

MSC Guidelines for Review of Stability for Sailing School Vessels (R)

Procedure Number: H1-17

Revision Date: 06/08/2011


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References:

- a. 46 CFR Subchapter R, Part 169
- b. 46 CFR Subchapter S, Parts 170, 171, 173
- c. Marine Safety Manual (MSM), Vol. IV, Sections 6.E.3

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: H1-17.

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Required Plans for Review:

Check that the following items are included in the submittal package:

General Arrangement, and profiles (with compartmentation)

Outboard Profile

Location and extent of watertight bulkheads including collision bulkhead

Location and extent of bulkhead deck

Watertight and weathertight doors and similar closures

Weather deck freeing port and/or scupper size and locations (as applicable)

Downflooding points and other openings into the hull

Lines plan or computerized hull model file(s) (GHS is preferred)

Hydrostatics or Curves of Form

Tank Capacity Tables

Foam flotation material information (if applicable)

Calculation of light ship values from stability test data

Sail Plan

- Ensure that sail areas used in stability analysis match sail areas shown on the sail plan.

Fixed Ballast Plan or Listing (if applicable)

- Ensure that fixed ballast shown on ballast plan or listing matches the fixed ballast used in lightship calculation.

General Review Guidance:

If the vessel's stability is being reviewed under Navigation and Vessel Inspection Circular (NVIC) No. 3-97, "Stability Related Review Performed by the American Bureau of Shipping for U.S. Flag Vessels," then MSC review of stability items is not required.

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Passenger Weight Guidance:

All passengers must be assumed to be standing in order to check the worst case Vertical Center of Gravity (VCG) condition. For all vessels built or having undergone a major conversion after March 14, 2011 the VCG for all passengers must be at least 39 inches (1 meter) above the highest deck to which they are allowed access. For all other vessels, the VCG for all passengers must be at least 36 inches above the highest deck to which they are allowed access. The average weight of a passenger is assumed to be 185 pounds per person in accordance with 46 CFR 170.090 (d)(1).

Intact Stability:

Ensure that the vessel complies with the requirements of Subchapters S and R. Include the following items in the submittal package:

- ❑ Calculations demonstrating compliance with 46 CFR 170.170 (Weather Criteria) (Bare Poles for vessels with auxiliary engines and storm sail arrangement for vessels with no auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 170.173 (Righting Energy Criteria) (only if vessel has auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 171.050 (Passenger Heel Criteria) (only if vessel has auxiliary power)
- ❑ Calculations demonstrating compliance with 46 CFR 171.055 (Intact Stability) as modified by 46 CFR 173.063
- ❑ Location of downflooding points

Ensure drainage of weather decks is in accordance with 46 CFR 178 Subpart D

Damage Stability/ Subdivision:

Ensure that the vessel complies with the requirements of Subchapters S and R. Include the following items in the submittal package for vessels of any length carrying more than 30 persons:

- ❑ Calculations demonstrating compliance with 46 CFR 173.054 (new vessels) or 173.055 (existing vessels) as appropriate (Subdivision and Damage Stability).

Ensure that the correct compartments have been damaged for one-compartment damage in the damage stability analysis.

Ensure collision bulkhead location is in compliance with 46 CFR 179.210.

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Hull Model: MSC will generate a hull model in GHS from the lines, offsets, or provided computer model information to verify the stability of the vessel.

Special Consideration: In accordance with 46 CFR 169.112, the cognizant Officer in Charge, Marine Inspection (OCMI) may give special consideration to authorizing departures from the specific requirements of 46 CFR Subchapter R when unusual circumstances or arrangements warrant such departures and an equivalent level of safety is provided. The OCMI of each marine inspection zone in which the vessel intends to operate must approve any special consideration granted to the vessel.

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 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, the unit responsible for implementing this guidance.