facility.

3. The following list of MCC's units must be removed from the vessel by the FSR with assistance from Contractor. Contractor shall fabricate shipping crates and secure each unit in the crates and arrange for shipment to and from the EATON's facility for service;

Contact Information: Eaton Electrical Services & Systems Division
Ed White
Unit 100-32 Troop Avenue,
Dartmouth, NS, Canada,
B3B-1Z1
Mobile **902-210-0068**, Office **902-468-0790**,
email **EdWhite@eaton.com**

VLE-01 MCC UPGRADE (CONTINUED)

1. The upgrades completed by the FSR must consist of OEM components supplied and installed by Eaton. Components to be replaced will be the main contactor/contactors, Overloads, all operational buttons including contact blocks, toggle switches including contact blocks and illuminated indication, such as start/stop/standby. Incandescent luminaries must be replaced with LED technology.

2. The FSR must clean all buckets on each of the listed MCC's prior to commencement of work. The FSR must visually inspect all bucket components and should components other than those listed in this document show signs of fatigue or failure condition a list must be generated and submitted to the CGTA for review. Additional components requiring replacement will be actioned by submitting a PWGSC Form 1379.

3. The circuit breaker in all buckets on each of the listed MCC's must be inspected and tested by the FSR. Should the breaker fail a new Eaton equivalent will be installed and tested, with the additional components requiring replacement being actioned by submitting a PWGSC Form 1379.

4. Prior to removal from the vessel the FSR must test each MCC bucket identified below in this specification to:

    a) Ensure proper operation of the control unit; note any operational anomalies prior to removal.

    b) Identify and note the direction of rotation of those motors related to the appropriate MCC.

5. Upon completion of all work and upon return of the MCC units, FSR with assistance from Contractor must install all units and confirm their operation.

No. 1 Essential MCC

CPP Hydraulic Pump Port	515-3
No 1 Main Engine Prelube Pump	515-6
Stern Tube L/O Pump No 1 Port	515-4
Gearbox Cooling Water Pump (Aft)	516-7
Port Gearbox Stby L/O Pump	515-12

No. 2 Essential MCC

CPP Hydraulic Pump Starboard	516-1
No 2 Main Engine PreLube Pump	516-3
Stern Tube Lube Oil Pump #2	516-5
Gearbox Cooling Water Pump (Fwd)	515-5
Starboard Gearbox Stby L/O Pump	516-13

VLE-01 MCC UPGRADE (CONTINUED)

No. 1 Non-Essential MCC

#1 Main Engine Preheat & Circ Pump	517-4
#2 Main Engine Preheat & Circ Pump	517-6

No. 2 Non-Essential MCC

#3 Main Engine Preheat & Circ Pump	526-2

No. 3 Non-Essential MCC

#4 Main Engine Preheat & Circ Pump	527-2

No. 1 Semi-Essential MCC

#3 Main Engine Prelube Pump	522-1
CPP Hyd Pump Port Stby	522-11

No. 2 Semi-Essential MCC

#4 Main Engine Prelube Pump	523-1
CPP Hyd Pump Stbd Stby	523-8

Auxiliary Landing

Port Mooring Winch/Windless Hyd Pump #1	5S1
Stbd Mooring Winch/Windless Hyd Pump #2	5S2

Emergency Generator Room

Emergency Fire Pump	5E2-4
No. 1 Air Compressor	5E2-6

4. TESTS AND TRIALS

1. Upon completion of the MCC bucket upgrade and installation back into the MCC cabinet, the FSR with assistance from contractor must demonstrate proper operation of each unit and confirm rotation of motors controlled by the associated updated unit to the satisfaction of the CGTA and TCMSS Surveyor.

VLE-01 MCC UPGRADE (CONTINUED)

5. DELIVERABLES

5.1 DOCUMENTATION

1. The FSR and Contractor must deliver all manuals, instruction sheets provided with the supplied equipment to the CGTA.

2. Documentation of all new parts including “part numbers” and “quantities” used must be provided to the CGTA.

3. The FSR must provide a service report for each bucket, including test results in accordance with testing procedures in TP127E, components changed, and the final settings for each breaker to the CGTA.

5.2 DRAWINGS

1. The Contractor must revise all “As Fitted” drawings, if required.