

**United States
Coast Guard**

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NVIC 2-90
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 2-90

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Subj: Recommended Standards for Double Hulls to be Fitted on New Tank Vessels or Retrofitted on Existing Tank Vessels

1. **PURPOSE.** The purpose of this Circular is to provide guidance to the marine industry for the construction of new tank vessels, and the retrofitting of existing tank vessels, with double hulls as required by the Oil Pollution Act of 1990.

2. **BACKGROUND.**
 - a. Congress recently enacted the Oil Pollution Act of 1990 (the Act) in response to several marine pollution incidents, most notably the grounding of the EXXON VALDEZ in March 1989. Section 4115 of this Act requires tank vessels that are constructed (or that undergo major conversions) under contracts awarded after June 30, 1990 to have double hulls. Section 4115 also requires tank vessels that are constructed or converted under earlier contracts to be retrofitted with double hulls or retired in accordance with a timetable commencing in 1995.
 - b. The Act does not specify standards for the acceptance of double hulls required by section 4115. The absence of standards has created a difficult situation where owners desiring to construct new vessels or retrofit existing vessels do not currently have guidance on dimensions for double hulls that the Coast Guard will accept as meeting the double hull requirements of the Act.

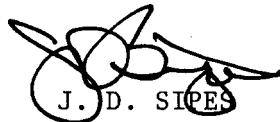
3. **DISCUSSION.**
 - a. This Circular recommends the incorporation of the following double hull standards, which largely incorporate related existing standards that are internationally accepted, when planning the construction, major conversion, or retrofitting of tank vessels.
 - b. The entire sides and bottom within the cargo tank length should be protected by spaces having the dimensions required for protectively located segregated ballast tanks in Regulation 13E of MARPOL 73/78, which is reprinted in 33 CFR 157 Appendix C. These protective spaces should not contain any oil.
 - c. Vessels under 20,000 deadweight tons may reduce the minimum width of spaces protecting the sides of the cargo block. This width may decrease linearly from 2 meters, for a 20,000 deadweight ton vessel, to 1 meter, for a vessel of 10,000 deadweight tons or smaller. The minimum depth of spaces protecting the bottom of the cargo block on vessels under 20,000 deadweight tons should be the lesser of either B/15 or 2 meters, but in no case less than 1 meter.
 - d. Vessels under 10,000 deadweight tons that are constructed and certificated primarily for service on inland routes should maintain a minimum clearance of 2 feet between the outer skin and the sides and bottom of the cargo block. This is considered to be the minimum distance that will provide sufficient clearance for inspection and maintenance. These protective spaces should not contain any oil.

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 2-90

- e. Prohibited oil spaces in accordance with 33 CFR 155.470 should include any space forward of the transverse plane that is located in accordance with the guidance for locating collision bulkheads in Regulation 11.2 of Chapter 11-1 of SOLAS 74/83, regardless of whether the actual fitting of a collision bulkhead is otherwise required. For a barge, this distance is five percent of vessel length aft of the stem at the freeboard deck. The prohibited oil space need not exceed 25 feet in length, or 2 feet for box and trail barges, unless the actual fitting of a collision bulkhead at a greater distance is required by Regulation 11.2.
- f. The stern should be no closer to any part of a cargo tank containing oil than the minimum recommended herein from the vessel's side at amidships.
- g. The guidance contained in Navigation and Vessel Inspection Circular 1-81 should be used in width and depth of the determining the measurements of the minimum double hull.

4. IMPLEMENTATION.

- a. Owners of tank vessels contracted for after June 30, 1990 and owners of vessels undergoing or pending construction under earlier contracts are urged to incorporate this guidance.
- b. This Circular is intended to provide guidance that will be used to review vessel plans on a case-by-case basis for compliance with section 4115 of the Act, pending the development of regulations for double hulls. The formation of these regulations will be influenced by discussions at the International Maritime Organization as well as input received during the rulemaking process. Vessels built under plans that are approved in accordance with this guidance prior to the effective date of these regulations will be deemed to be in compliance with the requirement for double hulls in section 4115 of the Act.
- c. The retrofitting of double hulls, sides, or bottoms within or upon a vessel will be considered to be a rebuilding within the meaning of 46 CFR 67.27-3. Determinations as to whether such retrofits will be considered to be major conversions within the meaning of 33 CFR 157.03(k) will be made on a case-by-case basis; determinations involving work that extends beyond the retrofitting required by section 4115 of the Act is beyond the scope of this Circular and will be evaluated in accordance with existing guidance.



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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 2-90, CHANGE 1

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Subj: CH-1 to NVIC 2-90, Recommended Standards for Double Hulls to be Fitted on New Tank Vessels or Retrofitted on Existing Tank Vessels

Ref: (a) Interim Final Rule of Double Hull Standards for Vessels Carrying Oil in Bulk, 57 FR 36222 and 33 CFR Part 157

1. PURPOSE. This Circular updates Navigation and Vessel Inspection Circular (NVIC) 2-90, by clarifying the applicable period for use of the double hull guidelines provided in the NVIC.
2. DISCUSSION.
 - a. Section 4115 of the Oil Pollution Act of 1990 (OPA 90) requires tank vessels that are constructed (or that undergo major conversions) under contracts awarded after June 30, 1990, to have double hulls. NVIC 2-90 was an interim step to the publishing of double hull standards in regulation which could not be completed until international guidelines were established and the regulatory process could be completed. NVIC 2-90 provided policy guidance on double hull dimensions for vessels being constructed or undergoing major conversions under contracts awarded on or after June 30, 1990, but prior to the effective date of the Interim Final Rule (IFR), reference (a)
3. IMPLEMENTATION.
 - a. Tank vessels that are constructed or converted under contracts awarded before September 11, 1992, may follow the standards for double hull construction contained in NVIC 2-90 or the IFR.
 - b. Tank vessels that are constructed or converted under contracts awarded on or after September 11, 1992, must follow the standards for double hulls contained in the IFR.
 - c. NVIC 2-90 should be maintained for future reference as guidelines used to design double hull vessels that are built or converted under contracts awarded between June 30, 1990 and September 11, 1992.
 - d. Any questions which arise on this matter may be directed to the Merchant Vessel Inspection and Documentation Division¹ Standards Development Branch (G-MVI-2).



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