

AUGUST 17, 2020 PVA INDUSTRY DAY Q&A SESSION

There were a number of unanswered or partially answered questions asked during the Q&A portion of the Industry Day. Below, please find a list of those questions and their answers. Some questions have been rephrased for clarity. If you have additional questions, or questions about anything else discussed during the Industry Day, please send them to msc@uscg.mil.

Can plan review letters (not the plans themselves, just the letters stating which plans are approved) be sent to people other than the original submitters? If so, who can receive those letters?

MSC correspondence is addressed directly to the submitter that requested review. Correspondence is kept in MSC records and also forwarded to the local OCMI. We recommend that such requests for records or information should first be directed to the local OCMI. Records requests to MSC from current vessel owners for correspondence addressed to another party must be in accordance with FOIA (Freedom of Information Act) procedures. Vessel plans are considered proprietary information and are not usually releasable to a third party. The local OCMI is the best source of assistance in obtaining relevant vessel information in these cases.

Under what conditions can UL 1077 circuit breakers be used, and what is the regulatory basis for any usage that is allowed?

Per 46 CFR 183.380(m) and 46 CFR 120.380(m), circuit breakers on small passenger vessels must meet UL 489, or other standard specified by the Commandant. Many people may be aware that G-MOC Policy letter 11-97 authorized the use of circuit breakers meeting UL 1077 under certain conditions. That policy letter has since been cancelled by the Office of Commercial Vessel Compliance. However, the Marine Safety Manual, Volume II, now addresses circuit breakers that are listed by a nationally recognized testing laboratory as meeting UL 1077. Their use is authorized for DC systems under 50 volts, provided that they are installed in a panelboard, and that there is a UL-listed cartridge-type fuse or UL 489 certified breaker protecting the main feeder to that panelboard. Other uses of UL 1077 circuit breakers, such as in AC systems, will not be accepted.

What are the requirements for the use of UL-compliant wire connectors, and what do people need to know about how those requirements are interpreted by MSC?

The 1992 version of UL 486A is referenced in 46 CFR 183.340(i). This standard has since been updated, and in the process, split into parts UL486A-486B and UL486C. Typically, wiring connections and splicing are not shown on a one-line diagram. Should unique aspects of your plans make it appropriate to show that level of detail, MSC will accept wire connectors and splicing arrangements that conform to the applicable current standards as meeting the regulations as written, as those wiring connectors and splicing will meet or exceed the requirements of the UL 486A 1992 version.

What guidance does MSC have for submitters and OCMI's about LED lighting where the bulb connectors are too small to connect with 14 AWG wiring?

Per 46 CFR 183.340(c), all power and lighting conductors must be 14 AWG. All lighting should demonstrate compliance with this requirement. Any arrangements that do not comply with this requirement can only be approved by the OCMI via special consideration, under 46 CFR 175.550, or by MSC as an equivalency, under 46 CFR 175.540(a). Subchapter T contains no authority for waivers.

When switchboards come from the switchboard manufacturer with built-in fuses, such as for ground detection, with no disconnect switches, what does MSC expect the vessel owner or plan submitter to do to address that?

Per 46 CFR 177.202(b), the OCMI determines which plans are required to be submitted for each vessel. Typically, a one-line diagram is required. On a one-line diagram, it is sufficient to show that ground detection is of the appropriate type- in other words, a current transformer around a ground-neutral connection going to an ammeter, or three lights going to ground, both with normally closed switches. If the OCMI has also required you to submit a switchboard drawing, however, full details of the ground detection circuit must be shown on that plan. This should include overcurrent protection, as 46 CFR 183.380(c) states that indicator circuits must be protected by an overcurrent device. If a fuse is used, then per 46 CFR 183.380(j), disconnect means must be provided. The applicability of this requirement to indicator circuits is reinforced by 46 CFR 183.330(i), which sets requirements for electrical shielding of disconnect devices for indicator circuits.

Do electronic switchgear gauges on display screens fulfill the requirements for ammeters, voltmeters, and frequency meters, and are there any conditions attached to their use?

The requirements of 46 CFR 183.320(c) do not specify the use of mechanical gauges, only meters. Electrical gauges on switchgear display screens will be accepted as fulfilling the above requirement.

Is it possible to find commercially available instantaneous-trip only 12V DC circuit breakers that comply with the steering pump protection requirements?

Yes, there are commercially available two- or three-pole instantaneous-trip DC circuit breakers. These circuit breakers are larger and bulkier than the miniature circuit breakers most commonly used on T-boats, and are made by different manufacturers.

Why does MSC require that the bill of materials list specific material information? In the past, a plan did not need to indicate a brand or manufacturer, only its applicable features. The attending marine inspector would then verify the component met the specifications on the drawing regardless of manufacturer.

In the past, local units may have been comfortable verifying that electrical components had the appropriate approvals for their intended service, but field units now typically rely on MSC for this work. A general statement attesting that the circuit breaker selected will meet UL 489 is not sufficient for MSC to verify compliance with the regulations. If your local field unit is comfortable performing this design verification themselves and decide to approve the plans

locally, they will not need to be sent to MSC.

Owners often do not have plans for existing vessels when MSC or the OCMI asks for plans. How can submitters go about looking for old plans?

Plans will likely have been stored in more than one place during initial approval. Unfortunately, plans can be lost or damaged over the years, so it may be necessary to check more than one place, and some plans may not still be in storage anywhere. First, MSC can look through our electronic files, which date back to approximately the late 1990s, and reliably to 2008. If previously approved plans aren't found there, there could possibly be copies in MSC's paper files, or the local OCMI's file room. The last possible place to check for older plans is the Federal Records Center (FRC), although be warned that requests to the FRC, which can take several weeks to process, rarely provide positive outcomes.