

MSC Guidelines for Review of General Arrangements

(Subchapters H, I, K, R, & U)

Procedure Number: H2-08

Revision Date: 1/5/2018

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Purpose:

This Plan Review Guide provides information on the review and approval of General Construction and Arrangements for vessel inspected under Title 46, Code of Federal Regulations (CFR), Subchapters H (Passenger Vessels), I (Cargo and Miscellaneous Vessels), K (Small Passenger Vessels Carrying more than 150 Passengers or with Overnight Accommodations for More than 49 Passengers), R (Nautical Schools) and U (Oceanographic Research Vessels).

References:

- a. 46 CFR Subchapter H, Part 72, "Construction and Arrangement"
 - b. 46 CFR Subchapter I, Part 92, "Construction and Arrangement"
 - c. 46 CFR Subchapter K, Part 116, "Construction and Arrangement"
 - d. 46 CFR Subchapter R, Parts 167-169
 - e. 46 CFR Subchapter U, Part 190, "Construction and Arrangement"
 - f. 46 CFR Subchapter S, "Subdivision & Stability"
 - g. MTN 01-95, "Permissible Locations of Class 1 Watertight Doors"
 - h. Policy File Memorandum 2-89, "Location of Watertight Bulkheads on Passenger Vessels"
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Contact Information:

If you have any questions or comments concerning this document, please contact the Marine Safety Center (MSC) by email or phone. Please refer to the Procedure Number H2-08.

Email: MSC@uscg.mil

Phone: 202-795-6730

Website: <http://www.dco.uscg.mil/msc>

Responsibilities:

Using applicable portions of references (a) through (h), the submitter shall provide sufficient documentation and plans to indicate compliance with the applicable requirements. Means of Escape (MOE), Structural Fire Protection (SFP), Emergency Evacuation Plans (EEP), and Fire Control Plans (FCP) contain similar and related information and should be submitted and reviewed together to reduce duplication of effort and to ensure consistency between these plans.

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General Guidance:

- Ensure watertight doors are in permissible locations:
 - Class I watertight doors – ensure compliance with:
 - 46 CFR 170.255, and
 - Reference (g)
 - Class II watertight doors – ensure compliance with 46 CFR 170.260.
 - Class III watertight doors – ensure compliance with 46 CFR 170.265.
- Ensure crew quarters are not located farther forward in the vessel than a vertical plane located at 5% of the vessel's length abaft the stem, or that no section of the deckhead of the crew spaces is below the deepest load line. [46 CFR 72.20-10, 92.20-10, 169.317(a), 190.20-10].
 - For vessels not in ocean or coastwise service, the distance abaft the stem need not exceed 28 feet.
- Determine if a hospital space is required [46 CFR 72.20-35, 92.20-35, 167.50-1, 168.15-35, 190.20-35].
- Verify the space containing the emergency source of power is not adjacent to machinery spaces of Category A (including incinerator rooms) [112.05-5(e)].
- Verify the space containing the emergency source of power is readily accessible from the open deck [112.05-5(d)].
- Subchapter K vessels over 65 feet and carrying more than 600 passengers or overnight accommodations for more than 49 passengers: Verify that a final emergency power source is installed outside of the machinery space [46 CFR 120.312]

Passenger Vessels Only

- For passenger quarters on Subchapter H and K vessels, ensure the deck forming the deckhead between adjacent watertight bulkheads is not below the deepest load line. [46 CFR 72.25-10 & 116.800(e)]
- Ensure watertight doors are in permissible locations [Subchapter S, Subpart H]:
 - Doors must be located in the bulkhead and as far inboard as practicable. [46 CFR 171.112]
 - No more than one door may be fitted in a main transverse watertight bulkhead (MTWB) with spaces containing the following [46 CFR 171.112(b)]:

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- Main & auxiliary propulsion machinery.
 - Propulsion boilers.
 - Permanent bunkers.
 - Does not include doors to a bunker or shaft alley.
- Determine watertight subdivision standard [46 CFR 171.060]
 - The following vessels must comply with Type I subdivision requirements:
 - Vessels greater than 100 GT on an international voyage; or
 - Vessels greater than 150 GT in ocean service.
 - Vessels not included above must meet Type II subdivision.
 - Ensure the distance between MTWBs comply with the applicable subdivision requirements:
 - Vessels required to comply with Type I subdivision requirements must comply with 46 CFR 171.065, 171.067, 171.068.
 - Vessels required to comply with Type II subdivision requirements must comply with 46 CFR 171.070, 171.073.
 - Ensure the vessel complies with the applicable collision bulkhead requirements of 46 CFR 171.085.
 - Ensure the vessel complies with the applicable aft peak bulkhead requirements of 46 CFR 171.090.
 - The aftermost MTWB need not be more than 5% forward of the Length Between Perpendiculars [Reference (h)].
 - Ensure the vessel complies with the applicable machinery space bulkhead requirements of 46 CFR 171.095.
 - Ensure the vessel complies with the applicable shaft tunnel and stern tube requirements of 46 CFR 171.100.
 - If the vessel design incorporates a double bottom, ensure it complies with the requirements of 46 CFR 171.105-109.
 - If the vessel is equipped with trunks, ensure they comply with the requirements of 46 CFR 171.113.

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- Ensure main vertical zone lengths comply with the requirements of 46 CFR 72.05-10 and 116.415(d). See Navigation and Vessel Inspection Circular (NVIC) No. 8-93 for vessels incorporating long MVZs.
- Ensure each MVZ is served by a Type 1 stairtower with access to ALL required decks per 46 CFR 72.05-20(e) or 116.438(a) & (m).
- Ensure compliance with the accommodation requirements of 46 CFR 72.20 and 72.25, or Part 116, Subparts G & H.
- Ensure compliance with the applicable rails and guards requirements, if indicated [46 CFR 72.25 or 116, Subpart I].
- For vessels incorporating balconies or atriums, see 46 CFR 116.439 or 116.440 for specific requirements.

Cargo & Oceanographic Research Vessels Only

- Ensure compliance with the accommodation requirements of 46 CFR 92.20 or 190.20.
- Ensure compliance with the applicable rails and guards requirements, if indicated [46 CFR 92.25 or 190.25].

Nautical School Ships Only

- Ensure the distance between main transverse watertight bulkheads comply with the applicable subdivision requirements:
 - Public nautical school ships: 46 CFR 173.051(b) [171.070(e)].
 - Civilian nautical school ships: 46 CFR 173.052 [171.060].
 - Sailing school vessels: 46 CFR 173.053.
- Ensure compliance with the accommodation requirements of 46 CFR 168.15 or 46 CFR 169.317.
- Ensure compliance with the applicable rails and guards requirements, if indicated [46 CFR 169.327].

Disclaimer:

This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is not intended to nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general

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public, and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements. You can use an alternative approach for complying with these requirements if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative, you may contact the Marine Safety Center (MSC), the unit responsible for implementing this guidance.