



Department of Defense DIRECTIVE

NUMBER 6050.15

June 14, 1985

ASD(MI&L)

SUBJECT: Prevention of Oil Pollution From Ships Owned or Operated by the
Department of Defense

- References:
- (a) Sections 1901-1911 of title 33, United States Code, "Act to Prevent Pollution From Ships"
 - (b) Protocol of 1978 Relating to the International Convention for the Prevention of Pollution From Ships ("MARPOL Protocol"), as amended
 - (c) Title 33, Code of Federal Regulations, Parts 151, 155, and 157, "Oil Pollution Regulations"
 - (d) Title 46, Code of Federal Regulations, Part 162, "Engineering Equipment; Design and Approval Requirements for Oil Pollution Prevention Equipment"

1. PURPOSE

This Directive implements the provisions of Section 1902(d) (reference (a)) that require the Heads of Federal Departments and Agencies to prescribe standards for the prevention of pollution from ships for which they are responsible.

2. APPLICABILITY AND SCOPE

2.1. This Directive applies to the Office of the Secretary of Defense, the Military Departments, the Unified and Specified Commands, and the Defense Agencies (hereafter referred to collectively as "DoD Components"). The term "Military Services" refers to the Army, the Navy, the Air Force, the Marine Corps, and the Coast Guard (when operating under the Department of the Navy). Those DoD Components that do not own or operate ships and that do not have shore facilities that service the Department of Defense or other authorized ships are excluded from the provisions of this Directive.

2.2. The provisions of this Directive encompass all oceangoing ships owned or operated by the Department of Defense, with the exception of hydrofoils, air-cushion vehicles, and submarines--provided that the construction and equipment of such excepted vessels include equivalent protection against pollution, assuming due regard to the service for which the ship is intended.

2.3. Provisions also are specified for DoD Shore Facilities that receive visits from the Department of Defense or other authorized ships.

2.4. The provisions of this Directive specifically provide for preventing oil pollution from DoD ships in accordance with 33 U.S.C. 1901-1911 (reference (a)). DoD ships do not carry noxious liquid substances in bulk and thus are not affected by Annex II of MARPOL Protocol (reference (b)).

3. DEFINITIONS

The terms used in this Directive are defined in enclosure 1.

4. POLICY

4.1. Reference (a) implements reference (b), which incorporates and modifies the international convention designed to decrease the accidental and operational pollution from ships, particularly oil tankers. The convention encompasses standards for the design, construction, operation, inspection, and certification of new and existing ships.

4.2. Reference (a) also provides that Heads of Federal Departments and Agencies prescribe standards to ensure that ships under their control operate in a manner consistent with reference (b), "so far as is reasonable and practicable without impairing the operations or operational capabilities of such ships."

4.3. It is DoD policy to comply with the standards presented in enclosures 2 through 5. Compliance will ensure that DoD ships operate with due regard to recognized international standards for environmental protection, while not detracting unreasonably from the mission of those ships to protect the national interest. Compliance also will demonstrate appreciation for the harmful effects of marine oil pollution and the Department of Defense's ongoing efforts to avoid polluting the world's waterways.

4.4. The standards presented in enclosure 2 shall apply to the operations of DoD ships, as specified for each type and size of ship.

4.5. The standards presented in enclosure 3 shall apply to the construction of new DoD ships and the installation of pollution abatement equipment aboard new and existing DoD ships. Equivalent fittings, materials, appliances, or apparatus may be fitted in a ship as an alternative to those required by the standards, provided they are at least as effective as those so required. Operational methods may not be substituted for a design or equipment requirement.

4.6. Each DoD oil tanker of 150 metric tons (gross tonnage) and above and every other DoD ship of 400 metric tons (gross tonnage) and above shall be inspected and certified by the respective DoD Components in accordance with procedures described in enclosure 4. Inspections performed by the U.S. Coast Guard, at the request of respective DoD Components, shall be considered acceptable in fulfilling this requirement.

4.7. DoD shore facilities, such as oil-loading terminals, repair ports, or other ports that service ships having oily residues and/or oily mixtures to discharge, shall provide sufficient capacity to receive those residues and mixtures without causing undue delay to the ships involved. The shore facilities also shall be equipped with oil transfer hose adapters designed to allow connection with the standard flange specified by the International Maritime Organization (IMO) and described in enclosure 5. Such adapters will enable foreign military vessels to discharge their oily residues and mixtures when visiting DoD facilities.

4.8. Exemption from the provisions of this Directive may be sought for those ships that could suffer unduly and unreasonably with respect to their military characteristics, effectiveness, and system integrity so as not to be in the national interest. Exemption from the provisions of this Directive also may be sought for those shore facilities in which, because of infrequent use by oceangoing DoD ships, expected near term deactivation of a facility, or other justifiable conditions, full compliance is

not practicable or feasible. Such exemptions shall be approved by the Assistant Secretary of Defense (Manpower, Installations, and Logistics).

4.9. Exemption from the provisions of this Directive also may be necessary at certain times and under certain circumstances during the operation of a normally nonexempt ship. Instances when specific exemption is authorized include the following:

4.9.1. While operating in waters beyond 50 nautical miles from land, with shipboard oily waste processing equipment inoperable due to equipment malfunction, a DoD ship may discharge oily bilge water directly to the sea if the onboard retention of such water poses a safety hazard. The discharge may be conducted only after a concerted effort has been expended to repair the equipment malfunction. Commanding Officers shall ensure that discharges under these circumstances are minimized. The details of a discharge shall be duly noted in the Engineering Log.

4.9.2. During any other situation in which a Commanding Officer deems that a discharge of shipboard oily wastes is required to ensure crew or ship safety, or to prevent machinery damage (e.g., oily bilge water shall not be allowed to reach levels that threaten to cause chloride contamination of shipboard condensate systems), a DoD ship may discharge such wastes to the sea. Commanding Officers shall ensure that such discharges are minimized, and that details of the discharge are duly noted in the Engineering Log.

4.9.3. While operating in waters beyond 50 nautical miles from land, a DoD ship may discharge directly overboard oily waste from isolated spaces such as JP-5 pump rooms, if the ship does not have the capability to collect and transfer such waste for processing through the shipboard Oil-Water Separator (OWS) system (see paragraph E3.1.5. of enclosure 3). Such discharges should contain only distillate (non-persistent) oils and should result in minimal quantities of oily waste being discharged.

5. RESPONSIBILITIES

5.1. The Assistant Secretary of Defense (Manpower, Installations, and Logistics) shall:

5.1.1. Monitor the amendment process of the MARPOL Protocol (reference (b)) as implemented by the IMO, and update the corresponding DoD Regulations to ensure that DoD ships operate consistent with reference (b) so far as is reasonable and practicable without impairing the operations or operational capabilities of such ships.

5.1.2. Approve exemptions for those ships that properly fall within the policy provisions of paragraphs 2.2. and 4.8., above.

5.2. The Heads of the DoD Components shall, to ensure compliance with the standards prescribed in this Directive, prepare and promulgate implementing standards consistent with the stated policy of this Directive.

5.3. The Military Services shall ensure compliance with the standards prescribed in this Directive by performing the following:

5.3.1. Program, budget, and account for funds necessary to install appropriate pollution abatement equipment aboard existing ships and at port facilities under their command.

5.3.2. Develop, procure, and install appropriate pollution abatement equipment applicable to existing ships and port facilities under their command.

5.3.3. Incorporate the standards of this Directive in all specifications for new ship design, development, and procurement, as well as for new port facility installations.

5.3.4. Update appropriate operational directives to ship commanders specifying proper pollution abatement procedures for ships under their command.

6. EFFECTIVE DATE AND IMPLEMENTATION

This Directive is effective immediately. Forward one copy of implementing documents to the Assistant Secretary of Defense (Manpower, Installations, and Logistics) within 180 days.

A handwritten signature in black ink, reading "William H. Taft, IV". The signature is written in a cursive style with a prominent flourish at the end.

William H. Taft, IV
Deputy Secretary of Defense

Enclosures - 5

- E1. Definitions
- E2. Operational Standards for Preventing Oil Pollution From DoD Ships
- E3. Ship Construction and Equipment Standards for Preventing Oil Pollution From DoD Ships
- E4. Inspections and Certifications
- E5. Standard IMO Flange

E1. ENCLOSURE 1

DEFINITIONS

E1.1.1. Automatic Seawater-Compensated Fuel System. An automatic shipboard fuel system consisting of banks of interconnected tanks that discharge tank ballast water as new fuel is added and that add ballast water to replace fuel that is consumed during ship operations. Such systems ensure that the tanks are filled with either fuel, water, or a mixture of fuel and water.

E1.1.2. Combination Carrier. A ship designed to carry either oil or solid cargoes in bulk.

E1.1.3. Deadweight (DW). The difference in metric tons between the displacement of a ship in water of a specific gravity of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship.

E1.1.4. Discharge. Any release of oil or oily waste, howsoever caused, from a ship, including any escape, disposal, spilling, leaking, pumping, emitting, or emptying.

E1.1.5. DoD Combatant. A DoD ship whose primary mission is combat with the enemy.

E1.1.6. DoD Oiler. A DoD ship designed and constructed to carry and deliver bulk petroleum, oil, and lubricants to combatants and other ships underway.

E1.1.7. DoD Oil Tanker. A DoD ship constructed or adapted primarily to carry oil in bulk in its cargo spaces, including combination carriers when they are carrying a cargo or part cargo of oil in bulk.

E1.1.8. DoD Ship. A warship, naval auxiliary, or other ship owned or operated by the Department of Defense, when engaged in noncommercial service.

E1.1.9. Existing DoD Oiler or Oil Tanker. A DoD oiler or oil tanker that is not a new DoD oiler or oil tanker.

E1.1.10. Existing DoD Ship. A DoD ship that is not a new DoD ship.

E1.1.11. From the Nearest Land. Means from the baseline from which the territorial sea of the territory in question is established in accordance with international law, except that for the purposes of the Directive, "from the nearest land" off the

northeastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in:

Latitude 11°00' S., longitude 142 08' E. to a point in latitude 10°35' S.
Longitude 141°55' E., thence to a point latitude 10°00' S.
Longitude 142°00' E., thence to a point latitude 9°10' S.
Longitude 143°52' E., thence to a point latitude 9°00' S.
Longitude 144°30' E., thence to a point latitude 13°00' S.
Longitude 144°00' E., thence to a point latitude 15°00' S.
Longitude 146°00' E., thence to a point latitude 18°00' S.
Longitude 147°00' E., thence to a point latitude 21°00' S.
Longitude 153°00' E., thence to a point on the coast of Australia in
latitude 24°42' S., longitude 153°15' E.

E1.1.12. Fueling at Sea. The transfer of fuel from one ship to another on the open sea while the ships are underway.

E1.1.13. Fuel Oil. Any oil used as fuel in connection with the propulsion and auxiliary machinery of the ship in which such oil is carried.

E1.1.14. Lightweight. The displacement of a ship in metric tons without oil cargo, fuel oil, lubricating oil, ballast water, fresh water and feed water in tanks, consumable stores, and passengers and crew and their effects.

E1.1.15. Major Conversion. A major conversion of an existing DoD ship is one that:

E1.1.15.1. Substantially alters the dimensions or carrying capacity of the ship;
or

E1.1.15.2. Changes the type or mission of the ship.

E1.1.16. New DoD Oiler or Oil Tanker. A DoD oiler or oil tanker:

E1.1.16.1. For which the building contract is placed after December 31, 1980;
or

E1.1.16.2. Which has undergone a major conversion:

E1.1.16.2.1. For which the contract is placed after December 31, 1982; or

E1.1.16.2.2. Which is completed after December 31, 1985.

E1.1.17. New DoD Ship. A DoD ship:

E1.1.17.1. For which the building contract is placed after December 31, 1980;
or

E1.1.17.2. Which has undergone a major conversion:

E1.1.17.2.1. For which the contract is placed after December 31, 1982; or

E1.1.17.2.2. Which is completed after December 31, 1985.

E1.1.18. Oceangoing DoD Ship. A DoD ship that at any time operates seaward of the outermost boundary of the United States territorial sea and that is capable of international transit.

E1.1.19. Oil. Petroleum in any form, including crude oil, fuel oil, sludge, oil refuse, and refined products other than petrochemicals.

E1.1.20. Oily Mixture. A mixture with any oil content, including bilge slops, oily wastes, oil residues (sludge), oily ballast water, and washings from cargo oil tanks.

E1.1.21. Oily Waste Holding Tank (OWHT). A tank specifically designated for the collection of tank drainings, tank washings, and other oily mixtures.

E1.1.22. Segregated Ballast. The ballast water introduced into a tank that is separated completely from the cargo oil and fuel oil system and that is allocated permanently to the carriage of ballast or cargoes other than oil.

E1.1.23. Special Area. A sea area where, for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic, the adoption of special mandatory methods for the prevention of sea pollution by oil is required. Special areas shall include those listed below:

E1.1.23.1. The Mediterranean Sea area includes the Mediterranean Sea proper, including the gulfs and seas therein, with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Strait of Gibraltar, and the meridian of 5°36'W.

E1.1.23.2. The Baltic Sea area includes the Baltic proper with the Gulf of Bothnia, the Gulf of Finland, and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44.8'N.

E1.1.23.3. The Black Sea area includes the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N.

E1.1.23.4. The Red Sea area includes the Red Sea proper, including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12°8.5'N., 43°19.6'E.) and Husn Murad (12°40.4'N., 43°30.2'E.).

E1.1.23.5. The Persian Gulf area includes the sea area located northwest of the rhumb line between Ras al Hadd (22°30'N., 59°48'E.) and Ras al Fasteh (25°04'N., 61°25'E.).

E1.1.24. Tank. An enclosed space that is formed by the permanent structure of a ship and that is designed for the carriage of liquid in bulk.

E1.1.25. Waste Oil Tank (WOT). A tank specifically designated for the collection of shipboard oil residue and oil sludge.

E2. ENCLOSURE 2

OPERATIONAL STANDARDS FOR PREVENTING OIL POLLUTION FROM DoD SHIPS

E2.1. DoD SHIPS

E2.1.1. Introduction. The operational standards contained in this enclosure are described for each of the possible sources of shipboard discharge, and accommodate various combinations of shipboard oil pollution control equipment. Additional standards applicable only to oilers and to oil tankers owned or operated by the DoD Components are provided in section E2.2., below. Operational standards in accordance with 33 CFR, Parts 155 and 157 (reference (c)) are considered acceptable to the standards required herein.

E2.1.2. Machinery Space Bilges

E2.1.2.1. With OWS Systems

E2.1.2.1.1. DoD ships equipped with approved OWS systems, as specified in enclosure 3, shall process machinery-space bilge water through the OWS systems before discharging overboard. Separated oil from the OWS systems shall be stored in shipboard waste oil tanks (WOTs) until the oil can be offloaded safely ashore.

NOTE: Discharges, regardless of oil content, that produce a sheen are prohibited within the territorial sea and contiguous zone of the United States. The OWS equipment standards of enclosure 3 allow DoD vessels operating in coastal waters to process bilge water and to discharge the effluent wastewater, which under normal conditions will not produce a sheen. If a sheen occurs, a determination of cause shall be made. Sheen-producing discharges that result from OWS mechanical problems shall be recorded in the Engineering Log in accordance with the requirements of paragraph E2.1.7., below. In addition, corrective actions shall be initiated to repair the disabled unit. Sheen-producing discharges that result from the ship's force negligence (such as excessive quantities of detergents in bilges) shall be considered oil spills and must be reported in accordance with established procedures.

E2.1.2.1.2. While in port, DoD ships equipped with OWS systems shall use such systems whenever applicable standards, port regulations, and manning requirements permit. Where adequate shore reception facilities are available, oily bilge water may be pumped directly ashore.

E2.1.2.1.3. The use of chemical agents that promote chemical emulsion of oil in machinery space bilges shall be minimized to enable the OWS systems to perform more effectively. The use of short-lived detergents is recommended for bilge cleaning.

E2.1.2.1.4. In port, oily bilge water that contains chemical emulsion agents shall be discharged to shore receiving facilities. Shoreside "donuts" (oil disposal rafts) should not be used to receive such waste.

E2.1.2.1.5. When shipboard OWS systems are inoperable, DoD ships equipped with OWHTs shall transfer bilge water to the OWHTs for eventual processing as described in paragraph E2.1.3., below. Ships not equipped with OWHTs shall refer to procedures in subparagraph E2.1.2.3.2., below.

E2.1.2.2. With OWS Systems and Oil Content Monitors (OCMs)

E2.1.2.2.1. When operating within 12 nautical miles (NM) from the nearest land, or when operating in special areas defined in enclosure 1, DoD ships equipped with approved OWS systems and OCMs, as specified in enclosure 3, shall operate such equipment for processing bilge water before its discharge overboard.

E2.1.2.2.2. When operating within 12 NM from the nearest land, the alarm included with the OCM shall be armed to activate when the oil content of the OWS effluent exceeds 20 parts per million (ppm). Upon activation of the alarm, the OWS effluent shall be routed back to the bilge or to an oily waste holding tank. When the OCM indicates that the effluent oil content has returned to 20 ppm or less, the effluent shall again be discharged overboard.

E2.1.2.2.3. When operating beyond 12 NM from the nearest land, the alarm included with the OCM shall be armed to activate if the oil content of the OWS effluent exceeds 100 ppm. All such occurrences shall be recorded in accordance with requirements of paragraph E2.1.7., below.

E2.1.2.2.4. Should the OCM or its alarm become inoperable, ships shall process bilge water in accordance with procedures described in subparagraph E2.1.2.1.1.

E2.1.2.3. Without OWS Systems

E2.1.2.3.1. Ships not equipped with OWS systems, but having an OWHT, shall direct oily bilge water to the OWHT.

E2.1.2.3.2. Ships with neither OWS systems nor OWHTs shall, when possible, retain all oily bilge water for shore disposal. If operating conditions make it necessary to dispose of oily bilge water at sea, discharge shall be made as far from land as possible, but at least 50 NM from the nearest land unless compliance with this limitation would adversely affect the ship's ability to carry out its mission. Non-oily bilge water (such as collected water that remains segregated from oil-contaminated sections of the bilge) may be discharged directly overboard.

E2.1.2.3.3. Discharge of oily bilge water into surrounding waters shall take place only while the ship is underway.

E2.1.2.3.4. Educators may not be used to dewater bilges containing oily waste, except in situations when OWS systems (including OWHTs) are not available or are not of sufficient capacity to handle the immediate flow requirements.

E2.1.2.3.5. Chemical agents that promote the chemical emulsion of oil may not be used in bilge water to disperse the oil content or to prevent the appearance of a sheen upon discharge to surrounding waters.

E2.1.3. OWHTs

E2.1.3.1. With OWS Systems

E2.1.3.1.1. All DoD ships equipped with approved OWS systems, as specified in enclosure 3, shall process the contents of shipboard OWHTs in the same manner as described in subparagraphs E2.1.2.1.1., E2.1.2.1.2., E2.1.2.1.3., and E2.1.2.1.4. for machinery space bilge water.

E2.1.3.1.2. When shipboard OWS systems are inoperable, the contents of the OWHT shall be retained for eventual shore disposal. If operating conditions are such that overboard discharge of tank contents is absolutely necessary, then such discharge shall be made as far from land as possible, but not closer than 50 NM, unless compliance with this limitation would adversely affect the ship's ability to carry out its mission. The discharge shall occur only while the ship is underway.

E2.1.3.2. Without OWS System

E2.1.3.2.1. Ships not equipped with OWS systems, or whose systems that are inoperative, shall, when possible, retain tank contents for shore disposal. If operating conditions make it necessary to dispose of tank contents at sea, the discharge shall be made as far from land as possible, but not closer than 50 NM from the nearest

land, unless compliance with this limitation would adversely affect the ship's ability to carry out its mission.

E2.1.3.2.2. Discharge of OWHT contents into surrounding waters shall occur only while the ship is underway.

E2.1.3.2.3. Chemical agents that promote the chemical emulsion of oil may not be used in the OWHT to disperse the oil content or to prevent the appearance of a sheen upon discharge of tank contents to surrounding waters.

E2.1.3.3. With OWS Systems and OCMs

E2.1.3.3.1. DoD ships equipped with approved OWS systems and OCMs, as specified in enclosure 3, shall follow the same procedures for processing OWHT contents as are described in subparagraphs E2.1.2.2.1., E2.1.2.2.2., and E2.1.2.2.3. for processing machinery space bilge water.

E2.1.4. WOTs

E2.1.4.1. Shipboard WOTs shall be used to retain separated oil from OWS systems and OWHTs, as well as waste oil from other ship processes.

E2.1.4.2. Fuel tank strippings may not be discharged to WOTs (see subparagraph E2.1.5.1.1.).

E2.1.4.3. The contents of WOTs may only be discharged to proper shore reception facilities.

E2.1.5. Fuel Tanks

E2.1.5.1. Fuel Tank Strippings

E2.1.5.1.1. DoD ships equipped with fuel-tank stripping systems may only discharge the strippings to available holding tanks in which contents are stored for appropriate processing or discharge ashore, such as fuel storage tanks, OWHTs, or special fuel oil reclamation tanks (see paragraph E2.1.6.). Strippings may not be discharged overboard.

E2.1.5.1.2. Eductors may not be used to strip shipboard fuel tanks or cargo tanks.

E2.1.5.2. Fuel Tank Deballast

E2.1.5.2.1. DoD combatants with automatic seawater-compensated fuel systems may discharge ballast water during refueling-at-sea operations. Compensated fuel systems shall be operated to minimize oil discharge during all refueling operations.

E2.1.5.2.2. Other DoD ships that must carry ballast water in fuel oil tanks shall, so far as is reasonable and practicable, discharge the ballast to appropriate shoreside reception facilities.

E2.1.5.2.3. DoD ships with approved OCMs, as specified in enclosure 3, installed in the ballast water discharge piping shall use the OCMs whenever discharging conventional fuel tank ballast to surrounding waters. So far as is reasonable and practicable, the discharge may not be allowed if its oil content is:

E2.1.5.2.3.1. Greater than 20 ppm when operating within special areas or within 12 NM from the nearest land; or

E2.1.5.2.3.2. Greater than 100 ppm when operating outside special areas and beyond 12 NM from the nearest land.

E2.1.5.2.4. DoD ships without approved OCMs installed in the ballast water discharge piping may not, so far as is reasonable and practicable, discharge conventional fuel tank ballast water when operating within special areas or within 50 NM from the nearest land.

E2.1.5.2.5. Chemical agents that promote the chemical emulsion of oil may not be used in fuel tanks to disperse the oil content or to prevent the appearance of a sheen upon discharge of tank ballast water to surrounding waters.

E2.1.6. Fuel Oil Reclamation Tanks. DoD ships equipped with special tanks for reclaiming fuel oil from shipboard fuel tank and cargo tank strippings (see subparagraph E2.1.5.1., above) may not discharge the separated water directly overboard. Such water may either be transferred to an oily waste holding tank or be processed by an OWS system, in accordance with procedures described in subparagraph E2.1.2.1., above.

E2.1.7. Shipboard Recordkeeping

E2.1.7.1. DoD ships shall record, in the Engineering Log, descriptive details associated with the following occurrences:

E2.1.7.1.1. Discharges of oily waste from bilges, fuel tanks, or oily waste holding tanks that are not processed through an OWS.

E2.1.7.1.2. Discharges that an OCM indicates exceed the designated limits.

E2.1.7.1.3. Breakdowns or malfunctions of the OWS or OCM equipment.

E2.1.7.2. All entries shall include the date and time of the occurrence. Entries for which a discharge occurs shall include an estimate of the quantity discharged and the position of the ship at the start and finish of the discharge.

E2.1.7.3. In place of the above recordkeeping requirements, an oil record book maintained in accordance with 33 CFR Part 151 (reference (c)) is considered acceptable. Breakdowns or malfunctions of the OWS or OCM equipment shall be recorded in the Engineering Log.

E2.2. OILERS AND OIL TANKERS

E2.2.1. Introduction. The operational standards contained in this section are applicable to oilers and oil tankers and supplement the operational standards specified for DoD Ships in section E2.1. These standards vary, depending upon the source of discharge, and more than one standard may apply to an individual oiler or oil tanker. The standards for equipment required to satisfy operational requirements specified in this section are provided in enclosure 3.

E2.2.2. Segregated Ballast Tanks

E2.2.2.1. On ships configured with segregated ballast tanks, ballast water is not permitted in cargo tanks. The ballast must be kept clean and oil-free, and it may be discharged directly to the sea.

E2.2.2.2. In extreme weather or emergency conditions, ballast water may be carried in cargo tanks to ensure the safety of the ship. Such additional ballast water will be processed in accordance with paragraph E2.2.3., below.

E2.2.3. Cargo Tanks and Fuel Tanks

E2.2.3.1. DoD oilers and oil tankers equipped with tank cleaning systems may not discharge the tank washings directly overboard. The washings shall be held for disposal ashore, or transferred to oily waste holding tanks for appropriate processing.

E2.2.3.2. DoD oilers and oil tankers may not, so far as is reasonable and practicable, discharge cargo tank ballasts or fuel tank ballasts when operating within special areas or within 50 NM from the nearest land.

E2.2.3.3. DoD oilers and oil tankers with approved OCMs, as specified in enclosure 3, installed in the ballast water discharge piping shall use the OCMs whenever discharging cargo tank or fuel tank ballasts to surrounding waters. When operating outside special areas or when beyond 50 NM from the nearest land when not within a special area, the discharge may not be allowed if its oil content is greater than 100 ppm. Oily ballast residue remaining in cargo tanks or fuel tanks shall be transferred to appropriate OWHTs. On existing ships, any cargo tank may be designated as an OWHT.

E2.2.3.4. Oilers and oil tankers not equipped with OCMs shall retain cargo tank ballasts and fuel tank ballasts on board for discharge to a shore reception facility. If operating conditions make it necessary to dispose of cargo tank or fuel tank ballast water at sea, discharge shall be made as far from land as possible, but at least 50 NM from the nearest land. Such discharge shall be effected only after sufficient time has elapsed to allow adequate separation of the oil and water contents. Before discharging the ballast water, the level of the oil/water interface shall be determined by use of an interface detector. This will allow a more controlled discharge of the ballast water while avoiding discharge of the tank's oil contents.

E2.2.3.5. Discharge of cargo tank or fuel tank ballast water into surrounding waters shall occur only while the ship is underway.

E2.2.3.6. Chemical agents that promote the chemical emulsion of oil may not be used in fuel tanks to disperse the oil content or to prevent the appearance of a sheen upon discharge of tank ballast water to surrounding waters.

E3. ENCLOSURE 3

SHIP CONSTRUCTION AND EQUIPMENT STANDARDS FOR PREVENTING OIL POLLUTION FROM DoD SHIPS

E3.1. GENERAL

E3.1.1. The standards specified in this enclosure shall be implemented taking full account of the stringent military requirements for reliability, maintainability, safety, and life-cycle cost. Each Military Service shall be responsible for approving equipment applicable to the unique military needs of its own ships. Equipment approved by the U.S. Coast Guard in accordance with 46 CFR, Part 162 (reference (d)) is considered acceptable, provided that Service-use requirements of each ship are fulfilled. If U.S. Coast Guard approved equipment does not meet the Service-use requirements of an individual Service, the affected Service shall be responsible for developing the required equipment.

E3.1.2. Existing DoD ships shall have the required equipment, with a limited exception for OCMs (see paragraph E3.1.4., below), installed on board within 10 years from the effective date of this Directive. Planning, design, procurement, and installation of equipment shall begin immediately, in order to execute an orderly, phased, and level-funded program.

E3.1.3. New DoD ships shall have the equipment installed at the time of their initial operation by the respective DoD Component.

E3.1.4. It is expected that current Coast Guard-approved OCM systems will satisfy the Service-use requirements of the individual Services, with the exception of the Navy. The Navy shall proceed with research and development (R&D) programs until systems are available to meet its Service-use requirements. Upon successful development, the Navy shall have 10 years to outfit its ships with OCMS. In the interim, a Plan of Action and Milestones (POA&M) shall be submitted annually to the OSD. Each POA&M shall provide a detailed status of OCM R&D programs and a projected schedule of OCM installations.

E3.1.5. When designing OWS systems (such as piping arrangements), it may not always be reasonable and practicable to reach every remote shipboard space containing potentially minimal amounts of oily waste. The DoD Components shall strive to design the most effective and efficient systems while considering cost constraints and Service shipboard requirements.

E3.2. DoD SHIPS

E3.2.1. Introduction. The ship construction and equipment standards contained in this section are applicable to DoD ships with gross displacements as indicated for each respective standard. Additional standards applicable only to oilers and oil tankers owned or operated by DoD Components are provided in section E3.3., below.

E3.2.2. OWS Systems. OWS systems shall be installed on all DoD ships with gross displacements greater than 400 metric tons. The system shall be designed in accordance with those standards specified in 46 CFR, Part 162 (reference (d)), so far as is reasonable and practicable given the unique requirements of the respective DoD Component.

E3.2.3. OCMs. OCMs shall be installed in the oily waste overboard discharge piping of all DoD ships with gross displacements greater than 10,000 metric tons. The monitors shall be designed in accordance with those standards specified in CFR, Part 162 (reference (d)), so far as is reasonable and practicable given the unique requirements of the respective DoD Component.

E3.2.4. WOTs. DoD ships with gross displacements greater than 400 metric tons shall be provided with a tank or tanks of adequate capacity to receive all waste oil (oil sludge or residue) generated during normal shipboard operations. Tank capacity shall be determined by the type of machinery aboard ship, the length of expected voyages, and the size of the applicable ship. Tanks shall be designed and constructed so as to facilitate their cleaning and the discharge of their contents to proper shore reception facilities.

E3.2.5. Ship-to-Shore Transfer Equipment. DoD ships with gross displacements greater than 400 metric tons shall be equipped with appropriate piping, pumps, fittings, and adapters to allow safe and efficient offload of shipboard oily residues and oily mixtures to shore reception facilities. When visiting international ports, such ships also shall be equipped with adapters designed to allow connection with transfer hoses using the standard flange specified by the IMO and described in enclosure 5 of this Directive.

E3.2.6. Automatic Seawater-Compensated Fuel Systems. All new DoD ships with automatic seawater-compensated fuel systems shall be outfitted with the latest system modifications in order to minimize oil discharges during refueling operations. Existing compensated fuel system designs shall be reviewed periodically for potential cost-effective improvements.

E3.3. OILERS AND OIL TANKERS

E3.3.1. Introduction. The construction and equipment standards contained in this section are applicable to oilers and oil tankers owned or operated by the DoD Components. They are in addition to those standards specified for all DoD ships in section E3.2., above.

E3.3.2. OWS Systems. OWS systems, as specified in paragraph E3.2.2., above, shall be installed on all DoD oilers and oil tankers with gross displacements greater than 150 metric tons.

E3.3.3. OCMs. OCMs, as specified in paragraph E3.2.3., above, shall be installed in oily waste overboard discharge lines aboard all DoD oilers and oil tankers with gross displacements greater than 150 metric tons.

E3.3.4. Cargo Tank Cleaning. DoD oilers and oil tankers with gross displacements greater than 150 metric tons shall be provided with adequate means for cleaning cargo tanks and for transferring the tank washings to OWHTs (see paragraph E3.3.5., below) prior to any cargo tank ballasting operations.

E3.3.5. OWHTs. DoD oilers and oil tankers with gross displacements greater than 150 metric tons shall be provided with OWHTs of sufficient capacity to retain the slops generated by cargo tank washings and from dirty ballast residues. Existing oilers and oil tankers may designate any empty cargo tank as an OWHT. OWHTs on new ships shall be so designed as to avoid excessive turbulence and entrainment of oil or emulsion with the water.

E3.3.6. Oil Water Interface Detectors. DoD oilers and oil tankers equipped with OWHTs also shall be equipped or provided with a means of rapidly and accurately locating the oil/water interface within the tanks. Such equipment or provisions shall be available for interface detection in other tanks where the separation of oil and water is effected and from which a discharge to the sea is intended.

E3.3.7. Segregated Ballast Tanks. Segregated ballast tanks shall be considered in the design of all new oilers or oil tankers of 30,000 deadweight tons or more. If equipped with segregated ballast tanks, their capacity shall be such that the ship may operate safely on ballast voyages without recourse to the use of cargo tanks for water ballast, except in extreme emergencies when the stability and safety of the ship are threatened. Consideration also shall be given to locating segregated ballast tanks along the length of the ship in such a way as to provide protection to cargo tanks against collision, grounding, or hostile action.

NOTE: The determination of "deadweight" deserves special attention. The definition of "lightweight" applicable to this Directive (see enclosure 1) has been adjusted from its conventional meaning to include dry cargo capacity. Thus, when computing the "deadweight" of a ship (that is, full load displacement minus lightweight), the dry cargo displacement will be subtracted out inasmuch as it is included as part of the lightweight definition. Deadweight now becomes a measure more directly related to the oil pollution potential of a particular ship. This adjusted measurement is important particularly with regard to the Navy's unique multipurpose logistics ships (Fast Combat Support Ships (AOE)) which, unlike normal commercial tankers, are equipped to simultaneously carry both dry and oil cargo.

E3.3.8. Pumps, Piping, and Discharge Arrangements. All new DoD oilers or oil tankers designed with segregated ballast tanks shall include oil piping designed to minimize oil retention in the lines. Means shall be provided to drain all cargo pumps and all oil lines at the completion of cargo discharge. Lines and pump drainings shall be capable of being discharged both ashore and to a cargo tank or OWHT.

E3.3.9. Ship-to-Shore Transfer Equipment. DoD oilers and oil tankers shall be equipped with ship-to-shore transfer equipment, as specified in paragraph E3.2.5., above. New DoD oilers and oil tankers shall be equipped to transfer dirty ballast water, and any other oil-contaminated water, to shore facilities. Deck connections for discharge to shore shall be located on the open deck on both sides of the ship.

E4. ENCLOSURE 4
INSPECTIONS AND CERTIFICATIONS

E4.1. INSPECTIONS

E4.1.1. All DoD oil tankers of 150 metric tons (gross tonnage) and above, and all other DoD ships of 400 metric tons (gross tonnage) and above, shall be inspected by the respective DoD Component, or upon request, by the U.S. Coast Guard, in accordance with the following schedule:

E4.1.1.1. An initial inspection shall be conducted before the ship is put in service or just after installation of the equipment described in enclosure 3. The inspection shall include a complete survey of appropriate portions of the ship's structure, equipment systems, fittings, arrangements, and material to ensure full compliance with the standards of enclosure 3 of this Directive.

E4.1.1.2. A periodic inspection shall be conducted at intervals specified by the Head of the DoD Component, but not exceeding 5 years. Such inspections shall ensure the continued compliance of each DoD ship with the standards of this Directive. The inspections shall include a survey of the integrity and working order of appropriate portions of each ship's structure, equipment, and associated pump and piping systems, including oil discharge monitoring and control systems and oily water separating equipment.

E4.2. CERTIFICATION

E4.2.1. When the inspection determines that a particular ship complies fully with the standards of this Directive, the ship shall be certified by the DoD Department Head or his or her authorized agent as being in compliance.

E4.2.2. When the inspection determines that a particular ship does not comply fully with the standards of this Directive, corrective action shall be initiated immediately to bring the ship into compliance. Insofar as is reasonable and practicable without impairing the operations or operational capability of the ship, any necessary action shall be completed and the ship shall be certified before it is allowed to proceed to sea.

E4.2.3. An International Oil Pollution Prevention Certificate issued by the U.S. Coast Guard in accordance with 33 CFR, Part 151 (reference (c)) is considered acceptable to the inspection and certification requirements contained herein.

E5. ENCLOSURE 5
STANDARD IMO FLANGE

E5.1. INTRODUCTION

The IMO has specified standard dimensions for flanges used to connect shoreside transfer hoses to ship deck connections. These dimensions are detailed in table E5.T1. An illustration of the flange itself is provided in figure E5.F1.

Table E5.T1. IMO Flange Dimensions

Dimension	Standard
Outside diameter	215 millimeters (mm)
Inner diameter	Sized to fit mating hose or piping
Bolt circle diameter	Six holes 22 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery; the slot width to be 22 mm
Flange thickness	20 mm
Bolts and nuts	Six, each 20 mm in diameter and of suitable length
Operating pressure	6 kilograms/square centimeter (kg/cm ²)

Figure E5.F1. IMO Flange

