

# MSC Guidelines for Review of Refrigerators

Procedure Number: SOLAS-37

Revision Date: 4/6/2016

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## References

- SOLAS II-2/9.2.2.3.2(11) (previously II-2/26.2.2(11))
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## Contact Information

If you have any questions or comments concerning this document, please contact the Marine Safety Center by e-mail or phone. Please refer to Procedure Number: **SOLAS-37**.

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## Reference Text

"(11) Auxiliary machinery spaces, cargo spaces, cargo and other oil tanks and other similar spaces of moderate fire risk: Refrigerated chambers."

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## Guidance

We expect detection and suppression to be installed within the type-11 refrigerator boundaries. If the type-11 refrigerated space is fully enclosed within a galley boundary then the additional door requirements normally required for galley boundaries are not expected. Otherwise, the type-11 boundary may enclose multiple refrigerated chambers with the exception of areas that will be normally manned or used for non-refrigerated storage. In which case, the non-refrigerated space should be categorized as a type-13. In cases where groups of spaces are enclosed within one category 11 boundary and an area falls into the above non-refrigerated category, the category 11 designation may be maintained so long as A-class boundaries are provided between the area in question and any refrigerated chamber and adequate escape is available for manned spaces (workshops, food prep areas, etc). The drawing below gives generic examples of acceptable arrangements.

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## Background

Walk-in, or non-portable, refrigerated spaces are essentially store-rooms, or, if used to process food stuffs, a work space. Portable refrigerated units such as freestanding or built-into-the-wall appliance (refrigerators in cabins, type-9 pantries, etc) do not fall under this broad category. While SOLAS allows refrigerated spaces to be treated as type-11 spaces, it is unclear how to address fire suppression and detection for these spaces. Because a refrigerator is used to store combustibles, fire detection and suppression should be provided. Two arrangements in particular are of concern. The first is the SOLAS requirements for doors in galley boundaries (i.e., walk-in refrigerators located adjacent to or within a galley). In this case, walk-in refrigerators located entirely within the SFP boundary of the galley should not be required to meet the additional galley boundary door requirements. The second concern involves the arrangement of multiple walk-in refrigerators in a common type-11 boundary. While this arrangement would typically be acceptable because the spaces are adjacent and common-use, sometimes these refrigerators open into a common space or other area that could be used as non-refrigerated storage or a workshop. Because escape is generally not an issue from grouped or multiple walk-in refrigerators these common/other spaces should be protected as individual type-13 spaces.

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