

**DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD**

U.S. COAST GUARD(G-MMT-5/82)  
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 2-76

Subj: Damage Stability Calculations for Tank Vessels

1. Purpose. This circular clarifies procedures for the submission and approval of damage stability (subdivision) calculations for tank vessels in accordance with 46 CFR Subchapter E, the Load Line Regulations, and 33 CFR Subchapter O, Pollution.
2. Background.
  - a. Since 1968, when damage stability calculations were required for tank vessels under the International Load Line Convention, 1966, the American Bureau of Shipping has reviewed such calculations as a part of load line review. This action was separate from the regular Coast Guard review of stability.
  - b. On 14 October 1975, regulations were published in the Federal Register concerning the damage stability requirements for tank vessels engaged in the carriage of oil in domestic trade. 33 CFR 157.21 of these regulations states that a vessel which meets the damage stability requirements of that section is considered by the Coast Guard as meeting the damage stability requirements under 46 CFR 42.20-5. 46 CFR 42.20-5 was also amended to note this change.
3. Problem.
  - a. Both Title 33 and Title 46 of the Code of Federal Regulations contain a damage stability standard for tank vessels.
  - b. Both the Coast Guard and the American Bureau of Shipping presently review damage stability calculations for tank vessels under the provisions of Title 33 and Title 46, respectively.
4. Discussion.
  - a. The Coast Guard considers it an unnecessary burden on the designer to require two sets of calculations or the dual submittal of a single set of calculations.
  - b. There are some specialized tank vessels which carry chemicals, LNG, etc. for which other damage stability requirements have been formulated. Compliance with these other damage stability requirements is being required for these specialized tank vessels.

5. Action.

- a. All tank vessels carrying oil as defined in 33 CFR 157.03 and engaged in domestic trade must comply with 33 CFR 157.21, and calculations showing compliance shall be submitted to the Coast Guard. Calculations showing compliance with 46 CFR 42.20 need not be prepared.
- b. All U. S. tank vessels engaged in the carriage of oil but not in domestic trade as defined in 33 CFR 157.03 may submit calculations showing compliance with 33 CFR Part 157 in lieu of submitting calculations showing compliance with 46 CFR 42.20. This would satisfy the proposed stability requirements for pollution prevention for U. S. tank vessels in foreign trade. (See Federal Register, Thursday, April 15, 1976, page 15859.)
- c. Tank vessels carrying products other than oil shall submit the stability calculations required by Commandant (G-NNT).
- d. All damage stability calculations for tank vessels, including calculations showing compliance with 46 CFR 42.20, shall be submitted to the appropriate field technical offices of Commandant (G-II~T).
- e. Calculations presently under review by the American Bureau of Shipping will be completed by that organization.
- f. The Coast Guard field technical offices will transmit to the American Bureau of Shipping the damage stability data necessary for the performance of load line surveys.



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