

MSC.550 & MSC.555 AMENDMENTS

New fire safety requirements for RoRo-passenger (RoPax) vessels

The MSC.550(108) and MSC.555(108) amendments introduce updated fire safety requirements for RoRo passenger ships, with increased focus on fire detection, monitoring, and firefighting in vehicle and RoRo spaces.

For shipowners and operators, the new regulations may require upgrades to existing fire detection and monitoring systems. Consilium supports both retrofit and newbuild projects with approved fire detection and video monitoring solutions designed to meet the updated requirements.

Which vessels are affected?

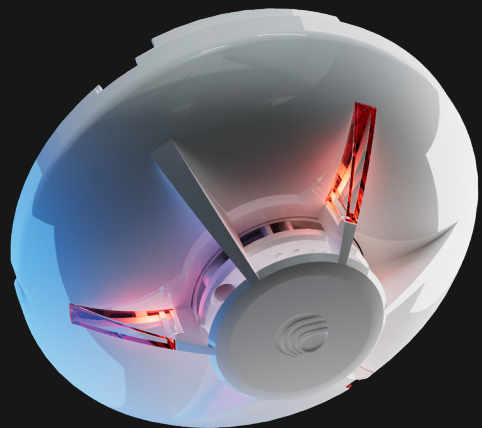
- New RoRo passenger ships
 - Vessels with keel laid on or after 1 January 2026 must comply with updated SOLAS Chapter II-2 and FSS Code requirements from construction and delivery.
- Existing RoRo passenger ships
 - Vessels built before 1 January 2026 must be upgraded no later than the first survey on or after 1 January 2028.

Heat detection is now mandatory

A key change in SOLAS Regulation II-2/20 as adopted by MSC.550(108) is the requirement for both smoke and heat detection in vehicle, special category, and RoRo spaces. Previous regulations primarily required smoke detection.

Fixed fire detection and alarm systems must rapidly detect fire under normal ventilation conditions. The Administration may accept linear heat detectors for heat detection.

Consilium recommends retrofitting existing systems in vehicle, special category, and RoRo spaces with combined smoke and heat detectors. Our approved solutions can help operators achieve compliance while minimizing vessel downtime and disruption to operations.



Weather decks

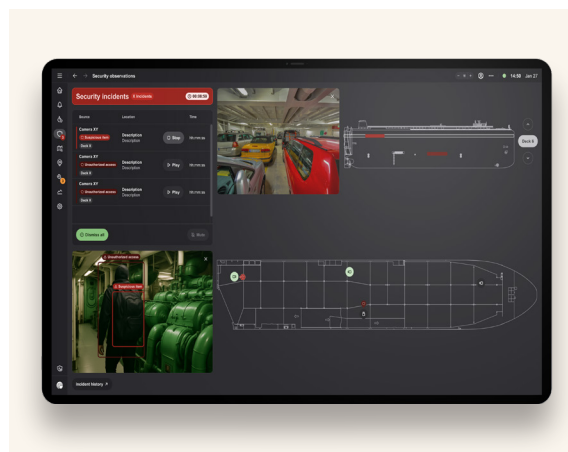
MSC 550 introduces specific fire detection requirements for weather decks used for vehicles. Systems must enable rapid fire detection anywhere on deck, considering environmental conditions, cargo obstruction, and operations. Detector type, placement, and spacing must be approved by the Administration. Operational settings may vary during loading, unloading, and voyage to reduce false alarms.

Consilium recommends flame detectors for fast and reliable detection on weather decks. Combined with SensEye video monitoring, operators gain continuous visual verification, improved situational awareness, and faster decision-making during critical events.

Video monitoring

MSC.550 introduces new requirements for video monitoring in vehicle, special category, and RoRo spaces. These systems are intended to enable continuous monitoring of cargo areas and rapid identification of fire locations through playback and visual verification. Cameras must provide full coverage of the space, including over vehicles and cargo after loading.

To support these requirements, Consilium recommends the SensEye smart camera system, designed to work in close integration with fire detection systems and the SMiG safety management system. SensEye helps crews verify incidents faster, locate fire sources more quickly, and improve response times during emergencies.



Amendments to spacing of detectors

Amendments have been made to paragraph 2.5 of Chapter 7 and paragraphs 2.3.1, 2.4.2.2 and 2.5.1 of Chapter 9 of the FSS Code, as adopted in MSC.555(108).

These changes support updated SOLAS regulation II-2/20 and strengthen design requirements for fixed fire detection and alarm systems, including revised detector spacing rules.

Type of detector	Maximum floor area per detector (m ²)	Maximum distance apart between centers (m)	Maximum distance away from bulkheads (m)
Heat	37	9	4.5
Smoke	74	11	5.5
Combined smoke and heat	74	9	4.5

SOLAS II-2 Reg. 20.4.1.6 states that for passenger ships constructed before 1 January 2026, heat detectors shall comply with the spacing and coverage requirements applicable to smoke detectors.

This means that when upgrading an existing smoke detection system to smoke + heat detection, no additional spacing adjustment is normally required.

Consilium recommends that shipowners verify the applicable requirements with their Flag Administration.

Alternative spacing may be permitted if test data confirms detectors maintain required performance and functionality.

Why Consilium?

- Approved solutions for MSC.550 & MSC.555 compliance
- Retrofit expertise for existing fleets
- Integration with existing fire detection and safety systems
- SensEye video monitoring and visual verification
- Global service and support network
- Support with flag-state and class requirements
- Reduced installation downtime

Need support with compliance? Consilium can assess your vessel, recommend the required upgrades, and support implementation for both retrofit and newbuild projects. Contact your local Consilium company for a compliance assessment.



Connect with
your local
partner