



4720

MEMORANDUM

From: 
N.E. MEISTER, CDR
CG ELC (015)

Reply to ELC-015
Attn of: LTJG Serb
(410) 762-6603

To: Commanding Officer, USCGC HEALY (WAGB 20)

Subj: RECEIPT OF ENGINEERING CHANGE REQUEST (ECR)

Ref: (a) CGC HEALY ECR for SCIENCE COMPUTER LAB RENOVATION dated 06
December, 2007
(b) Naval Engineering Manual, Commandant's Instruction M9000.6E

1. This acknowledges receipt of reference (a) requesting Engineering Change of the Science Computer Lab. This ECR has been assigned ELC PROJECTS case file number WAGB-420-06-017 for ELC action and tracking responsibilities. It can be viewed from the ELC web page under Engineering Changes (<http://cgweb.elcbalt.uscg.mil>).

2. Your request has been considered and has been determined not to fall into the category of an engineering change, although changes made within the lab do potentially change the engineering configuration of the ship. Additionally, it was noted that, although not mentioned in the ECR, the attached enclosures show the addition of windows in the Computer Lab. The addition of windows or doors in any space would constitute a Platform Engineering Change IAW reference (b). If such a change is desired in the future, please submit a separate Platform EC detailing those requested changes. Because this ECR has been deemed to not fall into the category of an engineering change, this memo is two fold; it will both, document the receipt and disposition of the referenced ECR and detail limits to which the HEALY's Science Computer Lab may be modified without requiring further engineering calculations or engineering changes.

3. All changes made must first be authorized by HEALY's Engineering Officer and any change required outside of the scope of this letter or any change that falls under the category of an EC in accordance with the NEM shall be sent up the chain to ELC for further action. Documentation of all changes shall be maintained and any changes that affect space drawings will need updated red line drawings sent to ELC so as to update NE-TIMS.

4. The four major constraints for the Science Computer lab are electrical load, electronics/networking, structural and stability guidance which are detailed below.

a. Electrical Load: The Science Computer Lab is serviced by one power panel, "P131", which is capable of distributing 105 amperes of 3 phase power via sixteen (16) separate circuits. The various connected loads per phases AB, BC, and CA amount to approximately 83, 68, and 104 amperes respectively. The cutter is not to exceed the designed power constraints of 105 amperes per phase and is not authorized to route any additional power from other panels into the Science Computer Lab. Additionally the load applied to each circuit breaker shall not exceed 80% of its rating and all circuit breaker ratings shall be maintained in compliance with IEEE Std 45-2002, Section 8.6.

b. Electronics/Networking: There shall be no additional network interfaces to any of HEALY's networks with the exception of the science system network without further authorization from either ELC or servicing ESU. Any additional network infrastructure needed shall be confined to science spaces aft of frame 117.

c. Structural/Configuration:

(1) Structural Changes: There shall be no additional penetrations in any structural or watertight bulkhead nor in the skin, deck or overhead of the ship without further approval. Additionally no structural frame members or other load bearing structures shall be removed or otherwise altered so as to change its structural characteristics without further approval of servicing MLC and ELC.

(2) Compartment Check off List changes: Any changes to locations of items listed on the Compartment Check off List (CCOL) shall be documented and CCOL updated accordingly. No items on the CCOL may be removed from or added to the space so as to not alter HEALY's DC Book, Damage Control Drawings or readiness to combat a damage control casualty. Additionally CCOL copies shall remain posted at each entrance IAW reference (b), Chapter 077, Sec. F.2.e.

d. Stability Guidelines: With regard to weight & moment, all weights added and removed from the space shall be recorded, including weights, location within the space and part number if applicable along with resulting weight and moment calculations computed using the ship's stability program (FCCS). In addition, any weight addition in excess of 2,000lbs shall be referred to ELC for structural and stability analysis prior to installation.

5. The Naval Engineering Program commends your unit for following this documented process, but due to the number of degrading engineering systems failing fleet wide, coupled with minimal resources, the Naval Engineering Community is forced to be selective with where we focus our efforts. Should this ECR impact your operational effectiveness, I encourage you to engage MLCPac for further guidance.

6. Thank you for your initiative and sharing your ideas to help further improve HEALY.

#

Copy: COMDT (G-45), (G-37RCU), (G-AWP)
MLCPAC (vr)