

Review of OSV General Arrangements

Procedure Number: T1-5

Revision Date: 07/01/03

Purpose

To establish a process for reviewing the general arrangements plans for Offshore Supply Vessels (OSVs).

References

- a. 46 CFR, Subchapter I
 - b. 46 CFR, Subchapter L
 - c. MTN 03-00, "Means of Escape from Main Machinery Spaces on OSV's"
 - d. MTN 01-95, "Permissible Locations of Class 1 Watertight Doors"
 - e. MTN 01-00, "SOLAS Double Bottom Requirements for Cargo Vessels, other than Tankers"
 - f. MTN 02-00, "Longitudinal Extent of Machinery Spaces on OSV's and other SOLAS Cargo Vessels"
 - g. MVI Policy ltr N0. 21-93, Carriage of Methanol (Methyl Alcohol) on Offshore Supply Vessels (OSVs)
 - h. International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978 (SOLAS), as amended
 - i. D8 Policy ltr 09-2001, Certification of Multi-Service Offshore Supply Vessels (OSV's)
 - j. D8 Policy ltr 16613, dated November 12, 1998, Rescue Boat Requirements on Offshore Supply Vessels
 - k. Navigation Vessel Inspection Circular 01-78, Change 1, "Automation of Offshore Supply Vessels of 100GT and Over."
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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 guidance. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and 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 email or phone. Please refer to the Procedure Number: T1-5

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General Review Guidance

- ❑ Is it clear what the submitter is asking for? Are all plans to be stamped/returned submitted in triplicate? Are there any special/unusual requests or a time critical element involved?
 - ❑ Verify applicability of Regulations. See 46 CFR 90.05 (Subchapter I), 125.100 (Subchapter L), and SOLAS II-1/1. If questions arise relating to “grandfather” provisions of older OSVs, see G-MOC-2 response letter of 7/24/97 and NVIC 8-91.
 - ❑ Are all spaces identified and designated on the plan?
 - ❑ Does the vessel fit the definition of an OSV, as detailed in 46 USC 2101(19) and 46 CFR 125.160: "a motor vessel of more than 15 GT but less than 500 GT (RTC) (as measured under part 69 subpart C, D, or E, of this chapter) or less than 6000 GT (ITC) (as measured under the Convention Measurement System under part 69, subpart B of this chapter) that regularly carries goods, supplies, or equipment in support of exploration, exploitation, or production of offshore mineral or energy resources and is not a small passenger vessel."
 - ❑ Vessels in service within District 8 of the U.S. Coast Guard desiring multi-service (I/L) status should also refer to references (i) and (j). Please contact the local Marine Safety Office or 8th District Commander for additional guidance.
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- ❑ For OSVs certificated under 46 CFR, **Subchapter I**, verify compliance with the following:
 - ❑ Extended Machinery Spaces
 - ❑ Verify the boundaries of the Machinery Space. By referring to MTN 00-02, extended machinery spaces are authorized per CFR and SOLAS regulations depending on the classification of space included in the extended space. Note: The CFR's for extended machinery spaces are less stringent than SOLAS regulated vsls.
 - ❑ Sub I requires the installation of a fire suppression system, which must be installed throughout and have a capacity to flood the entire extended machinery space.
 - ❑ Additional W/T Doors may not be installed within extended machinery spaces.
 - ❑ Means of Escape (46 CFR 92.10) - On vessels where members of the crew are not employed in the machinery spaces or where the engineering spaces are unmanned/unattended, 2 means of escape complying with 46 CFR

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92.10 are not required. However, where such vessels are more than 500GT (Reg), the automation requirements for unattended machinery spaces, outlined in 46 CFR 62.50 will apply.

- ❑ Accommodations for Officers and Crew for vsls(46 CFR92.20)
 - ❑ Messrooms (92.20-30)
 - ❑ Hospital Space(92.20-35)
 - ❑ Collision Bulkhead: Subchapter I has no collision bulkhead requirements. If the vessel is being classed, class rules will apply.
 - ❑ Rails and Guards (46 CFR 92.25)
 - ❑ Class 1 watertight doors (46 CFR 170.248)
 - ❑ Applies to vessels with watertight doors in bulkheads that have been made watertight to comply with the flooding or damage stability regulations in subchapter S. Since certain Subchapter I vessels (500GT and over, which are designed primarily for carriage of dry cargoes) must comply with the damage stability requirements of 46 CFR 174.350, the watertight door requirements of 46 CFR 170.248 may apply. See reference (d) for additional guidance on acceptable locations of Class 1 doors.
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- ❑ For OSVs certificated under 46 CFR, **Subchapter L**, verify compliance with the following:
 - ❑ Extended Machinery Spaces.
 - ❑ Verify the boundaries of the Machinery Space. By referring to MTN 00-02, extended machinery spaces are authorized per CFR and SOLAS regulations depending on the classification of spaced included in the extended space. Note: Domestic rules for extended machinery spaces are less stringent than SOLAS regulated vsls.
 - ❑ If the vessel has a fire suppression system installed within the extended machinery space, even though Subchapter L does not require them, it must be Commandant approved, designed and installed iaw 46 CFR 95.15, and must have a capacity to flood the entire extended machinery space.
 - ❑ Additional W/T Doors may not be installed within extended machinery spaces.

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- ❑ Means of Escape (46 CFR 127.240) - On vessels where members of the crew are not employed in the machinery spaces or where the engineering spaces are unmanned/unattended, 2 means of escape complying with 46 CFR 127.240 are not required. However, where such vessels are more than 100GT, 46 CFR Part 130, Subpart D or reference (k) will apply.
- ❑ Collision Bulkhead (46 CFR 174.190) - For vessels that are undergoing a mid-body extension, the collision bulkhead must be designed in accordance with the new length between perpendiculars
- ❑ Location of accommodations and pilothouse (46 CFR 127.270)
- ❑ Construction and Arrangement of Quarters for Crew Members and Accommodations for Offshore Workers (46 CFR 127.280)
- ❑ Maximum number of offshore workers permitted (46 CFR 126.170):
 - ❑ As designated on the vessel's COI but not to exceed 36.
 - ❑ 12 for international voyages, unless the vessel holds a valid passenger-ship-safety certificate in compliance with SOLAS*.

*NOTE: Under the definitions of SOLAS, an OSV that carries more than 12 offshore workers or passengers on an international voyage is a "Passenger Vessel". As a result, the vessel will be required to comply with all SOLAS Passenger Vessels rules.

- ❑ Machinery space bulkheads are required to be watertight (46 CFR 174.195)
- ❑ Watertight doors must be in compliance with 46 CFR 174.210.
- ❑ Damaged Stability (46 CFR 174.200)
 - ❑ Check for 30" side protection. Identify if exhaust and other piping that penetrates the 30" side protection. If the vsl does not have 30" side protection or has piping that penetrates the 30" side protection, inform designer of possible stability and progressive flooding ramifications. See MTN ##-## for additional guidance.
- ❑ Cargo Restriction (46 CFR 125.110)
 - ❑ May carry <20% deadweight of Grade D and E combustible/flammable cargoes in integral tanks. There are no limits on excess fuel oil grades D/E.
- ❑ Rails and Guards (46 CFR 127.310-30)
 - ❑ Similar to Sub I Requirements.

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- ❑ Carriage of Liquid Mud (Drilling Muds)(applies to vessels over 500GT REG).
 - ❑ Petroleum based liquid mud may be carried in the sideshell tanks of an OSV since OSV's are not regulated under OPA 90 (see 60 FR 13319).
 - ❑ Carriage of Methanol:
 - ❑ OSV's may carry Methanol provided they comply with various Subchapter D requirements outlined in reference (g).
 - ❑ Carriage of NLS's:
 - ❑ No requirements unless owners request the MSC review the vessel for compliance with IMO Resolution A.673(16).
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- ❑ For OSVs certificated under **SOLAS (Cargo Vsls over 500GT INT)**, verify compliance with the following:
 - ❑ The vessel must have peak and machinery space bulkheads as required by (SOLAS II-1/11).
 - ❑ Double bottoms for cargo ships (SOLAS II-1/12-1)
 - ❑ Applicable for vessels constructed after February 1, 1992.
 - ❑ Required throughout length of the vessel, from collision bulkhead to afterpeak bulkhead.
 - ❑ Wells allowed in some areas with special restrictions.
 - ❑ Double bottom not required in way of watertight compartments used to carry liquids.
 - ❑ Review reference (e) for additional requirements.
 - ❑ Means of escape (SOLAS II-2/13)*
 - ❑ Stairways and ladders shall be arranged to provide, from all accommodation and normally employed spaces, other than machinery spaces, ready means of escape to the open deck. See SOLAS II-2/13 for additional requirements.
 - ❑ Two means of escape from Category A machinery spaces (see definition in SOLAS II-1/3.17, bow thruster rooms may qualify as Category A space); one of the following two provisions required
 - ❑ Two sets of steel ladders widely separated, leading to separate egress doors in the upper part of the space; one ladder must have a continuous fire shelter, with a self-closing, gas-tight steel door at the lower end

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- ❑ One steel ladder leading to the upper part of the space, and a door from the lower part of the space, well separated, that leads to a safe escape route to the open deck
- ❑ In ships less than 1000GT , one of the Cat A E/R escapes may be dispensed with.

* On vessels where members of the crew are not employed in the machinery spaces or where the engineering spaces are unmanned/unattended, 2 means of escape complying with SOLAS II-2/13 ARE STILL REQUIRED. In addition, for SOLAS vessels, SOLAS II-1 Part E, “Requirements for periodically unattended machinery spaces”, will also apply.