



Marine Safety Center Technical Note

MTN 03-00
16710/46 CFR 127
June 16, 2000

Subj: Means of Escape from Main Machinery Spaces on Offshore Supply Vessels (OSV's)

Ref: (a) 46 CFR 127.240

1. Purpose: This Technical Note provides guidance for applying the means of escape requirements of 46 CFR Subchapter L to main machinery spaces on OSV's. Previous determinations made during plan review are superseded.

2. Discussion:

a. The main machinery spaces of most OSV's are considered spaces where the crew may normally be employed, and as such, two means of escape are required from these spaces per 46 CFR 127.240(a)(2). Notable exceptions include very small OSVs with machinery spaces small enough to preclude the crew from working in those spaces while underway. The cognizant Officer in Charge, Marine Inspection (OCMI), generally makes the determination as to whether a given space will be considered a space where crew may normally be employed.

b. As stated in 46 CFR 127.240(b)(1), one of the two required means of escape from such a space must be independent of bulkheads required to be watertight under 46 CFR 174. For the common OSV design that places the machinery space beneath the cargo deck, this leads to a design with outboard escape trunks and scuttles leading up to the main deck, and the sacrifice of some cargo space to keep the escape clear. Typical designs for larger OSVs place these escape trunks inboard of the transverse damaged extent required by 46 CFR 174.207, so that the inboard bulkhead and egress door of the escape trunk is not required to be watertight, thereby meeting the requirement of 46 CFR 127.240(b)(1). However, for smaller vessel designs, where the OSV admeasures at less than 100 GT (regulatory) and 500 GT (convention), it is often impractical to place these escape trunks inboard of the transverse damaged extent required by 46 CFR 174.207, due to the comparatively narrow beam and space restrictions of the cargo deck area. Data of U.S. documented OSVs shows significantly smaller deck areas on the smaller vessels, so that escape arrangements strictly in compliance with 46 CFR 127.240(b)(1) result in a proportionately larger reduction of the deck cargo area, as compared to the larger vessels.

c. Because of the adverse impact on the cargo carrying capacity of some small OSVs, several designers have requested relief from this requirement by proposing an equivalent arrangement. As stated in 46 CFR 125.170, the Commanding Officer, Marine Safety Center may accept substitutions for fittings, equipment and arrangements required by 46 CFR, Subchapter L, provided the substitution achieves an equivalent level of safety. This guidance is provided to assist designers requesting such an equivalency.

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3. Applicability: The guidelines provided in this Technical Note apply to all U.S. flag offshore supply vessels that have keel laying dates or contract dates for major modification after the date of issue of this guidance.

4. Action: The Marine Safety Center will consider requests to accept equivalent arrangements for compliance with 46 CFR 127.240(b)(1). OSVs that carry a SOLAS certificate must continue to meet the specific requirements of Chapter II-2, Regulation 45. Proposed designs which do not meet the escape requirements of 46 CFR 127.240 shall be submitted for review, along with compelling justification that the required arrangement is not practical or compatible with the design and proper working of the ship.

All requests must demonstrate equivalency in the following areas:

- a. watertight compartmentation of the vessel, and
- b. quick access to a ready means of escape to the open deck

In addition, all watertight doors must open in the intended direction of escape (away from the machinery space), and they must meet the requirements of 46 CFR 174.210(c).

In lieu of seeking an equivalency determination from the Marine Safety Center, designers may request that the cognizant OCMI consider an alternative arrangement, as provided for in 46 CFR 125.170 and 46 CFR 127.240(m).



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