

MSC Guidelines for Review of Chemical Tankship Structural Fire Protection

Procedure Number: T1-26

Revision Date: 01/18/00

References

- a. 46 CFR Subchapter O
- b. 46 CFR Subchapter D
- c. International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, 1994 (IBC)
- d. International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978 (SOLAS), as amended
- e. IMO MSC circular 847, Interpretations of vague expressions and other vague wording in SOLAS chapter II-2, June 12, 1998
- f. Navigation and Vessel Inspection Circular (NVIC) 9-97; Guide to Structural Fire Protection
- g. Marine Safety Manual (MSM), Vol. II, Chapter 9 & 27
- h. International Code for Application of Fire Test Procedures (FTP Code), IMO Resolution MSC.61(67), 1998.

Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy documents. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Transportation expressly disclaim liability resulting from the use of this document.

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 the Procedure Number: **T1-26**

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General Review Guidance

- If the vessel is new and not a sister vessel, has the Application for Inspection been submitted? In general, no plan review will occur until receipt of a copy of the Application.

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- Is it clearly stated what is desired from the MSC? Are all plans requiring Coast Guard review and/or approval submitted in triplicate? Are there any special or unusual requests involved?
- Are all spaces identified and designated on the plan?
- Are the cargoes to be carried permitted for bulk transport in the U.S.? If no, then specific Commandant (G-MSO-3) approval will be required. (46 CFR 153.1)
- Per 46 CFR 32.56-1, if the SOLAS SFP requirements are met, then 46 CFR Subchapter D requirements are satisfied.
 - Determine whether the vessel is operating on an international voyage (see definitions section). If **yes**, then SOLAS and/or the IBC code will apply. If **not** on an international voyage, then the requirements from 46 CFR Subchapter D will apply.
 - Determine if the ship will only be carrying cargoes listed in Chapter **18** of the IBC Code and if so, then the IBC Code **will not** apply. If the IBC Code does not apply, then SOLAS or 46 CFR Subchapter D will apply (see above guidance). If the cargo is listed in Chapter **17**, then the IBC Code **will** apply. If the IBC Code applies, see Section 11.1.1 for application of the SOLAS requirements.
 - The **only** difference between a chemical tankship designed to meet SOLAS and one designed per the IBC Code (for structural fire protection purposes) is that a vessel meeting the IBC Code shall not apply the requirements for location of the main cargo control station as required in SOLAS, Chapter II-2, Regulation 56.2. [Note: This requirement is discussed in the MSC Guidelines for Review of Chemical Tankship General Arrangements.]

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For chemical tankships, not required to meet SOLAS, with a keel laying date on or after January 1, 1975, ensure compliance with the following requirements:

- ❑ Insulation of exterior boundaries, superstructures and deckhouses. 46 CFR 32.56-20
 - ❑ Openings in exterior boundaries, accommodation, service, and control spaces. 46 CFR 32.56-21
 - ❑ Openings in and insulation of boundaries, other spaces. 46 CFR 32.56-22.
 - ❑ Category A machinery spaces, windows and port lights. 46 CFR 32.56-25
 - ❑ Category A machinery spaces, bulkheads and decks. 46 CFR 32.56-30
 - ❑ Doors. 46 CFR 32.56-35
 - ❑ Category A machinery spaces, insulation. 46 CFR 32.56-40
 - ❑ Combustible veneers. 46 CFR 32.56-50
 - ❑ Control spaces. 46 CFR 32.56-55
 - ❑ Ventilation ducts. 46 CFR 32.56-60
- ❑ For chemical tankships required to meet SOLAS, Ch. II-2, ensure compliance with the following regulations:
- 42 Structure
 - 1 steel construction
 - 2,3 aluminum structures
 - 5 method determination
 - 46 Protection of stairways and lift trunks in accommodation spaces, service spaces and control stations
 - 1 stairways and doors, relative to deck penetration
 - 3 steel stairways
 - 47 Doors in fire-resisting divisions
 - 1 door fire integrity and construction
 - 48 Ventilation systems
 - Apply Regulation II-2/16
 - 1 duct material and sizing
 - 2 penetration sleeves
 - 3,4 duct passage limitations
 - 5 "B" penetration sleeve
 - 6 control stations
 - 7 galley ranges
 - 49 Restricted use of combustible materials

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Procedure Number: T1-26

Revision Date: 01/18/00

50	Details of construction
56	7, 8.3 Exterior boundaries of superstructure and deckhouse
57	Bulkheads w/in the accommodation and service spaces
1,2	bulkhead construction
58	Fire integrity of bulkheads and decks
1,2	minimum fire integrity
	Table 58.1: bhds
	Table 58.2: decks
4	windows

- For tankships on international voyages and with keel-laying dates after July 1, 1998, compliance with the FTP Code, as cited within SOLAS, is mandatory. In particular, any SFP arrangements that deviate from specified SOLAS construction standards, are acceptable only if the alternative arrangement is proven to meet the FTP Code.

Definitions

International Voyage: A voyage from a country to which the present Convention applies to a port outside such country, or conversely. (See SOLAS Chapter I, Part A, Regulation 2(d).)2(d.)