



PRESS RELEASE

Maritime Technologies Forum Releases New Report on Safe Carriage of Electric Vehicles

Addressing Safety Concerns in Maritime Transport of Electric Vehicles

MARCH.10.2025. HOUSTON The Maritime Technologies Forum (MTF) has today published a comprehensive report titled "Safe Carriage of Electric Vehicles," addressing the critical issue of transporting electric vehicles (EVs) on Pure Car and Truck Carrier (PCTC) vessels.

With the increasing number of EVs being transported on vessels and rising safety concerns regarding onboard EV fires, the industry needs to be better prepared to detect, prevent and react to fires on board. Currently, there are no international regulations specifically dedicated to the safe carriage of EVs. While some national and regional governmental organizations have issued their own guidelines, the IMO is still in the process of developing mandatory regulations for the transportation of new energy vehicles, including EVs, with a target completion year of 2027.

This latest report offers detailed insights into the characteristics of EV fires and provides a framework for considerations necessary to supplement the safe carriage of EVs. The report further highlights the necessity of measures such related to early detection, prevention of fire spread, firefighting, evacuation, training, and drills.

Key Takeaways from the report:

- **Early Detection:** The importance of detecting heated EV batteries (EVBs) early, potentially through a Battery Management System (BMS) on each vehicle that can release alarms and send alerts to the ship's systems.
- **Prevention of Explosion:** Addressing the release of flammable gases during thermal runaway and the need for explosion-proof electrical equipment on the upper deck.
- **Fire Protection and Prevention of Fire Spread:** Emphasizing the isolation of fires, cooling of EVs, and the need for enhanced structural fire protection to ensure safe evacuation of the crew
- **Manual Firefighting:** Portable firefighting equipment should be deployed in the early stages of a fire and removing excess water during operations will be important to maintain vessel stability.
- **Fixed Firefighting Systems:** The comparative review of the characteristics of fixed fire extinguishing systems in vehicle space, as required by SOLAS II-2/Reg.20, was made in an impartial manner, as they each have various advantages and disadvantages.
- **Safety of Crew During Firefighting:** Highlighting the importance of understanding fire characteristics and car deck obstructions to proceed with manual firefighting and ensure crew safety during firefighting operations.

- **Safety Management System – Training and Drill:** The Safety Management System (SMS) for PCTCs carrying EVs should be strengthened to address characteristics of EVs and EV fires.

"This report is a significant step toward safer transportation of electric vehicles," said Lars Lippuner, Director of UK Customer Maritime Services at the UK Maritime and Coastguard Agency (MCA). "Our goal with this report is to provide the industry with the necessary information to develop effective regulations and safety measures."

Hiroaki Sakashita, President & CEO, ClassNK, added, "By addressing the unique challenges posed by EV fires, we aim to enhance the safety of maritime operations and protect crews, ships and cargoes. This report serves as a starting point for the development of safe carriage practices for EVs and aims to provide valuable information to regulators and industry stakeholders for further development."

View the full report by downloading [here](#).

Please join us for an upcoming seminar on 27 March 2025 during Singapore Maritime Week where we will discuss the findings and guidelines from this report. Register by clicking [here](#).

About MTF

MTF is a forum of Flag States and Classification Societies, established to provide technical and regulatory expertise to benefit the maritime industry. The role of the Forum is to work together on research that it publishes to the maritime industry and draw on regulatory expertise to be able to offer unbiased advice to the shipping sector. It seeks to give guidance on the use of alternative fuels and increased levels of automation in the industry. Furthermore, it allows for the safe testing and adoption of new technologies and it helps shape world-leading regulation.

The Flag State administrations include Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan; the Norwegian Maritime Authority; the Maritime and Coastguard Agency, United Kingdom; and the Maritime and Port Authority of Singapore (MPA). The Classification Society members are ABS, DNV, LR and ClassNK.

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