

# Safety Alert

Date: September 24, 2009

U.S. Department of  
Homeland Security  
**United States  
Coast Guard**



## UNAPPROVED EPIRB BATTERY REPLACEMENTS

Fishing vessel safety staff in the Coast Guard's Seventh District has received at least three reports in the past few months regarding unapproved replacements of 406 EPIRB batteries by servicing companies who are unrelated to, and unsupported by, the EPIRB manufacturer. These unauthorized battery installations would likely result in a failure of this critical item of lifesaving equipment, and as such are not in compliance with the operational readiness requirements of 46 CFR.

The following is a typical excerpt from an EPIRB manufacturer report:

“The unit was opened and a foreign battery was found inside. The battery was built up using (manufacturer) fuses and wiring salvaged from the original (manufacturer) battery. They then covered their battery with the original (manufacturer) yellow heat shrink, (manufacturer) labels and taped it together. This was then covered with a black heat shrink wrap. The connections were soldered and not spot welded, as is required by the design and is performed in (manufacturer) production. The battery measured 8.7 volts. Our batteries read 9+ volts when they are new. This battery was installed one week prior to it being brought into (manufacturer).

There was also evidence of water intrusion due to the crack in the top cap, which (servicing company) did not recognize as they are not trained in these matters.

The EPIRB was condemned by (manufacturer) and the customer was notified when he came to pick the unit up.”

Every approved (i.e., type accepted by the FCC) EPIRB is tested during its approval process using a battery, or batteries, specified by the manufacturer. Approved EPIRBs come with a user's manual which describes battery maintenance and replacement procedures. In order for the EPIRB to remain within the conditions of its approval, the manufacturer's instructions in the user's manual must be adhered to. To ensure that replacement batteries are of the same type with which the EPIRB was approved, and are correctly installed, manufacturers typically specify that battery replacements only be done by the manufacturer or a manufacturer-approved shop.

In order for an EPIRB to retain its approved status it must continue to be serviceable in its original, approved state. If any change is made to the EPIRB that causes it to be different from the way it was approved (including batteries other than as specified by the manufacturer), it then ceases to be considered an approved item, and may not be considered adequate to meet carriage requirements.

## **UNAPPROVED EPIRB BATTERY REPLACEMENT**

EPIRB owners and servicing facilities need to be aware of the compliance implications and potential for equipment failure stemming from any EPIRB modification or unauthorized battery replacement.

Questions regarding the information presented in this alert may be addressed to LCDR Vince Gamma of the U.S. Coast Guard Headquarters Lifesaving & Fire Safety Standards Division at 202.372.1396 or [Vincent.A.Gamma@uscg.mil](mailto:Vincent.A.Gamma@uscg.mil).