

Marine Safety Information Bulletin Eleventh District

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Power Strips and Non-Marine Grade Wiring are Potential Sources of Fire Aboard Commercial Fishing Vessels

A recent catastrophic fire aboard a commercial fishing vessel highlights the risk of electrical devices that are not properly constructed, insulated, or grounded for specific use in the marine environment. In this specific case, the fire was directly attributed to the use of non-marine grade wiring and overloaded power strips.



These images are from a recent investigation of a catastrophic fire onboard a commercial fishing vessel. The image on the far left shows the bridge area where the fire originated. The image on the top right shows the wiring condition of the bridge console on a sister vessel. All wiring is household and not marine grade. A large power strip and battery are also present. The overloaded wiring in the bridge console is the suspected source of ignition. The bottom right images show remnants of plywood cabinetry directly below the bridge console, which contained improperly stored combustibles such as paint and welding rods. This is suspected as the initial fuel source, contributing to the fire's rapid spread.

Power strips can overheat and result in electrical failure causing a serious fire hazard to your vessel. The hazard is compounded when a vessel's wiring does not meet professional marine standards. The Coast Guard recommends operators avoid the jury-rigging of electrical equipment and to engage a certified marine electrician if you have concerns about your vessel's electrical configuration or loading. Please note that there is no official Underwriters Laboratory (UL) standard for marine-use power strips, despite numerous retailers advertising "UL Marine 1449." Operators should check power strips for compatibility with the vessel's electrical system before use, only use one power strip per single duplex outlet, and never daisy-chain power strips. To further reduce the risk of fire, operators should ensure good air circulation around power strips, prevent their use in excessively humid or moist areas, keep unplugged when not in use, and remove from service if it is hot to the touch. If your vessel operations require excessive use of power strips, installation of additional permanent components such as distribution panels, breakers, cabling, and/or receptacles should be considered.

For questions concerning this Marine Safety Information Bulletin, please contact the District Eleven Investigations and Inspections Branch by email at dl1-smb-dpi@uscg.mil.