

REVIEW OF LIFTBOAT SUBMISSIONS TO THE MARINE SAFETY CENTER

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Purpose

This Plan Review Guideline (PRG) is for the submission of liftboat general arrangements, stability, structures, and provides basic guidance on other types of submissions for approval by the Marine Safety Center.

Contact Information

If you have any questions or comments concerning this document, please contact the Marine Safety Center (MSC) by e-mail or phone. Please refer to Procedure Number C2-30.

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1. Applicability

This Plan Review Guideline (PRG) is applicable to vessels requesting a review of a liftboat general arrangements, stability, structures, and provides basic guidance on other types of submissions.

2. Background

- a. When submitting a package to the MSC, it is important to include the [Application for Inspection](#) (CG-3752A) to the MSC for all new construction submissions. The below guidance may be helpful when preparing the CG-3752A for the MSC:
 - a. A liftboat may be certificated by the following five regulatory options:
 - i. Subchapter L – All “new” liftboats, i.e., all liftboats built after March 15, 1996 engaged in and/or supporting offshore mineral or energy resources (oil & gas, renewables, etc.)
 - ii. Subchapter I – “New” liftboats not meeting option (i). See 46 CFR 90.05-1 for more information on Subchapter I vessel applicability.
 - iii. Subchapter (Old) I – Must be built before March 15, 1996 and may be \geq or $<$ 100 GT
 - iv. Subchapter (Old) T – Must be $<$ 100 GT and built before March 15, 1996
 - v. NVIC 8-91 – Only applicable on an OCMI case-by-case basis. Not applicable for new vessels unless authorized as an “alternative” standard by the OCMI & CG-ENG.
 - b. Determine if SOLAS applies to the subject vessel. SOLAS applies to “new” and “existing” vessels if:
 - i. The vessel engages in an international voyage; and
 - ii. The vessel has an International (ITC) tonnage $>$ 500 GT.
- b. The following items are always forwarded to the Officer in Charge of Marine Inspections (OCMI) for final approval.
 - a. General Arrangements:
 - i. The arrangement of the rescue boat placement
 - ii. Fire and Safety Plans
 - b. Operating Manual
 - i. MSC reviews the technical content only and forwards comments to the OCMI. The OCMI shall review all other aspects of the Operating Manual. OCMI is the final approval authority for this review.

3. References

[46 CFR Subchapter L](#)

[46 CFR Subchapter I](#)

46 CFR Subchapter (Old) I

46 CFR Subchapter (Old) T

[Navigation and Vessel Inspection Circular 8-91, \(NVIC 8-91\) “Initial and Subsequent Inspection of Existing, Uncertificated Offshore Supply Vessels, including Liftboats”](#)

[D8 Policy Letter 98-21 “Persons Allowed on Liftboats,” dated October 9, 1998](#)

IMO MARPOL Consolidated Edition 2017

SOLAS Consolidated Edition, 2014; Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: articles, annexes and certificates

4. Definitions

- a. Liftboat - an offshore supply vessel with moveable legs capable of raising its hull above the surface of the sea. ([46 CFR 125.160](#))

NOTE 1: In some cases, a liftboat is not an offshore supply vessel (OSV). A liftboat is considered an OSV if it meets Subchapter L design and equipment standards and is engaged in and/or supporting offshore mineral or energy resources (oil & gas, renewables, etc.). Offshore supply vessel - a motor vessel that regularly carries goods, supplies, individuals in addition to the crew, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources. (46 USC 2101)

- b. Unrestricted Service ([46 CFR 174.250](#))
- c. Restricted Service ([46 CFR 174.255](#))

5a. General Arrangement Submissions

- a. The following items will expedite a General Arrangements review by the MSC:
 - a. Application for Inspection Form (CG-3752A)
 - b. General Arrangements Plan(s)
 - c. Necessary enclosures to validate GA compliance (as applicable)

NOTE 2: The MSC will not review a general arrangements submission prior to the review of the afloat (intact and damage) & elevated stability calculations and leg strength calculations. Final GA approval will be “Held in Abeyance” until these items are approved.

- b. Based on the regulatory framework applicable to the liftboat, the following items may be of note when submitting a package to the MSC:
 - a. Ensure submission of appropriate documents to validate SOLAS requirements as applicable.
 - b. Ensure submission of appropriate documents to validate double bottom compliance as applicable.

5b. Afloat Stability Submissions

- a. 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.
- b. The following items will expedite an Afloat Stability review by the MSC:
 - a. Application for Inspection
 - b. General Arrangement and Profile Drawings
 - c. Lines Plan
 - d. Hydrostatics or Curves of Form

- e. Tank Capacity Tables
- f. Maximum KG Curve or Table
- g. Calculation of lightship values from stability test data (as applicable)
- h. Sample Loading Conditions
- i. Damage Stability Calculations (as applicable)

NOTE 3: This section assumes the vessel is built to Subchapter L.

- c. Ensure submission of appropriate documents to validate SOLAS requirements as applicable.
- d. Identify and apply the appropriate route restriction (restricted or unrestricted routes) requirements to the submitted packages and ensure to clearly specify the parameter requirements in accordance with applicable regulations.

*NOTE 4: Certification under Subchapter I requires only Intact Stability
Certification under Subchapter L requires both Intact and Damage Stability.*

5c. Structural Submissions

- a. The following items will expedite a Structural review by the MSC:
 - a. Application for Inspection
 - b. Applicable Structural (Hull Shear, Hull Bending, Scantling) Calculations
 - c. Submissions may include:
 - i. A general description of the vessel and its functions such as: length overall, length between perpendiculars, breadth, depth, block coefficient, estimated lightship and draft, load line draft, vessel speed, wave height vs. speed relationship (if applicable), service limitations, identification of novel designs and/or connection details requiring direct analyses, anticipated route, and types of cargo to be carried.
 - ii. General Arrangements Plan(s)
 - iii. Plans: Top View; Profile: Elevation or Longitudinal Side View; and Section: Transverse Cross Sectional Side View.
 - iv. Midship Section Plan - Identifying all cutouts, longitudinal stiffeners/girders that are not considered effective and all local loadings (i.e. wheel loads, foundation loads, concentrated or distributed loads).
 - v. Booklet of Scantling Plans, which may include: Pillars and girders, Bottom construction, floors, girders, inner bottom plating, etc., Deck plans, Framing plan, Scantling profile and decks, Shell expansion, Superstructure and deckhouses, Watertight and deep-tank bulkheads, Miscellaneous non-tight bulkheads which are used as structural supports, Typical sections for areas of unusual structure
 - vi. A plan detailing the location and installation of special materials including the material's chemical and physical properties and weld procedures
- b. Ensure submission of appropriate documents to validate SOLAS requirements for double hull compliance as applicable.

5d. Other Submissions

- a. All liftboats shall have an approved Operating Manual. The submitter shall submit the Operating Manual to the MSC for review of the technical requirements, as per Section 11 of CG-543 Policy Letter 07-02 and [46 CFR 134.170](#). The MSC solely reviews the technical portions of the Operating Manual. The OCMI reviews all other aspects of the Operating Manual.
- b. Subchapter L liftboats requesting carriage of greater than 36 offshore workers shall submit a request to the MSC in accordance with [Subchapter L Subpart F](#).

NOTE 5: There are nuances that need to be considered for stability, structural fire protection, and SOLAS requirements. Bow Height Waivers may be considered by the MSC and CG-ENG on a case-by-case basis.

6. 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 MSC, the unit responsible for implementing this guidance.