U.S. Department of Homeland Security
United States Coast Guard

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United States Coast Guard

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COMDTINST M16455.1
8 AUGUST 2007

COMMANDANT INSTRUCTION M16455.1

Subj: VESSEL ENVIRONMENTAL MANUAL

1. PURPOSE. This manual is published to promulgate Coast Guard environmental policies and procedures applicable to all waterborne assets, thereby implementing for Coast Guard surface assets, the policy described in the Commandant's Environmental Stewardship Commitment dated 2 March 2007. It is intended to meet the requirement of 33 U.S.C. 1902(g) Noncommercial shipping standards, which states "The heads of Federal departments and agencies shall prescribe standards applicable to ships excluded from this chapter by subsection (b)(1) of this section and for which they are responsible. Standards prescribed under this subsection shall ensure, so far as is reasonable and practicable without impairing the operations or operational capabilities of such ships, that such ships act in a manner consistent with the MARPOL Protocol."

2. ACTION. Area, district and sector commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, all afloat units and supporting shore units, assistant commandants for directorates, Judge Advocate General, and special staff offices at Headquarters shall comply with the provisions of this manual. Internet release is authorized.

3. DIRECTIVES AFFECTED. None.

4. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. Per the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts COMDTINST M16475.1D, Section 2.b.3.(33), the Program Manager (CG-45) and CG-443 have determined that the development and issuance of the Vessel Environmental Manual is categorically excluded from further NEPA documentation, and a written CED (Categorical Exclusion Determination) is not required.

5. FORMS AVAILABILITY. Forms called for in this manual, Request for Allowance Change, Form CG-5323, and Request For Directives, CG-4428, are available in USCG Adobe Forms on SWS-III or on the Coast Guard Intranet at http://cgweb2.comdt.uscg.mil/cgforms/ .

T. W. ALLEN /s/
Admiral, U.S. Coast Guard
Commandant

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Vessel Environmental Manual

COMDTINST M16455.1

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CHAPTER 1 - INTRODUCTION

A. PURPOSE. The Vessel Environmental Manual, COMDTINST M16455.1, is published to promulgate Coast Guard environmental policies and procedures applicable to all surface vessels. Commanding Officers and Officers in Charge shall also familiarize themselves with any state and local regulations. Guidance on state and local issues is available from the points of contact listed in 1.J below.

B. APPLICABILITY. This manual applies to U.S. Coast Guard vessels worldwide. It also applies to boats and other craft carried by these vessels, as well as U.S. Coast Guard boats deployed from shore units. If differences in policy exist between this manual and any other Coast Guard guidance available to the fleet, this manual takes precedence.

NOTE

None of this manual is to supersede the Commanding Officer's or Officer in Charge's obligation to protect the ship and crew.

C. CHANGE PROCESS. To ensure this manual remains up-to-date, coincides with current practices, and continues to meet program needs, future change proposals shall be forwarded as specified in the following paragraphs.

1. Change proposals may be originated at any organizational level. Proposals shall be submitted by letter to the Office of Naval Engineering, Commandant (CG-45) via their cognizant Maintenance and Logistics Command (MLC). Headquarters units and program managers may submit their proposals directly to Commandant (CG-45).

2. MLCs shall review, endorse, and forward approved proposals to Commandant (CG-45). Disapproved requests shall be returned to the originator with an explanation for disapproval.

3. Upon receipt, Commandant (CG-453) will conduct a thorough investigation of each proposal to justify the need, identify possible conflicts with other directives and publications, and assess the affects of implementation.

4. Commandant (CG-4) is the final approving authority and has overall responsibility for the Vessel Environmental Manual, COMDTINST M16455.1.

    a. All approved changes will be promulgated by future change notices to this manual.

    b. Changes that require immediate action shall be submitted directly to Commandant (CG-45) via message, information copy to the MLCs and ELC.

D. EXEMPTIONS. All units shall comply with the requirements of Vessel Environmental Manual, COMDTINST M16455.1 unless otherwise authorized by the Office of the Judge Advocate General & Chief Counsel CG-094 or CG-45. CG-094 or CG-45 may authorize temporary waivers from this manual only when required to meet operational requirements.

E. DEFINITIONS.

1. Vessel: In the context of this manual, an all-encompassing term meant to include all floating assets from cutters to boats, including barges. The term “ship” is also sometimes used and carries the same meaning.

2. Cutter: A Coast Guard vessel whose length overall is 65 ft or greater.

3. Boat: A Coast Guard vessel whose overall length is less than 65 ft. It includes AtoN boats, security boats, skiffs, punts, rigid hull inflatable boats, and paint floats.

4. Management Plan: A written program developed and implemented by someone in authority such as the Commanding Officer, Officer in Charge, Engineer Officer, etc. which sets forth all or some of the following: standards and procedures, responsibilities, equipment, performance criteria, and resources. It must be of a permanent nature, that is, Night Orders do not constitute a management plan. Standing Orders, Organizational Manuals, and PQS are examples of management plans.

5. Great Lakes: As defined in 33 C.F.R. § 151, means the Great Lakes of North America and the St. Lawrence River west of a rhumb line drawn from Cap des Rosiers to West Point, Anticosti Island, and, on the north side of Anticosti Island, the meridian of longitude 63 degrees west.

6. Special Area: As defined in 33 C.F.R. § 151, any of the following: Mediterranean Sea, Baltic Sea, Black Sea, Red Sea, Antarctic, North Sea, and the Wider Caribbean region. For specific boundary areas, see 33 C.F.R. § 151.06 or contact your MLC or CG-453.

F. DISTRIBUTION. Commandant (CG-45) shall determine distribution of this manual. Requests for changes to the distribution should be submitted on "Request for Allowance Change" (Form CG-5323), addressed to Commandant (CG-612), via your chain of command.

G. ORDERING. The Directives Publication and Reports Index (DPRI), COMDTNOTE 5600 provides guidance for ordering the Vessel Environmental Manual, COMDTINST 16455.1, and its associated changes. Request For Directives, (Form CG-4428), ordered from ELC, shall be completed and forwarded to the appropriate stock point. The manual is also available on the Commandant (CG-45) website located on CG Central and the Coast Guard Directives website at http://cgweb.uscg.mil/g-c/g-ccs/g-cit/g-cim/directives/welcome.htm .

H. MANUAL CHANGES. Future changes will be denoted by bold type.

I. **FEEDBACK**. All errors, omissions, discrepancies, questions, and suggestions for improvement regarding this manual can be reported directly to Commandant (CG-453).

J. POINTS OF CONTACT.

1. Manual Manager: Office of Naval Engineering, Environmental Division (CG-453), (202) 475-5733
2. USCG HQ Office of Real Property and Environmental Law (CG-0942): (202) 372-3747
3. MLCA (vs) Environmental Technical Expert: (757) 628-4569
4. MLCP (vs) Environmental Technical Expert: (510) 637-5942
5. ELC Environmental Technical Expert (ELC): (410) 762-6732

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CHAPTER 2 - GENERAL INFORMATION AND POLICY

A. TERMS AND DEFINITIONS.

1. Territorial Sea. For purposes of this manual, a zone of the ocean extending from the U.S. coastline out to 3 nautical miles (NM) from shore. For Clean Water Act purposes, in Texas and Western Florida, it extends 9 NM from shore, except for oil and hazardous substances, where it's 12 NM, except if it could affect Exclusive Economic Zone (EEZ) resources, in which case it is 200 NM.

2. Contiguous Zone. A zone of the ocean extending from 3-12 nautical miles from the U.S. territorial sea baseline for the purposes of the Clean Water Act (CWA). For other purposes it extends to 24 nautical miles from the baseline. See 33 C.F.R. 2.38 if further explanation is needed.

3. Exclusive Economic Zone (EEZ). A zone of ocean extending from the outer limit of the territorial sea seaward to 200 nautical miles from the U.S. coastline.

4. Navigable Waters. Includes the territorial seas and all navigable internal waters (rivers, lakes) of the U.S.

5. United States. For purposes of this manual, the U.S. includes the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands.

B. COAST GUARD POLICY.

1. Environmentally Sound Vessels. The U.S. Coast Guard is recognized as America's Maritime Guardian. As Environmental Stewards, we make a commitment to the American public and to future generations, not only to protect the environment, but also to incorporate protection of the marine environment in our own operations. All Coast Guard vessels will strive to meet the letter and spirit of applicable environmental laws and regulations including those of the port state and local government unit. To accomplish this goal, the Coast Guard officially adopts the following:

   a. ***Comply*** with all international, Federal, state, and local requirements.

   b. ***Plan, develop, and execute*** forward-looking strategies to address environmental challenges.

   c. ***Recognize*** the necessity to be prepared to respond to an environmental incident.

   d. ***Invest*** in pollution prevention to reduce the cost of compliance and to eliminate the need for cleanup.

e. ***Promote*** technological innovation to obtain better and more cost-effective environmental performance.

f. ***Integrate*** environmental protection principles into our daily decision-making process and long range planning.

g. ***Measure*** our organizational mission effectiveness against a "new bottom line" that includes the cost of achieving our environmental goals.

h. ***Provide*** education and training to our mariners to ensure that they have the tools necessary to achieve our goal of environmental excellence.

i. ***Develop*** partnerships with private contractors and public agencies to achieve our mutual environmental goals.

A copy of the Commandant's Environmental Stewardship Commitment, shown in Appendix A, shall be displayed on the bridge and in the engine room of all cutters.

2. Shoreside Support to Vessels. At the Coast Guard YARD, Integrated Support Commands (ISCs), and other major shore commands with a dedicated Facilities Engineering organization (i.e. a commissioned Civil Engineer officer), the installation commander shall promulgate appropriate policies for cutters and boats which moor or are serviced at the facility, to ensure compliance with this manual.

3. Environmental Inspection of Coast Guard Vessels. Within the United States, Coast Guard vessels shall be available for inspection by environmental officials, provided the inspector demonstrates a legitimate basis for requesting access, and subject to the requirements to protect national security related information. Section B.3.a will address access to Coast Guard vessels and release of information regarding Coast Guard oil spills. Section B.3.b addresses access to Coast Guard vessels for all other environmental purposes.

   a. Access to Vessels and Release of Information In the Event of Coast Guard Oil Spills. Effective oil spill planning and response is an important issue for the Coast Guard, for other regulatory agencies, and for the public. Coast Guard vessels may receive requests from non-Coast Guard entities for access and/or information pertaining to Coast Guard oil spill planning and response. Commanding officers and officers in charge shall consider several factors in responding to these requests. First, they shall quickly provide officials and agencies responsible under law and regulation responding to an actual spill with the necessary access and/or information to minimize environmental damage and Coast Guard liability. Second, they shall ensure all access granted and information disseminated is consistent with Coast Guard information security requirements. Third, they shall ensure that initial information released about oil spills is as accurate as possible and that it is characterized as preliminary and subject to later verification.

(1) Access to Vessels

(a) During oil spill response emergencies, commanding officers should allow Federal On-Scene Coordinator (FOSC) representatives access to their vessels if requested, consistent with information security requirements. The U.S. Coast Guard is designated the FOSC for oil spills in the coastal regions of the U.S.

(b) During non-emergency situations, Coast Guard vessels are not subject to inspection by other Federal, State, or local officials in connection with oil spill planning. Commanding officers and officers in charge shall cooperate, however, with the local and civilian authorities regarding oil spill planning and prevention consistent with information security requirements without impeding mission accomplishment. Commanding officers and officers in charge, at their discretion, may invite Federal, State, and local officials aboard their vessels for assist visits or other discussions. They shall coordinate requests for such access with their operational commander (OPCON).

(2) Information Dissemination

(a) In addition to the requirements of Chapter 9 of this manual, vessels shall promptly and accurately respond to Federal, State, and local government requests for information necessary to coordinate spill response and cleanup efforts or to prevent or reduce environmental damage. Commanding officers or officers in charge providing initial information should indicate that the information provided is preliminary and is subject to verification or change during subsequent investigation.

(b) Vessels should promptly respond to Federal, State, and local government requests for the following preliminary information about Coast Guard oil spills:

i. Whether an oil spill has occurred

ii. Suspected source of the spill

iii. The type of substance spilled

iv. When the spill occurred

v. Where the spill occurred

vi. The initial indication as to the general nature of the cause of the incident, e.g., whether due to equipment failure, operator error, or undetermined origin

vii. A preliminary estimate of how much oil was spilled.

(c) Commands receiving requests for investigation reports shall inform requestors that they will forward any Coast Guard investigation reports generated in connection with the spill to the Judge Advocate General of the USCG (TJAG). TJAG will control the release of investigation reports.

(d) When claims against the Coast Guard have been filed or are reasonably anticipated, requests for information pertaining to oil spills shall be referred to the Coast Guard attorney representing the cognizant Area Commander.

(e) The commanding officer or officer in charge will refer any media requests for information to the public affairs officer on the cognizant Area staff.

b. General Environmental Inspector Access Procedures Within the U.S.

(1) If a State or local inspector requests access to inspect a Coast Guard vessel, the parties involved shall follow these procedures:

(a) The commanding officer or officer in charge shall confirm the inspector's credentials.

(b) The commanding officer or officer in charge shall have the inspector identify spaces or work sites to which they request access.

(c) The commanding officer or officer in charge shall have the inspector identify the nature of the activity to be examined and its relationship to regulations. The commanding officer or officer in charge should consult counsel if there is any question regarding the applicability of the law or regulation to vessels.

(d) If the issue is a result of contractor actions aboard ship, a representative of the contractor shall accompany the inspector and vessel representative.

(e) If practical, the vessel shall suggest off-ship alternatives that involve similar operations or training demonstrations conducted ashore.

(f) If off-ship alternatives are not practical, commanding officers or officers in charge shall approve inspections that do not involve access by inspectors to classified or restricted information, equipment, technology, or operations.

(2) Environmental Inspector Security Clearances. If the inspector requests access to sensitive areas such as spaces containing cryptographic equipment or requiring a Secret security clearance or higher and the commanding officer or officer in charge concludes that a legitimate requirement exists for such access, he/she shall forward a message request for access to the Area or District Commander with

information copies to the Office of Naval Engineering (CG-45). The message shall identify the following:

(a) The space to which the inspector wants access

(b) The nature of the activity that the inspector wants to examine

(c) The classified or restricted information, equipment, or operation to which the inspector would have access during the proposed inspection

(d) The proposed alternatives which do not involve such access

(e) Reasons why the inspector finds the proposed alternatives unsatisfactory

(f) Security clearance information, including name of inspecting official(s), date of visit, name of agency which the official(s) represent, and level, basis, and date of security clearance.

The commanding officer or officer in charge shall inform State or local inspector(s) that the security implications of their request require consideration at Coast Guard Headquarters.

(3) Environmental Inspection Dispute Resolution. If the commanding officer or officer in charge determines that the inspector does not have a requirement for access to the spaces or information cited above, but the inspector does not agree with that determination, the commanding officer shall promptly refer the matter up the operational chain of command for resolution. The operational chain of command shall consult with CG-45 for environmental policy information.

c. Environmental Inspections of Coast Guard Vessels in Foreign Waters. Coast Guard vessels enjoy sovereign immunity status within the territory of foreign countries (internal waters, ports, and seas out to 12 nautical miles from land). As such, they are not legally subject to inspection, search, detention, fine, or arrest, and, in the event of a violation of local environmental or other laws, the port or coastal State or local authorities may only require the vessel to leave. Even so, the United States may be legally responsible to provide monetary recompense for any loss or damage caused by a violation of the environmental laws and regulations of a foreign State within its territory. Additionally, Coast Guard vessels must comply with any environmental regulations established in port visit clearances and the local Status of Forces Agreements (SOFAs).

Environmental officials representing the foreign country or local authority do not have the authority to board, inspect, or search U.S. Coast Guard vessels to determine compliance with that country's laws. If a Coast Guard vessel is approached by representatives of a foreign country while in foreign waters with a request to board, inspect, or search the vessel regarding a possible environmental violation, the

commanding officer or officer in charge shall refuse to permit the inspection and shall notify the U.S. embassy, CG-45, and the chain of command of the request, the alleged violation, and any amplifying information.

If the vessel has violated or is perceived to be in violation of the foreign country's environmental laws or regulations, the country may request the vessel to leave port or the ocean area under its jurisdiction. In this event, the commanding officer shall comply with the request without delay and notify the chain of command, the U.S. embassy, and CG-45 of this action.

d. Notices of Violations. If your vessel receives a warning, Notice of Violation, written report of inspection or other expression of environmental regulatory concern, the commanding officer or officer in charge shall immediately notify the operational commander as well as the Office of Environmental Law (CG-0942), and CG-45, and the cognizant MLC. All offices shall be provided a copy of the warning or notice.

e. Afloat Environmental Compliance Inspections and Assessments. The afloat environmental compliance inspection process shall consist of annual self inspections. These inspections shall be conducted for all floating assets using Appendix B. The results of the inspection shall be sent to your MLC and to CG-453 for review and analysis.

4. Exclusion of Vessel Discharges from National Pollutant Discharge Elimination System (NPDES) Permitting.

a. Per regulations issued by the U.S. Environmental Protection Agency (EPA), discharges incidental to the normal operation of a vessel do not require a permit under the NPDES program. This does not exclude vessels from regulations, only the requirement to obtain a permit from the EPA for incidental discharges. The following are examples of current incidental discharges allowed without a permit:

(1) Effluent from properly functioning oil/water separators

(2) Sewage

(3) Graywater

(4) Cooling water

(5) Boiler blowdown

(6) Weather deck runoff, including fresh water washdowns

(7) Ballast water

b. Coast Guard vessels shall not enter into agreements with environmental agencies regarding vessel discharges without CG-094 and CG-45 approval.

c. To promote uniformity in treatment of naval vessel discharges nationwide, CG-45 and CG-0942 closely monitor local attempts to impose requirements on ships beyond those specifically provided for by U.S. law or U.S. EPA regulation. COs or OICs shall report any interest expressed by environmental regulators in discharges from U.S. Coast Guard vessels by message to CG-45 with information copies to the chain of command.

5. Operation Within Foreign Nation Waters. Coast Guard vessels enjoy sovereign immunity status and are not legally subject to enforcement of environmental requirements by coastal or port Nations. When operating in foreign territorial waters, or when visiting foreign ports, Coast Guard vessels shall operate, to the extent reasonable and practical, consistent with local laws and abide by environmental provisions contained in port visit clearances and/or in SOFAs. Such conditions will normally be communicated to visiting vessels in the Logistics Request (LOGREQ) reply. Coast Guard vessel compliance with such requirements is in no way an inappropriate relinquishment of U.S. sovereignty. When port visit clearances and SOFAs either do not exist, or do not provide sufficient guidance, Coast Guard vessels should attempt to abide by the corresponding requirement for U.S. navigable waters or ports, as delineated in this manual. In some cases, compliance with the corresponding U.S. requirement will not be feasible overseas, due to lack of offload facilities, environmental services, or some other cause. Where compliance with U.S. requirements is not feasible, Coast Guard vessels should operate in a manner consistent with the environmental practices of host nation warships

6. Prohibited Discharge Zones for U.S. Coast Guard Vessel Wastes. Tables 3-1, 5-1, and 7-1 provide a summary of pollution control discharge restrictions for vessels.

7. Afloat Environmental Protection Coordinator (AEPC). Commanding Officers of cutters shall designate a person as the AEPC. The person assigned to this position shall be the CO's advisor on the vessel environmental protection program. This person shall be knowledgeable regarding the requirements and responsibilities of this manual.

8. Environmental Planning. While carrying out assigned missions, operational commanders and commanding officers have an obligation to avoid unnecessary damage to the environment. Toward that end, commanders must closely observe laws, regulations, and policy for protecting and preserving the environment in all operations. Failure to consider environmental requirements or effects early in the planning process could result in operational delays. Early environmental protection actions or mitigating measures should result in minimal or no limitations or impacts on exercise objectives. Environmental planning must be meticulous to achieve compliance, avoid unnecessary environmental degradation, and maintain public image and support for the continued use of operating areas. Environmental planning may lead to modifying operational objectives to achieve most if not all goals, selecting more favorable operating areas, and establishing

environmental “rules of engagement” that will result in operational success while achieving environmental protection.

C. **TRAINING.** All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 3 – SEWAGE

A. LEGISLATION.

1. MARPOL. Annex IV (Prevention of Pollution by Sewage from Ships).

2. 33 C.F.R. § 159. This part prescribes regulations governing the design and construction of marine sanitation devices (MSDs) and procedures for certifying marine sanitation devices. Subpart A of this part contains regulations governing the manufacture and operation of vessels equipped with marine sanitation devices.

3. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of hazardous substances in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ. Sewage is specifically addressed at 33 U.S.C. § 1322.

B. TERMS AND DEFINITIONS.

1. Graywater. Discarded water from deck drains, lavatories, showers, dishwashers, and laundries, as well as appropriate water (treated, hand washing, etc) from vessel medical facilities. Does not include industrial wastewater, infectious wastes and human body wastes.

2. Marine Sanitation Device (MSD). Any equipment on board a vessel or craft designed to either receive and treat sewage to a level acceptable for overboard discharge, or which receives or retains sewage on board for later discharge ashore or in waters where discharge is permissible. There are three classifications of MSDs:

   a. Type I. "Flow-through" and "discharge" device designed to receive and treat sewage aboard vessel and produce an overboard effluent with a fecal coliform count of not more than 1,000 per 100 milliliters and no visible floating solids.

   b. Type II. "Flow-through" and "discharge" device that produces an overboard effluent with a fecal coliform count of not more than 200 per 100 milliliters and total suspended solids of not more than 150 milligrams per liter.

   c. Type III. Collection, Holding and Transfer (CHT) system designed to collect and hold both sewage and graywater.

3. Sewage. Human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes.

4. Industrial Wastewater. Wastewater or semi-solid material generated in vessel processes such as manufacturing, production and maintenance (for example, metal plating, acid cleaning, photo processing, solvent cleaning and painting materials).

C. COAST GUARD POLICY.

1. Compliance with Regulations. To ensure compliance with state and Federal regulations regarding sewage and graywater:

   a. Vessels shall be equipped with MSDs designed to prevent the discharge of untreated or inadequately treated sewage, or of any waste derived from sewage (e.g., sludge), within the territorial seas (per 2.A.1 of this manual) of the United States. Table 3-1 on the following page provides a comparison of Federal discharge restrictions. Legal concerns regarding the Table shall be directed to your MLC, CG-0942 or CG-453.

   b. MSD installations shall include the capability for pumping collected sewage and graywater to appropriate shoreside reception facilities. Vessels shall be fitted with cam-lock sewage discharge connections in 4-inch, 2-1/2-inch, or 1-1/2-inch sizes, depending on the size of the vessel. Such fittings shall allow quick connect/disconnect with shoreside offloading hoses. Boats that have portable or removable MSDs are exempted from this requirement.

   c. Vessels visiting foreign ports shall be equipped with adapters to accommodate hoses having international-standard flanges specified by the International Maritime Organization in Annex IV, Regulation 11 of the International Convention on the Prevention of Pollution from Ships (MARPOL). Table 3-2 provides specifications for such adapters.

   d. Vessels of all sizes shall comply with sewage placard and label direction found in Naval Ships Technical Manual (NSTM) 593, “Pollution Control”. Boats with portable or removable MSDs may use the manufacturer’s provided placards and instructions in lieu of those required by NSTM 593.

   e. Vessels shall not dispose of industrial wastewater through the vessels’ sewage or graywater collection and transfer systems. Following use, vessels shall deliver vessel industrial wastewater to a shore activity for processing to determine if it has further use and, if not, disposal as waste.

TABLE 3-1
SUMMARY OF POLLUTION CONTROL DISCHARGE RESTRICTIONS
(Sewage and Graywater)

Area	Sewage	Graywater
Great Lakes	**No discharge of raw sewage (from CHT). Discharge of MSD-treated effluent allowed.**	**In the Great Lakes, graywater is treated the same as sewage. See the requirements of sewage.**
Designated "no-discharge" zones	**No discharge.**	**No discharge.**
U.S. Internal Waters and Territorial Seas (0-3 nm)	**No discharge of raw sewage (from CHT). Discharge of MSD-treated effluent allowed.**	**If capable of collecting and treating graywater through MSD, do so. If not, collect, hold and pump to shore facility. Otherwise, check with your MLC for state and local requirements.**
U.S. Contiguous Zone (3-12 nm)	**Discharge allowed.**	**Discharge allowed.**
> 12 nm	**Discharge allowed.**	**Discharge allowed.**
MARPOL *"Special Areas"* (1)	**Not applicable.**	**Not applicable**
Foreign Countries (0-12 nm)	**See LOGREQ. If not available, follow Port Visit Clearance or SOFA. Otherwise follow standards of host warships.**	**See LOGREQ. If not available, follow Port Visit Clearance or SOFA. Otherwise follow standards of host warships.**
Comments	• **Exemption allowed (direct discharge) to ensure safety of ship or those onboard.**	• **Obey state regulations regarding discharge of graywater.** • **Exemption allowed to ensure safety of ship or those onboard.**

Notes:

1) Special Areas where these restrictions currently apply: Mediterranean Sea, Baltic Sea, Black Sea, and Antarctic Ocean.

Acronyms:

MSD: Marine Sanitation Device (Type I or II)
CHT: Collecting and Holding Tank (Type III MSD)
OWS: Oil-Water Separator
OCM: Oil Content Monitor

TABLE 3-2

STANDARD DIMENSIONS OF FLANGES FOR DISCHARGE CONNECTIONS

Description	Dimension
Outside Diameter	210 mm (8 ¼ in)
Inner Diameter*	According to pipe outside diameter
Bolt Circle Diameter	170 mm (6 11/16 in)
Slots in Flange	4 holes 18 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. Slot width to be 18mm.
Flange Thickness	16 mm (5/8 in)
Bolts and Nuts	4, each of 16 mm diameter and of suitable length.

* For vessels having a molded depth of 5 m (16 ft) or less, the inner diameter of the discharge connection may be 38 mm (1.5 in).

2. Procedures. Vessels shall operate MSDs in accordance with the following procedures:

   a. Personnel shall properly operate and maintain MSDs installed aboard to prevent the overboard discharge of untreated or inadequately treated sewage, or any waste derived from sewage (e.g., sludge), within 0-3 NM of the U.S. territorial seas.

   b. While in port, vessels shall collect graywater in installed MSDs or graywater collection systems and discharge to shore facility.

   c. While within the Great Lakes or U.S. territorial seas, no discharge of untreated sewage or graywater is permitted, regardless of distance to land. Vessels equipped with a USCG-approved Type I or II MSD may discharge properly treated sewage or graywater, except within a "no-discharge zone" designated IAW 33 U.S.C. 1321(f).

   d. Except while in the Great Lakes, U.S. territorial seas or a Special Area, while operating beyond 3 NM from shore vessels may discharge all sewage and graywater

directly overboard. Vessels equipped with a USCG-approved Type I or II MSD shall treat all sewage prior to discharge.

e. Vessels shall not dispose of new or used oil of any kind, oily wastes, oily mixtures, solvents, petroleum products, or other industrial wastes to MSDs or graywater collection systems or dump them down sinks or deck drains. They shall containerize used solvents and industrial wastes for disposal ashore.

3. Ship-to-Shore Transfer. Coast Guard vessels shall follow these procedures in port:

a. While visiting U.S. ports, Coast Guard vessels equipped with Type III MSDs shall periodically pump their collected sewage and graywater to shoreside reception facilities.

b. While visiting non-Coast Guard or Navy ports, Coast Guard vessels shall request sewage reception facilities in logistics request messages (LOGREQs) or other pertinent documentation. Vessels shall use pier sewers when available. If sewers are not available, vessels shall use other sewage collection facilities such as barges or tank trucks. In the event no services are available, immediately contact OPCON for alternate procedures.

D. TRAINING. All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

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CHAPTER 4 – AIR EMISSIONS

A. LEGISLATION.

1. MARPOL. Annex VI (Prevention of Air Pollution from Ships).

2. The Clean Air Act (CAA) authorizes State and local governments to set standards for emissions of air pollutants. Federal law requires Federal agencies to comply with Federal, State, interstate and local air pollution requirements. Although most air pollution regulations address shoreside sources, Coast Guard vessels operating within U.S. and State waters may also be subject to certain regulations.

3 National Emission Standards for Hazardous Air Pollutants (NESHAP).

B. TERMS AND DEFINITIONS.

1. Coating. Any material that can be applied as a thin layer to a substrate and which cures to form a continuous solid film. Coatings include paints, primers, varnishes, lacquers, etc. Marine coatings meeting this definition are regulated under the NESHAP.

2. Domestic. Within the United States, its possessions, and territories.

3. General Use Coating. Any coating that is not a specialty coating. Marine coatings meeting this definition are regulated under the NESHAP.

4. Volatile Organic Compounds (VOCs). Photochemically reactive organic compounds that evaporate readily under normal temperature and pressure conditions. As a result of the tendency to evaporate readily, VOCs are primary contributors to the formation of ground level ozone.

C. COAST GUARD POLICY.

1. Compliance with Regulations**.** Coast Guard vessels shall comply to the extent practicable with applicable Federal, State and local regulations governing air pollution emissions. For assistance determining regulations, contact your MLC or CG-453. Many of the Coast Guard's legacy vessels have engines designed and built decades ago when emission standards were different than they are today. However, the Coast Guard will take all practicable measures to comply with today's standards.

2. Procedures. Ships shall follow these procedures:

   a. All engines shall be properly maintained and prudent start up and warm up procedures shall be observed. Since opacity is generally a concern when starting a cold engine and when going from a no- or low-load condition to a load condition, Coast Guard vessels shall adhere to maintenance schedules and plan events such as departures to include proper warm up procedures. If unsure about a particular

application, the cognizant MLC or NESU shall be consulted for assistance. The guidance does not preclude urgent departures for necessary operations.

b. In port, Coast Guard vessels shall minimize operation of boilers and diesel engines by using shore-provided "hotel" services whenever operational requirements permit. Vessels shall limit blowing of boiler tubes in port to the minimum necessary to conform with provisions of NSTM, Chapter 221. Incinerators shall not be operated within 12 NM of land. Operational tests of incinerators within 12 NM of land must be coordinated through your MLC.

c. Vessels shall use only approved solvents, paints, fuels, lubricants and chemicals on board. The Safety and Environmental Health Manual, COMDTINST M5100.47 (series) provides guidance on hazardous and prohibited materials on vessels. For a list of chemical cleaners authorized for use aboard Coast Guard vessels, see Navy instruction NAVSEA S6480-A4-CAT-010 “Authorized chemical cleaning products & dispensing systems catalog”.

3. Asbestos. Only properly trained personnel equipped with appropriate personal protective equipment shall perform vessel emergency or operational readiness repairs on asbestos containing materials (ACM). Refer to the Asbestos Control Exposure Manual, COMDTINST M6260.16 (series) for detailed guidance. This reference also discusses other asbestos work, including the removal of asbestos-containing deck tiles, replacement of asbestos-containing gasket/packing material and preventive maintenance on asbestos-containing brake assemblies. Vessels shall properly containerize any asbestos material removed during vessel repair actions performed by ship's force and dispose of it without release of asbestos fibers into the environment. In preparation for disposal ashore, repair personnel must adequately wet asbestos residue before double bagging it in heavy-duty (6 mil thickness) plastic bags or other suitable impermeable containers. Repair personnel shall provide standard asbestos danger labels on all bags or containers containing asbestos material. Other applicable laws, regulations and contract requirements govern asbestos removal by Coast Guard shore facilities or contractors.

4. Ozone Depleting Substances (ODS). Ozone Depleting Substances are defined in Section 608 of the Clean Air Act (CAA). Refer to Appendix C of COMDTPUB P6280.3 (series), Management Guide for Refrigerants, Coolants, and Fire Suppressants for a comprehensive list of ODSs.

a. Coast Guard vessels with air condition and refrigeration (AC&R) systems with an installed refrigerant charge of more than 50 pounds that contain ODSs such as CFC-11 (R-11), CFC-12 (R-12), or CFC-114 or ODS substitute material such as HFC-134a or HFC-236fa shall meet the following annual performance goals:

(1) Maintain maximum annual leakage rate of no more than 15 percent of total installed refrigerant charge of air conditioning equipment.

(2) Maintain maximum annual leakage rate of no more than 35 percent of total installed refrigerant charge of ship stores and cargo refrigeration.

(3) Vessels shall recover ODSs prior to maintenance on AC&R systems and fire protection systems. Coast Guard personnel shall not intentionally release chlorofluorocarbons (CFCs) or Halons during the servicing, maintenance, repair and disposal of any AC&R or firefighting equipment. Only maintenance personnel trained per the Cutter Training and Qualification Manual, COMDTINST M3502.4H shall perform maintenance on equipment containing such substances. Under these procedures, maintenance personnel shall use only approved procedures for minimizing loss of ODSs, regardless of the vessel's location.

(4) Coast Guard personnel who perform maintenance on vessel AC&R systems shall keep records of maintenance actions, names of technicians performing work, pounds of refrigerant removed and pounds of refrigerant added. Vessels shall keep records to calculate annual equipment leakage rates and retain them for 3 years. Refer to COMDTPUB P6280.3 (series) for more information.

(5) Vessels shall restrict the use of ODS-containing solvents for vessel equipment to those procedures specifically required.

b. ODS Reserve. The Department of Defense (DoD) established and maintains the ODS reserve to support mission-critical ODS requirements. Vessel CFC for use in AC&R systems and Halon for use in firefighting systems are mission-critical-designated. The ODS reserve material is set aside for these vessel systems. ODS requisitioning procedures are outlined on CG-45's page on CG Central or can be obtained from your MLC Type Desk Manager.

5. Vessel Marine Coating Use.

a. Vessel Recordkeeping and Reporting Requirements. While undergoing a repair availability in a shipyard and when requested by a Coast Guard facility or MLC, vessels must record and report marine coating used each day while in the shipyard. Records shall include the following information:

(1) Coating Type (e.g. general use, non-skid, special marking, etc.)

(2) Color

(3) National Stock Number (NSN)

(4) Manufacturer Name and/or Commercial and Government entity (CAGE) code

(5) Manufacturer product name and part number

(6) Volume of coating used

(7) VOC content of coating

(8) Coating certification (when available)

(9) Date used.

b. Restrictions on Marine Coating Use. Vessels are responsible for not using materials exceeding permissible volatile organic compound (VOC) limits listed in Appendix C of the Coatings and Color Manual, COMDTINST M10360.3 (series).

c. Restrictions on Use of Thinners. Ship's forces shall minimize the thinning of marine coatings. Thinning is only authorized under very specific circumstances, detailed in Chapter 3 of the Coatings and Color Manual, COMDTINST M10360.3 (series).

d. Marine coating practices. Vessels shall implement the following marine coating work practices: (a) minimize spills of marine coatings, (b) ensure marine coating containers are intact and leak-free and (c) ensure marine coating containers are closed when not in use.

D. TRAINING. All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 5 – BILGES, OIL AND OILY WASTE

A. LEGISLATION.

1. International Convention for the Prevention of Pollution from Ships, 1973/78, as amended (MARPOL). Annex I of MARPOL addresses oil pollution from vessels at sea. MARPOL prohibits the discharge into the sea of any oil or oily mixtures from a ship except under certain circumstances. For treated discharges, the following conditions must be met:

   a. The vessel is proceeding *en route*.

   b. The oily mixture is processed through oil filtering equipment that automatically stops when the oil content of the effluent exceeds 15ppm;

   c. The oil content of the effluent without dilution does not exceed 15 ppm.

   The Coast Guard will comply with MARPOL and limit discharges of oil mixtures and bilge wastes through properly functioning pollution prevention equipment.

2. The Act to Prevent Pollution from Ships (APPS), 33 U.S.C. § 1901, *et. seq.*. APPS implements the stringent oil and oily waste discharge requirements of Annex I of MARPOL. Although public vessels are not strictly subject to MARPOL Annex I or APPS, the Act requires heads of Federal departments to prescribe standards for ships under their authority that are consistent with those of the MARPOL Protocol "so far as it is reasonable and practicable without impairing the operations or operational capabilities of such ships." This instruction serves as that direction.

3. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of oil in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ. U.S. EPA regulation provides that a discharge of oil in a harmful quantity is one that violates applicable water quality standards or causes a sheen on the water. The oil content within a discharge that is sufficient to cause a sheen varies with type of oil, sea state, lighting, and viewing angle. In general, in excess of 15 ppm of oil may be sufficient to cause a sheen.

B. TERMS AND DEFINITIONS.

1. Bilge Waste. A mix consisting primarily of water, with some oil and other unspecified substances, resulting from the normal operation of a vessel. Bilge waste is an oily mixture and considered an oily waste. Even if no oil is visible, it shall still be treated as an oily mixture. Under normal circumstances, bilge waste does not contain hazardous materials or other constituents that would classify it as a hazardous waste.

2. Oil. For the purposes of compliance with MARPOL and APPS, the term "oil" refers to any petroleum-based fluid or semisolid, including crude oil, liquid fuels (like gasoline, kerosene, diesel), lubricating oil, waste oil, oil sludge and oil refuse. Oil also includes synthetic-based lubricating and transmission products. MARPOL, Annex II classifies non-petroleum-based oils, such as vegetable oils, as noxious liquid substances. However, for the purposes of Clean Water Act compliance, the term "oil" refers to oil of any kind or in any form, including petroleum, fuel oil, sludge, oil refuse, vegetable oil, and oil mixed with waste other than dredge spoils.

3. Oily Mixture. As defined in 33 C.F.R. 151.05, a mixture, in any form, with any oil content. ''Oily mixture'' includes, but is not limited to—

   a. Slops from bilges;

   b. Oil residue; and

   c. Oily ballast water from fuel oil tanks.

4. Oily Rags. Cleaning rags or other sorbents contaminated with oil as defined in section 5.B.2. Does not include sorbents contaminated with vegetable oils, liquid or solid shortening, or animal fat/lard used in food preparation.

5. Oily Waste. Oil mixed with water or other fluids such that the mixture is no longer useful.

6. Reclamation. The processing of used oil to recover useful oil products.

7. Sheen. An iridescent appearance on the surface of the water.

8. Used Oil. Oil whose characteristics have changed since being originally refined but which may be suitable for future use and is economically reclaimable. Used oil excludes synthetic-based lubricating and transmission products.

9. Waste Oil. Oil whose characteristics have changed markedly since being originally refined and has become unsuitable for further use.

C. COAST GUARD POLICY.

NOTE

When seeking to comply with international and US oil discharge regulations, commanding officers should be aware that the definition of oil may not be consistent worldwide. For example, a discharge of vegetable oil that causes a sheen, while not a violation of MARPOL Annex I, is a violation of the U.S. Clean Water Act.

1. Clean Water Act Compliance. In compliance with the Clean Water Act, no discharge that produces a sheen is permitted within the territorial sea and contiguous zone of the U.S., and no discharge of oil which may effect the natural resources is permitted in the EEZ.

2. APPS Compliance. Vessels operating in MARPOL Annex I special areas shall refrain from discharging any oil or oily waste to the extent practicable without endangering the vessel or impairing its operations or operational effectiveness. Oil and oily waste discharges that are necessary in Annex I special areas or elsewhere on the high seas shall comply with the requirements listed below. Refer to Section 5.C.4 for operational and management requirements.

   a. Vessels With Oily Water Separators (OWSs) and Oil Content Monitors (OCMs). Coast Guard vessels equipped with OWS and OCM shall limit oil and oily discharges to those that meet the following conditions in conjunction with Table 5-1:

      (1) The vessel is proceeding *en route.*

      (2) The oily mixture is processed through oil filtering equipment that automatically stops when the oil content of the effluent exceeds 15ppm;

      (3) The oil content of the effluent without dilution does not exceed 15 ppm.

      Ships shall report equipment casualties that either threaten or result in a discharge of oily water through the Casualty Report (CASREP) system. The initial report shall note the potential for discharge. All subsequent status reports shall report the frequency and approximate amount of actual discharges. See also Chapter 9 regarding spills for reporting requirements.

   b. Vessels Without an Operating OWS But With an Oily Waste Holding Tank (OWHT). Vessels without an operating OWS but with a OWHT shall, to the maximum extent possible, without endangering the vessel, direct all oily bilge water to the OWHT for shore disposal. Ships shall report equipment casualties that either threaten or result in a discharge of oily water through the Casualty Report (CASREP) system. The initial report shall note the potential for discharge. All subsequent status report s shall report the frequency and approximate amount of actual discharges. See also Chapter 9 regarding spills for reporting requirements.

   c. Vessels With Neither an Operating OWS nor OWHT. Vessels with neither an operating OWS nor OWHT shall retain all oily bilge water for shore disposal to the maximum extent possible without endangering the vessel. Unpowered vessels and vessels using only outboard engines often have open-hull design and have no machinery space bilges. As such those vessels may discharge bilgewater / deck runoff so long as no visible sheen is present. If a sheen exists, except in emergency, the bilgewater /deck runoff shall be retained for proper shore side disposal. Vessels shall report equipment casualties that either threaten or result in a discharge of oily water

through the Casualty Report (CASREP) system. The initial report shall note the potential for discharge. All subsequent status reports shall report the frequency and approximate amount of actual discharges. See also Chapter 9 regarding spills for reporting requirements.

TABLE 5-1

SUMMARY OF POLLUTION CONTROL DISCHARGE RESTRICTIONS

(Bilges and Oily Waste)

Area	Bilges / Oily Waste
Great Lakes	**No discharge. OWS use is not permitted.**
Designated "no-discharge" zones	**No discharge.**
U.S. Internal Waters and Territorial Seas (0-3 nm)	**Use of OWS highly discouraged. If used, report use and particulars to CG-453. No sheen allowed. Discharge must be through OWS and OCM and contain less than 15 ppm of oil. Preferred method is to pump to shore facility.**
U.S. Contiguous Zone (3-12 nm)	**Same as 0-3 nm.**
> 12 nm	**Discharge must be through OWS and OCM and contain less than 15 ppm of oil. See Chapter 5 of this manual.**
MARPOL *"Special Areas"* (1)	**No discharge if practicable. If not practicable, discharge must be through OWS and OCM and contain less than 15 ppm of oil, and be as far from shore as practicable, and the vessel must be proceeding en route.**
Foreign Countries (0-12 nm)	**Discharge must be through OWS and OCM and contain less than 15 ppm of oil. See LOGREQ. If not available, follow Port Visit Clearance or SOFA. Otherwise follow standards of host warships.**
Comments	• **State/local rules may vary; check with port authorities.** • **Exemption allowed to ensure safety of ship or those onboard.** • **Ships must log discharges of oily wastes, whether to shore facility or via OWS.**

3. Vessel Equipment. The Coast Guard shall install the following equipment/systems on cutters to allow proper segregation and collection of vessel waste oil:

   a. OWSs, OCMs, OWHTs, and waste oil tanks (WOTs) to allow adequate processing of vessel oily waste prior to its discharge overboard and to allow proper segregation and collection of vessel waste oil; All construction with a keel lay date of 1 Jan 2005 or later that is equipped with an OWS, shall have an IMO Marine Environment Protection Committee (MEPC) 107(49)-compliant, certified OWS. All retrofits or renewals of existing OWSs shall be with MEPC 107(49)-compliant and certified OWSs.

   b. Bilge pumps (oily waste transfer pumps), piping risers, and weather-deck connections to allow safe and convenient ship-to-shore transfer of oily waste.

   c. Cam-lock discharge connections, 2-1/2-inch for Oily Waste/Waste Oil discharge to allow quick connect/disconnect with shoreside offloading hoses.

   d. Oily Waste/Waste Oil adapters to accommodate hoses with standard International Maritime Organization (IMO) flanges for use by Coast Guard vessels visiting foreign or non-Coast Guard ports.

   e. Mechanical seals on appropriate vessel pumps to minimize the quantity of oily wastewater collected in ship bilges.

   f. Tank level indicators to reduce the potential for overboard spills during fueling, oil, and oily waste handling and transfer operations.

   g. Vessels of all sizes shall comply with oil placarding and labeling direction found in NSTM 593, “Pollution Control”.

4. Operational and Management Requirements**.** Vessel operational and management requirements for bilge water, oil, oily waste, and vessel oil pollution abatement are described in the following paragraphs. Section 3 of NSTM 593 provides detailed procedural instructions implementing these requirements.

   a. Bilge Water and Oily Waste.

      (1) Vessels shall minimize bilge water and oil contamination of bilge water. Usually the most efficient approach is to eliminate water from collecting in the bilge because it makes up the majority of the volume. Mechanical seals in oil and water pumps and proper segregation of oily and non-oily wastewater will greatly reduce the generation of oily waste.

      (2) Vessels that ballast their fuel tanks (not segregated ballast tanks) should treat the ballast water taken aboard as an “oily mixture”. See paragraph 10.C.5 in this manual for de-ballasting procedures.

(3) Contaminated bilge water and oily waste. Vessels shall not use bilge cleaners or chemical agents that promote chemical emulsion (i.e., detergents and surfactants) for machinery space cleaning. Prohibition of these substances will enable OWSs to perform more effectively. Short-lived detergents identified in NAVSEA S6480-A4-CAT-010 "Authorized chemical cleaning products & dispensing systems catalog" are recommended for bilge cleaning. In port, vessels shall offload oily waste containing chemical emulsion agents or contaminants from other than routine sources of bilge water to shore receiving facilities. If oily waste has become contaminated from other than routine sources, such as aqueous film-forming foam (AFFF), solvents, anti-freeze, or other Hazardous Materials, vessels shall advise the receiving shore facility prior to offload. Since some States may consider bilge water to be contaminated, vessels in those States shall consult with the host receiving facility for collection and discharge requirements.

(4) Bilge water and oily waste disposal in port. Coast Guard policy is to maximize separation, recycling, and reuse of oil. While in a Coast Guard or DOD port, vessels shall dispose of bilge water and oily wastes per supporting activity guidance using one or more of the following approaches:

(a) Permanent shore reception facilities. In ports that provide shore oily waste collection, shoreside collection of bilge water and oily wastes followed by recovery of recyclable products is the preferred method of dealing with these vessel wastes.

(b) Ship waste offload barges (SWOBs). If shore facilities are unavailable, vessels may discharge to a SWOB.

(5) Emergency dewatering. Vessels shall not use eductors to dewater bilges containing oily waste, except in emergency situations when OWS systems (including OWHTs) are not available or are not of sufficient capacity to handle the immediate flow requirements. If a vessel must use an eductor, it shall make every effort to discharge beyond 12 NM from land and while underway. The vessel shall make an Machinery Log entry concerning eductor use to discharge bilge waste overboard, recording location, date, contents of bilge and estimated quantity. The vessel's OPCON and CG-45 shall also be notified. If at any time a sheen is created on the water, the Commanding Officer shall make reports per Chapter 9 of this manual.

b. Waste/Used Oil. Vessel personnel shall:

(1) Make maximum use of available port facilities for disposal of all waste/used oil products prior to departing from and upon returning to port. Those facilities include pierside collection tanks, tank trucks, contaminated fuel barges, and SWOBs.

(2) Collect synthetic lube oils and hydraulic oils separately from other waste/used oils. Vessels that do not have a system dedicated to collect used synthetic oils shall use 5- or 55-gallon steel containers, properly labeled per the Hazardous Waste Management Manual, COMDTINST M16478.1(series) for eventual shore recycling. All personnel handling synthetic oil shall wear protective clothing, as specified in material safety data sheets (MSDSs).

(3) Retain containers (such as drums, cans, etc.) in which oil products were originally packaged and properly label them per the Hazardous Waste Management Manual, COMDTINST M16478.1(series) for storing and transferring oil ashore.

c. Fuel Transfer. Vessels shall fuel, defuel, transfer fuel internally, and offload oil in restricted waters during normal daylight working hours, when operating schedules permit. They shall conduct these evolutions with well-trained personnel and per the bills listed in the Engineering Casualty Control Manual and Naval Engineering Manual COMDTINST M9000.6(series). All involved personnel should be thoroughly briefed prior to each fueling evolution. They shall observe the following precautions to minimize oil spills:

(1) Maintain topside watches at all locations of possible spills and arrange direct communication to fuel transfer pump stations.

(2) Establish check-off lists and procedures for valve alignment and transfer operations. Double-check alignment of all transfer system valves.

(3) Use only qualified personnel to perform the detailed transfer procedures.

(4) Continuously monitor each tank level while filling with fuel. Use remote tank-level indicators when available, as the primary method of obtaining tank levels.

(5) Prior to actual fuel transfer, transfer personnel shall inform the responsible ship's officer (commanding officer, command duty officer, and/or officer of the deck) and the fuel supplier that the ship is ready to commence fueling operations.

(6) Ensure communications are established and maintained with fuel delivery personnel, being mindful of any language barriers. Ensure emergency procedures are understood and agreed upon before commencing operations.

d. Fuel Tank Stripping.

(1) Vessels shall not use eductors to strip fuel or cargo tanks.

(2) On vessels equipped with fuel tank stripping systems, vessels shall not discharge fuel tank strippings overboard.

e. Oil-contaminated Solid Waste.

(1) Vessels shall containerize oil and fuel filters and other items soaked with oil for shore disposal.

(2) Ships shall store all rags that are not incinerated or recycled aboard in suitable closed containers designed to contain flammable or combustible materials in a space fitted with adequate ventilation and fire suppression systems.

f. Recording oil movement.

(1) Entries shall be made in the Machinery Log on each occasion, on a tank to tank basis if appropriate, whenever any of the following machinery space operations take place: ballasting or cleaning of fuel oil tanks; discharge of dirty ballast or cleaning water from fuel oil tanks; disposal of oily residues (sludge); and discharge overboard or disposal otherwise of bilge water that has accumulated in machinery spaces. Entries shall include, at minimum, the source and destination of the movement.

(2) In the event of an emergency, accidental or other exceptional discharge of oil or oily mixture, a statement shall be made in the Machinery Log of the circumstances of, and the reasons for, the discharge. Additionally, the Commanding Officer or Officer in Charge shall make an entry in the vessel's Unit Log that states what notifications were made and when. See Chapter 9 of this manual.

(3) Each operation shall be fully recorded without delay in the Machinery Log. Each completed operation shall be signed by the person or persons in charge of the operations concerned.

5. Exemption From Oily Waste Restrictions. Exemption from oily waste restrictions may be necessary at certain times and under certain circumstances. Instances of specifically authorized exemptions include the following:

a. A Coast Guard vessel may discharge oily waste to the sea in a situation in which a commanding officer or officer in charge decides that a discharge of such wastes is required to ensure ship or crew safety. Commanding officers or officers in charge shall minimize such discharges and shall treat the discharge as an oil and hazardous substance spill ensuring the recording of details of the discharge (nature, quantity and geographic location) in the Machinery Log and immediately report it per the requirements of Chapter 9 of this manual.

D. **TRAINING.** All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 6 – HAZARDOUS WASTE AND HAZARDOUS MATERIALS

A. LEGISLATION.

1. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of hazardous substances in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ. U.S. EPA regulation provides a list of hazardous substances and their reportable quantities at 40 CFR 117.

2. The Resource Conservation and Recovery Act (RCRA). RCRA regulates generation, treatment, storage and disposal of hazardous waste. RCRA provides that Hazardous Waste generated on public vessels is not subject to storage, manifest, inspection or record keeping requirements until the ship transfers such waste ashore or transfers it to another public vessel within the territorial waters of the U.S. and then only after that vessel stores it aboard for more than 90 days after the date of transfer.

3. The Toxic Substances Control Act (TSCA). Through TSCA, Federal restrictions govern the manufacture, use, labeling and disposal of polychlorinated biphenyls (PCBs), asbestos and asbestos-containing waste.

4. Superfund Amendments and Reauthorization Act (SARA). SARA requires notification of release of specific amounts of hazardous substances to Federal, State, and Local emergency response and/or coordinating agencies. Reporting is required even if emergency response is not possible or required. Failure to report may be a criminal violation.

5. Occupational Safety and Health Act. The Occupational Safety and Health Administration establishes regulations under Occupational Safety and Health Act. The regulations control the handling and use of hazardous materials, as well as information that must be provided to workers who come into contact with the materials. The Material Safety Data Sheet (MSDS) is the document that is used to supply information regarding use and exposure.

6. Hazardous Material Transportation Regulations (49 C.F.R. 100-185). The Department of Transportation regulates the packaging, handling, and transportation of hazardous material under 49 C.F.R. 100-185. This includes materials that are ordered for delivery and transported from the ship on a common carrier.

7. Federal Facilities Compliance Act. This Act amended RCRA to subject federal activities that may result in the disposal or management of solid waste and hazardous waste to Federal, State, interstate, and local requirements. The act also defined when hazardous materials on board a vessel became a hazardous waste. When hazards materials are no longer needed or can be used and they meet the definition of a hazardous waste, the materials will not be considered a hazardous waste until it is moved to shore.

B. TERMS AND DEFINITIONS.

1. Hazardous Material. Any material that, because of its quantity, concentration or physical, chemical or infectious characteristics, may pose a substantial hazard to human health or the environment. In the case of ships, this includes used or excess Hazardous Materials (HM). Any material that is REQUIRED to have an MSDS is a Hazardous Material.

2. Hazardous Material Contaminated Rags. Cleaning rags or other sorbents contaminated with solvents, adhesives, paint, or other HM defined in section 6.B.1.

3. Used or Excess Hazardous Material. HM for which there is no further, immediate use on board the ship possessing the material. Such material may ultimately be used on another ship or within the shore establishment for the same purpose or a purpose other than initially manufactured or by commercial industry. Used HM is material that has been used in a vessel process. Excess HM is unused material in full, properly sealed containers. Useable HM is defined as used HM that has further usefulness.

4. Hazardous Waste. A solid waste or combination of solid wastes, which because of its quantity, concentration or physical, chemical properties meets the definition of Hazardous Waste (HW) in 40 C.F.R. 261.3. The term solid waste includes liquid, semi-solid or contained gaseous material. Note: some medications carried on board meet this definition.

5. Hazardous Substance. Defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and later amended in SARA (42 U.S.C. 103). Typically, asbestos, lead, mercury, and PCBs are hazardous substances possibly encountered aboard ship. Asbestos was restricted for shipboard uses in the 1980s; please see Asbestos Exposure Control Manual, COMDTINST M6260.16A for more information. PCB manufacture was banned in 1979.

C. COAST GUARD POLICY.

1. Procedures. Vessels shall follow these procedures in the management of used/excess HM:

   a. Coast Guard vessels shall not discharge overboard any regulated material unless specifically permitted by Coast Guard policy.

   b. Under no circumstances may a ship collect used/excess HM from other ships or HW from shore facilities and transport it to sea for the purpose of disposal.

2. Ship-to-Shore Transfer.

   a. Ships shall transfer used or excess HM to a shore activity for determination of disposition.

b. Prior to transfer ashore, ships shall segregate, containerize and label used HM with contents, safety warnings, and transportation placards. The host facility can provide guidance as to specific requirements. Failure to abide by requirements may delay or even prevent offload ashore in a timely manner. If a container's contents are unknown, the host will work with the ship to determine what they are, though a laboratory analyses fee may apply.

c. When visiting non-Coast Guard ports and foreign ports, Coast Guard ships shall offload used HM only when necessary and feasible. The ship shall identify in the LOGREQ the types and amount of used HM to be offloaded. If unable to find adequate facilities at non-Coast Guard ports, the ship shall hold HM for offloading at a Coast Guard port. All HM shall be properly labeled and containerized. If offload is necessary in foreign ports, commanding officers must ensure compliance with applicable customs laws and the SOFA.

d. Prior to entering a shipyard for an availability, ships shall:

(1) To the maximum extent feasible, offload used/excess HM at a Coast Guard or other public facility.

(2) Identify to the Ship Superintendent or Port Engineer responsible for the shipyard, a ship HM coordinator for the availability. This individual shall be granted authority and resources to ensure vessel compliance with HM and HW management procedures and site specific management practices established by the Ship Superintendent or Port Engineer.

(3) Hazardous waste generated aboard by or related to a ship at a contractor facility is the responsibility of the contractor for proper handing and disposal

(4) Identify to the Ship Superintendent or Port Engineer during pre-availability planning conferences the types and amounts of HW anticipated by ship's force during the availability.

(5) Comply with all established HW and HM management practices and those site-specific procedures delineated by the Ship Superintendent or Port Engineer.

e. For work performed at the Coast Guard Yard, the Yard Commanding Officer shall promulgate instructions to ensure compliance with this manual.

3. Ship-to-Ship Transfers.

a. Ship to ship transfers of HM are only permitted when the receiving ship requires the material for use.

4. Transporting Shore-Generated Hazardous Waste Aboard Ship. Coast Guard vessels shall not accept any hazardous waste from any shore facility at any time.

D. <u>TRAINING.</u> All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 7 – SOLID WASTE

A. LEGISLATION.

1. MARPOL. Annex V of MARPOL addresses vessel solid waste discharge at sea that is defined as garbage. Annex V establishes three major requirements:

   a. No discharges of plastic at sea worldwide.

   b. Outside of special areas, ships shall not discharge garbage within 3 NM from shore. Ships may discharge comminuted, pulped, or ground wastes including food wastes, paper, rags, glass, metal, bottles, crockery and other similar refuse whose discharge is able to pass through a screen with a mesh size no larger than 25 mm (1 in) between 3 and 12 NM from shore. The same material may be discharged beyond 12 NM from shore if not passed through comminuter or grinder. Ships may discharge dunnage, lining and packaging materials which will float beyond 25 NM from shore.

   c. Within special areas, food waste is the only solid waste discharge authorized. Ships may discharge food waste beyond 12 NM from shore. Details on the definition of the term special area are available in Section 7.B.5.

   When the garbage is mixed with other discharges having different disposal or discharge requirements the more stringent requirements apply.

NOTE:

MARPOL Annex **V** (garbage) special areas and special areas that are in effect are not necessarily the same as those specified in MARPOL Annex **I** (oil)

The MARPOL Convention provides that the above Annex V requirements do not strictly apply to warships. Party states (including the U.S.) must, however, establish standards for their warships that require such vessels to act in a manner consistent, so far as is reasonable and practicable with the convention, without compromising operational effectiveness.

2. Act to Prevent Pollution from Ships (APPS)(MARPOL Annexes I, II, and V per 33 U.S.C. 1901 et seq.) APPS implements MARPOL Annex V for the United States. APPS requires that U.S. public vessels, including warships, comply with MARPOL Annex V requirements. The U.S. requirements for the disposal of garbage at sea are summarized in table format at Appendix A to 33 C.F.R. Sections 151.51-151.77.

3. Marine Protection, Research, and Sanctuaries Act , also known as Ocean Dumping Act (33 U.S.C. 1401 et Seq.). The Act prohibits U.S. entities from transporting material from the U.S. or from any other place for the purpose of dumping it into ocean waters, unless a permit has been obtained from the U.S. EPA. In general it does not apply to waste that is generated aboard ships while underway.

4. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of hazardous substances in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ. Discharge of solid waste pollutants beyond 3 NM from shore is regulated under APPS.

5. U.S. Department of Agriculture (USDA). USDA Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) office enforces Federal regulations that quarantine and control movement into the United States of certain ship board waste specifically defined as 'regulated garbage' under two applicable Codes of Federal Regulations (C.F.R.):

   a. 7 C.F.R. 330.400 'Federal Plant Pest Regulations', which were established under the authority of the Plant Protection Act (PPA), which became law as part of the Agricultural Risk Protection Act of 2000.

   b. 9 C.F.R. 94.5 'Animal and Animal Products' regulations, which were established under the authority of the Animal Health Protection Act (AHPA) consolidating all animal quarantine and related laws, which became law as part of the Farm Security and Rural Investment Act of 2002 (better known as the '2002 Farm Bill').

   This usually applies to provisions taken on outside the continental U.S.

6. Decedent Affairs. Environmental Protection Agency Regulation 229.1 provides a general permit to transport human remains from any location for the purpose of burial at sea and to bury such remains subject to certain conditions. See the Decedent Affairs Guide, COMDTINST M1770.1 (series).

B. TERMS AND DEFINITIONS.

1. Foreign Source Garbage. Goods, food wastes, wrappers, containers and disposable materials originating in any foreign country (excluding Canada) or Hawaii, Puerto Rico, U.S. Virgin Islands, American Samoa, Guam and the Trust Territories of the Pacific Islands.

2. Food Waste. Spoiled or unspoiled victual substances, such as fruits, vegetables, dairy products, meat products, food scraps and food particles.

3. Garbage. For consistency with international law, this chapter adopts the MARPOL Annex V definition of garbage: All kinds of victuals and domestic and operational waste generated during the normal operation of the ship. The MARPOL term "garbage" means

all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically except for those substances defined or listed in other Annexes to the Convention.

4. Pulped Garbage. Pulped, ground or comminuted garbage capable of passing through a screen with openings no greater than 12 mm (0.47 in).

5. Special Area. A sea area where, for recognized technical reasons in relation to its oceanographic and ecological condition and to the particular character of its traffic, enhanced efforts are required to minimize pollution from ships. The IMO designates Annex V special areas. To date, the special areas in effect internationally are: the Mediterranean Sea area, the Baltic Sea area, the Black Sea area, the Red Sea area, the "Gulfs area", the North Sea area, the Antarctic area and the Wider Caribbean Region, including the Gulf of Mexico and the Caribbean Sea (specific definitions of these areas are available in Regulation 5, Section 1 of MARPOL Annex V).

C. **COAST GUARD POLICY.** Requirements applicable to garbage discharge at sea include both legal requirements and requirements that the Coast Guard has adopted as a matter of policy to enhance protection of the marine environment.

1. Plastic Discharges.

   a. Ships shall minimize the volume of plastic material taken to sea that may become waste while at sea. They shall replace plastic disposable items with non-plastic items where possible. If appropriate, ships shall remove plastic wrapping and shipping materials from supply items before bringing them on board. They shall minimize the amount of plastic supplies used.

NOTE:

The Coast Guard will increasingly use plastic CD-ROM disks for distribution of directives. When superseded, they become plastic wastes and ships at sea shall not dispose of them into the sea.

   b. Plastic Retention. Discharges of plastics to the marine environment from Coast Guard vessels are prohibited. Ships shall report equipment casualties that either threaten or result in a discharge of plastics through the CASREP system. The initial CASREP shall note the potential for discharge and list CG-453 as an addressee. The ship shall report the commencement, duration and amount of such plastics discharges to the appropriate operational commander.

   c. Release of Military Equipment Containing Plastic. The plastic retention requirements apply only to disposal of plastic waste. These requirements do not apply to normal

use of expendable military equipment that contains plastic, such as targets, weather balloons, sonobuoys, etc., because the plastic in these items is not considered "waste" when normal use of the items results in their release into the ocean. However, in keeping with Coast Guard policy to protect the marine environment, expendable items that can be retrieved after use, particularly targets, should be retrieved if safe and practicable to do so. Once collected after use, plastic components of such items should be regarded and managed as plastic waste.

2. Non-Plastic Garbage Discharges. All references to "garbage" within this subsection refer to non-plastic garbage discharges.

   a. No garbage discharges shall occur within 3 NM of any coastline.

   b. Ships equipped with pulpers and garbage disposals may be configured to discharge either to the graywater system or directly overboard. Placards shall be posted stating where the effluent goes and the proper handling as described in other sections of this manual. If configured to discharge to the graywater system, the use of pulpers or disposals within 3 NM of any coastline is discouraged in order to maximize necessary sewage holding capacity and thus reduce the risk of inadvertent overboard discharges of sewage.

      NOTE: Fluorescent light bulbs contain a small amount of mercury and shall not be broken, but shall be retained intact for shore disposal.

   c. If a vessel does not have pulper/shredder equipment or this equipment is inoperable, it may discharge unprocessed garbage beyond 25 NM from any coastline. Vessels shall use available means to cause unprocessed garbage to sink as rapidly as possible. When required to make unprocessed garbage discharges to a special area, the commanding officer shall note the details of such a discharge (date of discharge, special area involved, and nature and amount of discharge) in the vessel's Unit Log. Ships shall report equipment casualties that either threaten or result in a discharge of unprocessed garbage to a special area through the CASREP system. The initial CASREP shall note the potential for discharge. Reports of such discharges will be made to Commandant (CG-453) per Section 7.C.3.

   d. Vessels equipped with incinerators may use them when operating beyond 12 NM from land for the disposal of non-plastic and non-hazardous garbage only.

   e. Transporting any material to sea for the purpose of dumping requires a permit from the U.S. EPA. In most cases, obtaining a permit is a complex undertaking and beyond the capability of afloat units. Coast Guard vessels are prohibited from taking on any material in port for the purpose of dumping it at sea.

   f. Although the at-sea disposal of garbage by ships is permissible (as indicated above), international guidelines encourage the use of port reception facilities as the primary means of vessel garbage disposal, whenever practical. This means that surplus

materials that can reasonably and safely be stored on board, such as damaged equipment or office furniture, shall be retained aboard for shore disposal.

3. Hull Preparation and Painting. Direction for hull preparation and painting is contained in Chapter 3 of the Coatings and Color Manual, COMDTINST M10360.3 (series).

4. Foreign Food and Garbage.

   a. Coast Guard ships shall comply with USDA regulations pertaining to ship introduction of foreign source garbage into the U.S., its territories and possessions. California has special regulations – contact MLC Pacific for specific information.

   b. If practicable, ships shall totally consume all produce (fruits and vegetables) bought in any foreign port or dispose of it beyond 25 NM from U.S. shores. If not disposed of before entering within 25 NM from shore, ships shall segregate such produce as food wastes and dry materials (packaging, etc.) for special disposal ashore by one of the following USDA-approved methods:

      (1) Cooking by steam or other heat source in a leakproof container at 212^{o}F for 30 minutes and disposal of residues by burying (sanitary landfill methods).

      (2) Incinerating in an incinerator approved by the EPA or IMO.

      (3) Grinding and flushing through a ship's CHT system (when installed) to a USDA-approved sewage system ashore.

   c. The standards given above do not preclude discharge of any solid waste in an emergency when failure to do so would clearly endanger the health or safety of vessel personnel.

5. Labels and placards. Vessels of all sizes shall comply with solid waste placard and label direction found in NSTM 593, “Pollution Control”. All waste receptacles shall have labels prominently displayed on them or in the immediate vicinity describing what is and is not acceptable waste.

D. TRAINING. All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

TABLE 7-1

SUMMARY OF POLLUTION CONTROL DISCHARGE RESTRICTIONS

(Garbage (plastics and non-plastics))

Garbage Type	All Vessels Except Fixed or Floating Platforms and Associated Vessels		Vessels Fixed or Floating Platforms & Assoc. Vessels [3] (33 CFR 151.73)
	Outside special areas (33 CFR 151.69)	In special areas [2] (33 CFR 151.71)	
Plastics—includes synthetic ropes and fishing nets and plastic bags.	Disposal prohibited (33 CFR 151.67).	Disposal prohibited (33 CFR 151.67).	Disposal prohibited (33 CFR 151.67).
Dunnage, lining and packing materials that float.	Disposal prohibited less than 25 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Paper, rags, glass, metal bottles, crockery and similar refuse.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Paper, rags, glass, etc. comminuted or ground.[1]	Disposal prohibited less than 3 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Victual waste not comminuted or ground.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited less than 12 miles from nearest land.	Disposal prohibited.
Victual waste comminuted or ground.[1]	Disposal prohibited less than 3 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited less than 12 miles from nearest land.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S. See Note 4.
Mixed garbage types.[4]	See Note 4.	See Note 4.	See Note 4.

Note 1: Comminuted or ground garbage must be able to pass through a screen with a mesh size no larger than 25 mm. (inch) (33 CFR 151.75)

Note 2: Special areas under Annex V are the Mediterranean, Baltic, Black, Red, and North Seas areas and the Gulfs area. (33 CFR 151.53)

Note 3: Fixed or floating platforms and associated vessels includes all fixed or floating platforms engaged in exploration, exploitation or associated offshore processing of seabed mineral resources, and all ships within 500m of such platforms.

Note 4: When garbage is mixed with other harmful substances having different disposal or discharge requirements, the more stringent disposal restrictions shall apply.

CHAPTER 8 – MEDICAL WASTE

A. LEGISLATION.

1. U.S. Public Vessel Medical Waste Anti-Dumping Act. Prohibits public vessel dumping of medical waste into ocean waters during peacetime, except under emergency conditions.

B. TERMS AND DEFINITIONS.

1. Medical Waste**.** Medical waste is any waste generated during patient diagnosis, treatment or immunization. Medical waste is of two categories, infectious waste and noninfectious waste:

    a. Infectious Medical Waste**.** Infectious medical waste is liquid or solid waste that contains pathogens in sufficient numbers and with sufficient virulence to cause infectious disease in susceptible hosts exposed to the waste. Specific examples of infectious wastes are provided in Chapter 13, Section J of the Medical Manual, COMDTINST M6000.1 (series).

    b. Non-infectious Medical Waste**.** Non-infectious medical waste includes disposable medical supplies and materials that do not fall into the category of infectious medical waste. Specific examples of non-infectious medical wastes are provided in Chapter 13, Section J of the Medical Manual, COMDTINST M6000.1 (series).

C. COAST GUARD POLICY.

1. Vessels shall steam sterilize and/or suitably package and store infectious medical waste for ultimate disposal ashore.

2. Chapter 13, Section J of the Medical Manual, COMDTINST M6000.1 (series) governs vessel labeling, handling and storage of potentially infectious medical waste.

3. After steam sterilizing, vessels properly equipped may incinerate infectious paper and cloth-based medical waste.

4. Vessels shall not incinerate plastic and wet materials.

5. Vessels shall collect sharps in plastic autoclavable sharps containers. They shall never recap, clip, cut, bend or otherwise mutilate needles or syringes in an effort to avoid causing accidental puncture wounds in infectious aerosols. Vessels shall retain all sharps on board for proper disposal ashore. They shall dispose of unused sharps ashore in the same manner as medical waste.

6. Vessels may dispose of non-infectious waste as garbage, not requiring steam sterilizing or special handling. Vessels shall process and dispose of this material in the same method as prescribed for similar material in Chapter 7.

7. Vessels shall establish a system of tracking storage and disposal of infectious medical waste as required by Chapter 13, Section J of the Medical Manual, COMDTINST M6000.1 (series).

8. If retention of potentially infectious wastes would threaten the health or safety of personnel on board, create an unacceptable nuisance condition or compromise operational readiness, overboard discharge (excluding sharps) is authorized (using the methods prescribed for similar material in Chapter 7) beyond 50 NM provided such waste has been steam sterilized and packaged for negative buoyancy. Vessels shall record in the Unit Log the overboard discharge of infectious medical wastes.

D. <u>TRAINING.</u> All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 9 – OIL AND HAZARDOUS SUBSTANCE SPILLS

A. LEGISLATION.

1. MARPOL. See Chapter 5 Oil and Oily waste for MARPOL requirements.

2. The Act to Prevent Pollution from Ships (APPS). See Chapter 5 Oil and Oily waste for APPS requirements.

3. The Clean Water Act (CWA). See Chapter 5 Oil and Oily Waste for CWA requirements.

4. The Resource Conservation and Recovery Act (RCRA). RCRA regulates generation, treatment, storage and disposal of hazardous waste. RCRA provides that Hazardous Waste generated on public vessels is not subject to storage, manifest, inspection or record keeping requirements until the ship transfers such waste ashore or transfers it to another public vessel within the territorial waters of the U.S. and then only after that vessel stores it aboard for more than 90 days after the date of transfer.

5. The Toxic Substances Control Act (TSCA). Through TSCA, Federal restrictions govern the manufacture, use, labeling and disposal of polychlorinated biphenyls (PCBs), asbestos and asbestos-containing waste.

6. Superfund Amendments and Reauthorization Act (SARA). SARA requires notification of release of specific amounts of hazardous substances to Federal, State, and Local emergency response and/or coordinating agencies. Reporting is required even if emergency response is not possible or required. Failure to report may be a criminal violation.

7. Occupational Safety and Health Act. The Occupational Safety and Health Administration establishes regulations under Occupational Safety and Health Act. The regulations control the handling and use of hazardous materials, as well as information that must be provided to workers who come into contact with the materials. The Material Safety Data Sheet (MSDS) is the document that is used to supply information regarding use and exposure.

8. DOT Law (45 C.F.R. 100-185). The Department of Transportation regulates the packaging, handling, and transportation of hazardous material under 45 C.F.R. 100-185. This includes materials that are ordered for delivery and transported from the ship on a common carrier.

B. TERMS AND DEFINITIONS.

1. Spill**.** An accidental or un-permitted discharge of regulated material into or upon the water. Any quantity that may cause detectable harm or causes a sheen on the water is a reportable spill. In this chapter, the definition does not apply to spills on board ship that do not go into the water.

2. Bulk Quantities. Bulk quantities consist of non-containerized liquids. That is a 55-gallon drum is not a bulk quantity. However, 40 gallons of bilge water pumped through a pipe or hose with non permanent connections, is a bulk quantity.

3. Environmentally Significant Spill. A spill or release to the environment that may result in harm of numerous species, harm of any number of special status species, adverse public reaction, or geopolitical implications.

4. Special Status Species. A special status species is any one that is endangered, threatened, or of significant public local, or wide-spread interest.

5. Facility Response Plan**.** A requirement of 40 C.F.R. 112 and a requirement for bulk transfers of oil as defined by OPA 90 between vessels with a total capacity of 10,500 gallons oil (including bilge capacity) or more.

C. COAST GUARD POLICY.

1. Ship Spill Response Capability. For spills into the water, ship's personnel shall initiate immediate actions to mitigate the effects of the spill. These actions shall be within the limits of regulations and within the scope of personnel safety.

   a. Solvents and other industrial wastes shall not be piped to MSDs or dumped down sinks or deck drains. Note that some classes of cutters have sinks that discharge directly overboard. Operational controls, such as prominent signage, shall be used to prevent inadvertent spills.

   b. Whenever possible, cutters shall deploy a full containment boom prior to transferring bulk quantities of hydrocarbon, hydrocarbon-containing water, regulated liquids, or natural oils from the vessel to a shore container or vehicle ashore.

   c. A recommended list of spill response items to be carried onboard is included as Appendix D.

2. Oil and Hazardous Substance (OHS) Spill Response Within the U.S. Contiguous Zone. Vessels shall comply with the following OHS spill response procedures when within the U.S. contiguous zone:

   a. Insofar as practical take immediate actions to mitigate the effects of the spill.

   b. As soon as safely practical, notify the following:

      (1) OPCON with information copies to CG-45, CG-0942, and CG-0922.

      (2) National Response Center (NRC): telephone (800) 424-8802.

(3) Nearest Captain of the Port (COTP)

(4) Appropriate state or territorial response agency unless NRC or COTP will contact them.

3. OHS Spill Response in Waters of Foreign Countries. Vessels shall take the following action for an OHS spill in these waters:

   a. Insofar as practical take immediate action to mitigate the effects of the spill.

   b. As soon as safely practical, notify the following:

      (1) The appropriate agency or authority as designated in the LOGREQ reply or servicing Port Agent.

      (2) OPCON with information copies to CG-45, CG-0942, and CG-0922.

4. OHS Spill Response in International Waters. Vessels shall take the following action for an OHS spill in international waters:

   a. Insofar as practical take immediate action to mitigate the effects of the spill.

   b. As soon as safely practical, notify the following:

      (1) OPCON with information copies to CG-45, CG-0942, and CG-0922.

      (2) National Response Center (NRC) by telephone at (800) 424-8802.

5. Environmentally Significant Spills. For spills anywhere resulting from catastrophic events, causing significant adverse public reaction, having geopolitical implications or for other causes warranting critical incident reports per COMDTINST 3100.8 (series), Critical Incident Communications. Vessels shall make the initial report by the Critical Incident Communications system.

   a. As soon as safely practical, notify OPCON with information copies to CG-45, CG-0942, and CG-0922.

   b. Complete a Pollution Report (POLREP) within 24 hours.

6. Response Plans**.** All cutters shall develop and maintain a Cutter Oil Pollution Emergency Plan. This plan shall meet all the specific requirements of 33 C.F.R. § 151.26. To ensure your plan meets this requirement, contact CG-453. Cutters shall verify that fueling facilities or contractors have an appropriately approved Facility Response Plan.

7. Pollution Incident Evaluation System. The Chief, Office of Naval Engineering (CG-45) is the program manager for environmental risk management, and is responsible for convening Environmental Incident Analysis Boards (EIAB) when warranted, and managing the analysis process.

   a. Environmental Incident Analysis Boards. (EIABs) will be appointed and convened at the discretion of CG-45 to investigate and report on Environmentally Significant Spills. In cases where a Commandant-level review of command policies, training procedures or equipment deficiencies are not anticipated, CG-45 may delegate this responsibility. In these cases, CG-45 will specify the scope and requirements of any unit investigations. These boards vary in composition according to the circumstances of the incident. Commandant (CG-01) may designate additional attendees as deemed necessary.

   b. Commandant's Environmental Incident Review Board (EIRB). Once the Environmental Incident Analysis Report (EIAR) reaches Headquarters, an EIRB shall be convened. The EIRB shall review the EIAB report and endorsing comments and develop a report for CG-01. This report shall include:

      (1) A synopsis of the incident

      (2) Classification and cost of the incident

      (3) Determination of the causal factors

      (4) Determination of additional findings

      (5) Determination of recommended corrective actions

      (6) Other remarks as appropriate

      (7) Information for the final update of the Coast Guard Environmental Incident Evaluation Database

      (8) Development of a draft CG-01 Decision Letter and Final Action Message

   c. Within 90 days of receipt of the EIAB report and comments, the EIRB shall forward the report and draft Final Decision Letter to CG-01 for consideration. After review, CG-01 will issue a Final Decision Letter directing the corrective actions to be taken.

   d. Upon approval of the Final Decision Letter, CG-01 will notify the Commandant prior to releasing the investigative results. As warranted, the Commandant will be briefed in the following types of incidents:

(1) Significant harm to the environment

(2) Alleged wrongdoing of Coast Guard members

(3) Equipment or configuration deficiencies

e. Attendance at this brief, which will be determined by CG-01, will vary by incident type and may include CG-37RCU, CG-37RCB, CG-0942, CG-45, the applicable Assistant Commandant(s) responsible for unit/program involved, and the Area/District Commander.

f. The purpose of this brief, which normally will be given by the President of the appropriate EIRB within two weeks following approval of the Final Decision Letter, is to ensure appropriate staff elements are aware of the pending release of the findings and that required staff actions have been initiated. Likely staff actions could include preparation of a press release and draft media guidance CG-0922, scheduling the notification of media, development of Congressional outreach strategy CG-0922, and preparation of a draft Secretary Alert CG-0922, CG-45, CG-0942.

g. Attendees shall bring drafts of any correspondence, notifications, or press releases that are anticipated to the brief. Commandant (CG-45) will provide each attendee a copy of the approved Final Decision Letter and draft Final Action Message. After all required staff actions have been completed, Commandant (CG-01) will release the Final Action Message.

8. Controllable Pitch Propellers (CPP) and bow thrusters. CPP or bow thruster leaks causing a sheen shall be considered a reportable spill and shall be reported per paragraphs 9.C.1 through 9.C.5. The Operational Commander, in concert with the cognizant MLC, will determine whether the leak must be repaired immediately or if it can be managed until the next repair availability. The initial CASREP and NRC notification shall contain an estimated leakage rate. All those initially notified, including NRC, shall be updated if the situation changes or the leakage rate increases.

D. TRAINING. All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

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CHAPTER 10 – SHIP BALLAST WATER AND ANCHOR SYSTEM SEDIMENT CONTROL

A. LEGISLATION.

1. National Invasive Species Act of 1996 (NISA) reauthorized and amended the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (codified at 16 U.S.C. § 4711). NISA required the Coast Guard to establish national voluntary ballast water management guidelines. These guidelines were deemed inadequate after an appropriate study and were converted to mandatory regulations. The regulations related to Ballast Water management on the Great Lakes and other waters of the Unites States are found in 33 C.F.R. Chapter I, Subchapter O. Some species if taken up with ballast water and transferred to a different location or ecosystem could cause damage or be harmful to the ecosystem.

2. The Act to Prevent Pollution from Ships (APPS), 33 U.S.C. § 1901, *et. seq.*. APPS implements the stringent oil and oily waste discharge requirements of Annex I of MARPOL. Although public vessels are not strictly subject to MARPOL Annex I or APPS, the Act requires heads of Federal departments to prescribe standards for ships under their authority that are consistent with those of the MARPOL Protocol "so far as it is reasonable and practicable without impairing the operations or operational capabilities of such ships." This instruction serves as that direction.

3. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of oil in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ. U.S. EPA regulation provides that a discharge of oil in a harmful quantity is one that violates applicable water quality standards or causes a sheen on the water. The oil content within a discharge that is sufficient to cause a sheen varies with type of oil, sea state, lighting, and viewing angle. In general, in excess of 15 ppm of oil may be sufficient to cause a sheen.

B. TERMS AND DEFINITIONS.

1. Oily Mixture. As defined in 33 C.F.R. 151.05, a mixture, in any form, with any oil content. ‘‘Oily mixture’’ includes, but is not limited to—

   a. Slops from bilges;

   b. Oil residue; and

   c. Oily ballast water from fuel oil tanks.

2. Segregated Ballast. The ballast water introduced into a tank that is completely separated from the cargo oil and fuel oil system and that is permanently allocated to the carriage of

ballast or to the carriage of ballast or cargoes other than oil or noxious substances as variously defined in the Annexes of MARPOL 73/78.

C. COAST GUARD POLICY

1. All cutters with ballasting capability shall do so in accordance with their Damage Control Books.

2. Vessels that ballast their fuel tanks (not segregated ballast tanks) should treat the ballast water taken aboard as an "oily mixture". See paragraph 10.C.5 below for de-ballasting procedures.

3. Ballasting. Ballasting and de-ballasting shall be conducted in a manner to minimize the introduction of non-native species and reduce their impact. Vessels shall control all ballasting and de-ballasting evolutions as indicated below:

   a. Record in the Machinery Log each transfer of ballast water noting ships location, water depth, tanks involved, and amount of ballast taken aboard or discharged.

   b. Avoid, to the maximum extent possible, taking on ballast water under the following conditions:

      (1) Areas known to have infestations or populations of harmful organisms or pathogens (e.g. toxic algal blooms).

      (2) Areas near sewage outfalls.

      (3) Areas near dredging operations.

      (4) Areas where tidal flushing is known to be poor or at times when tidal flow is known to be more turbid.

      (5) In darkness when bottom-dwelling organisms may rise up in the water column.

      (6) Areas where propellers may stir up the sediment.

      NOTE: Ballast water exchange is not required during local operations or when reentering within 12 NM in the same locale as the ballast water was initially loaded.

4. Vessels with segregated ballast tanks. Vessels constructed with segregated ballast tanks shall adhere to the following requirements:

   a. Ballast water that was taken on board from a location more than 200 NM from any shore AND in water of a depth greater than 200 meters may discharge that water without restriction whether in foreign or domestic port or while underway.

b. Ballasting and/or de-ballasting within 12 NM from land shall be avoided. Ballast water taken on within 200 NM from any shore, OR in water less than 200 meters deep shall be managed in accordance with your DC Book and the options below:

(1) Exchange ballast water in an area greater than 200 NM from any shore and in water more than 200 meters deep with an efficiency of 95% or more of the original volume. Do not exchange ballast in ballasted fuel tanks.

(2) If unable to meet (1), then exchange ballast water in area greater than 200 NM from any shore and in water more than 200 meters deep passing two complete tank volumes through. Do not exchange ballast in ballasted fuel tanks.

(3) If unable to meet (2), then exchange ballast water in area greater than 200 NM from any shore passing two complete tank volumes through. Do not exchange ballast in ballasted fuel tanks.

(4) If unable to meet (3) then retain ballast water as long as safely practicable or conduct flushing as far from shore as possible.

(5) If unable to meet (4) then discharge ballast water to an approved receiving facility. Vessel safety and the absence of other options are the only considerations that may be applied to using this discharge alternative.

c. When it is not practicable to be more than 200 NM from land, the minimum distance shall be not less than 12 NM from land.

5. Vessels without segregated ballast tanks. Vessels that ballast fuel tanks shall meet all of the requirements listed above in Section 10.C.3. In addition, and to the maximum extent practicable, these vessels shall de-ballast fuel tanks using their OWS equipped with a functioning, calibrated oil content meter (OCM). If unable to use the OWS/OCM combination due to operational necessity or concerns for safety of the vessel these vessels shall, when practicable, only de-ballast during daylight hours, outside 50 nm from land, using an OCM to monitor the discharge (if installed), and with a watchstander posted topside to detect a sheen. If the system is not automatically configured to do so, a watch shall be posted to stop the system before the oil concentration reaches 15 ppm as indicated by the OCM (if installed) or as detected by the topside watchstander. In an emergency, de-ballasting shall be accomplished using high-volume discharge piping and applying the conditions listed above as practicable. In addition to the recording requirements of 10.C.3.a, a duplicate entry shall be made in the machinery and unit logs that records the basis for the determination of operational necessity. Inside of 3 nm, de-ballasting shall only be accomplished using the OWS/OCM combination except when doing so would hazard the vessel or unduly restrict saving of life at sea.

6. Anchor System Sediment Control. Vessels shall routinely wash down anchors, anchor chains, and appendages with seawater when retrieving them to prevent on board collection of sediment, mud and silt. Wherever possible following anchor retrieval,

surface ships shall also wash down chain lockers outside 12 NM from land to flush out sediment, mud or silt.

7. Hull Fouling. Vessels shall regularly clean their hulls and dispose of any removed substances in accordance with Federal, state, and local regulations to prevent on board collection and transfer of sediment, mud, silt, and fouling organisms from one location to another.

8. Ballast Water Management Plan. All vessels capable of conducting ballast operations shall develop and maintain a vessel-specific ballast water management plan that allows those responsible for the plan's implementation to understand and follow the vessel's ballast water management strategy.

D. **TRAINING.** All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

CHAPTER 11 – PROTECTION OF MARINE WILDLIFE

A. LEGISLATION

1. Marine Mammal Protection Act. Marine Mammal Protection Act of 1972, as amended (16 U.S.C. § 1361 et seq.) protects marine mammals by prohibiting unauthorized "taking" of marine mammals in the U.S. or on the high seas.

2. 50 C.F.R 222-224. Endangered and Threatened Marine Species.

3. 50 C.F.R. 226. Critical Habitat.

B. TERMS AND DEFINITIONS.

1. Marine Mammal. Any ocean dwelling mammal, including sea otters, manatees, dugongs, sea cows, seals, walruses, whales, dolphins and porpoises or ones that primarily inhabit the marine environment (such as polar bears).

2. Taking. To harass, hunt, capture or kill or attempt to harass, hunt, capture or kill any marine mammal.

C. COAST GUARD POLICY.

1. Marine Mammal Protection. Marine mammals enjoy protection under the Marine Mammal Protection Act. Therefore, no Coast Guard vessel shall deliberately harass a marine mammal. Commanding Officers and Officers in Charge shall plan and act to protect marine mammals during operations and planning.

NOTE

Additional information concerning the local and seasonal occurrence of marine mammals can be found in u.s. coast pilots

2. Bird Protection. Extra precautions shall be taken to avoid and avoid disturbing large colonies of sea birds for their protection and to reduce the risk of disease transmission to the ship's crew. Taking or possessing any migrating bird is prohibited unless under a US Fish and Wildlife Service permit.

3. Reef Protection. When in any area where reefs are present, do not

   a. Anchor where coral is visible.

   b. Alter the seabed in any way.

   c. Discharge any material that might injure the habitat or organisms.

Discharges incidental to the normal operation of the vessel are excluded from this requirement.

4. Whale Avoidance.

   a. In areas of known whale migration routes (e.g. southeast Alaska) or high animal density (e.g. San Juan Islands area) be aware of local conditions, be especially alert for activity, and proceed with caution.

   b. Do not approach whales head on during non-emergency maneuvering. Avoid Right Whales by 500 yards and all other species by 100 yards, except when assisting in an animal rescue effort or enforcing the Endangered Species Act.

   c. Specific areas to be cognizant of whales include:

      (1) West Coast

         (a) All coastal waters: Fin whales

         (b) Deep water: Sperm whales

         (c) Arctic waters: Bowhead whale.

         (d) Bering Sea and Bristol Bay: North Pacific Right Whale

         (e) Near shore Alaska and California: Grey whale

         (f) Inshore Washington State and British Columbia: Orca

         (g) Near Maui, Hawaii: humpback breeding ground

      (2) East Coast

         (a) Cape Cod Bay, Massachusetts Bay and the Great South Channel east of Massachusetts: Northern Right Whale

         (b) 90 miles along the Atlantic seaboard in Florida and Georgia: Northern Right Whale

         NOTE: Refer to Coast Pilots for most current information.

5. Whale Strike Reporting. Vessels shall document and report any vessel-mammal strikes or entanglement observed. Immediately notify OPCON and follow up with a strike or entanglement report (example below):

   PRIORITY
   FM: [REPORTING SHIP]
   TO: OPCON
   INFO: TACON, MLC(v), MLC(L), AREA, CG-37RCU, CG-453, CG-0922
   UNCLAS//N05090//
   SUBJ/WHALE STRIKE/ENTANGLEMENT REPORT//
   1. WHALE STRIKE DETAILS
   A. DATE, TIME, AND LOCATION
   B. VESSEL'S COURSE AND SPEED
   C. OPERATIONS BEING CONDUCTED BY THE SHIP
   D. WEATHER CONDITIONS, VISIBILITY AND SEA STATE
   E. DESCRIBE THE WHALE IN AS MUCH DETAIL AS POSSIBLE; E.G., LENGTH, COLOR, OTHER DISTINGUISHING FEATURES
   F. NARRATIVE OF INCIDENT, INCLUDING RELATIVE POSITION AND MOVEMENTS OF SHIP AND WHALE
   G. INDICATE IF PICTURES/VIDEOS WERE TAKEN.

D. TRAINING. All training will be incorporated into future revisions of the Cutter Training and Qualification Manual, COMDTINST M3502.4H.

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CHAPTER 12 – NOISE

A. LEGISLATION.:

1. Noise Control Act. The Noise Control Act provides for Federal performance standards, which the Coast Guard must incorporate into the design of new ship systems and equipment to reduce noise emission. There are currently no explicit guidelines or regulations in place in the United States or any other nation governing noise produced as a byproduct of vessel operation. Retrofit modifications are not prescribed for existing noise sources. Military aircraft, combat equipment and weapon systems are exempt from new product design standards. Workplace noise is not environmental noise. Workplace noise abatement is addressed in Chapter 4, Section D.3 of COMDTINST M5100.47 (series), The Safety and Environmental Health Manual.

B. COAST GUARD POLICY.

1. The use of powered tools, machinery, outboard loudspeakers or any other devices that emit excessive noise, either directly or indirectly through re-radiation, shall be restricted to normal daylight working hours to the maximum possible extent.

2. Most (83%) of the acoustic field surrounding large vessels is the result of propeller cavitation (when air spaces created by the motion of propellers collapse). When ships cavitate, relatively little acoustic energy is transmitted into the water from on-board machinery or movement of the vessel through the water. Given that acoustic energy radiated into water by transiting ships represents wasted energy that could be used to more efficiently propel the ship, making modifications may have the dual benefit of reducing radiated noise and reducing vessel operating costs. Further, vessels fitted for reduced radiation of underwater sound also tend to be quieter onboard, which is desirable for the crew. Optimal quieting is achieved when this goal is incorporated into the design of vessels and strictly adhered to during construction.

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CHAPTER 13 – SHIP AND BOAT WASHES

A. LEGISLATION

1. The Clean Water Act (CWA)(generally codified among other amendments at 33 U.S.C. §§ 1251-1387). The CWA prohibits the discharge of oil in a harmful quantity into all waters within 12 NM of the U.S. coast, or in a quantity which may effect the natural resources of the U.S. in the EEZ.

2. The Act to Prevent Pollution from Ships (APPS). APPS implements the stringent oil and oily waste discharge requirements of Annex I of MARPOL. Although public vessels are not strictly subject to MARPOL Annex I, the Act requires heads of Federal departments to prescribe standards for ships under their authority that are consistent with those of the MARPOL Protocol "so far as it is reasonable and practicable without impairing the operations or operational capabilities of such ships." This instruction serves as that direction.

B. COAST GUARD POLICY

1. General. Ship and boat washes are of concern not only from the detergent or other cleaners that will end up in the water, but from the oils, greases, paint chips, paper wrappers, etc. that may end up there as well. Commanding officers and officers in charge need to be especially cognizant of state and local regulations for this effluent. The following management practices shall be implemented Coast Guard-wide:

    a. Before a wash down occurs, a complete dry cleanup shall occur utilizing tools such as brooms, dust pans, and vacuums. What is collected shall be disposed of using the appropriate dry waste stream procedure. Specific care should be taken to remove grease, oils spots, loose paint and the like. Whenever possible, cutter wash-downs shall occur 3 NM or further from shore. If trailerable, unit commanders are encouraged to trailer their boats to wash down facilities. All wash downs shall only use cleaners authorized for use aboard Coast Guard vessels, see Navy instruction NAVSEA S6480-A4-CAT-010 "Authorized chemical cleaning products & dispensing systems catalog".

    b. If a vessel must be washed in port, follow the guidelines below:

        (1) Use only low pressure (<100 psi) fresh water, with no soap, except as below. Do not use hot water (140^{o}F or higher).

        (2) Soap or a cleaner may be used ONLY with a rag or sponge and wipe any spots dry with a rag or sponge before rinsing.

    c. If a sheen results from the wash down, follow the reporting procedures of Chapter 9 of this manual.

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APPENDIX A. COMMANDANT'S ENVIRONMENTAL STEWARDSHIP COMMITMENT

THE COMMANDANT OF THE UNITED STATES COAST GUARD
WASHINGTON, D.C. 20593-0001

MAR 0 2 2007

The Commandant's Environmental Stewardship Commitment

The United States Coast Guard is recognized as America's Maritime Guardian. We have long been charged with enforcing the laws and regulations that protect our country's marine environment, responding to vessel pollution, and restoring waterways following a disaster. As Environmental Stewards, we make a commitment to the American public and to future generations, not only to protect the environment, but also to demonstrate these values in our organization.

To maintain the public's trust, the Coast Guard will incorporate environmental best practices in all we do. We will

Develop an organizational capability to disseminate best practices, reduce environmental liabilities, and help all units achieve and maintain environmental compliance;

Undertake the *Federal Electronics Challenge* for recycling computers and other electronics;

Increase the use of biofuels in our vehicle fleet by 15% over each of the next four years;

Utilize sustainable design principles so that 25% of new construction projects will meet Leadership in Energy and Environmental Design (LEED) standards by the end of my watch;

Fully implement Environmental Management Systems (EMS) at major Coast Guard industrial units by the end of my watch.

I challenge all Coast Guard units to improve the environment, and to reduce our environmental footprint. Do your part, wherever you are within the organization, to make environmental stewardship a Coast Guard core competency.

Semper Paratus,

T.W. ALLEN
Admiral, U.S. Coast Guard

APPENDIX B. AFLOAT ENVIRONMENTAL COMPLIANCE CHECKLIST

This checklist has been developed to assist in the evaluation of environmental compliance and stewardship onboard Coast Guard vessels. Units shall use this checklist to conduct periodic self evaluations. Indicate by an **X,** the answer to each of the questions below. If the question is not applicable, mark "NA" under the "yes" column. Provide an explanation or description of the conditions warranting any "NO" answer and if necessary, propose corrective actions.

Date of this evaluation _____ Date of last evaluation _____

	YES	NO
General		
1. Have any external inspectors been granted access to the ship for an inspection related to environmental issues since the last environmental compliance inspection? If yes, have reports or correspondence relating to the inspection/survey been retained? External inspectors include representatives from Customs, American Bureau of Shipping (ABS), etc. Reference: COMDTINST M16455.1 (series), Chapter 2.B.3		
a. Did the external inspectors present appropriate credentials?		
b. If the inspectors expressed an interest in liquid discharges (other than in MSD or OWS effluent) from the ship, has the port engineer and MLC environmental staff been informed of that interest?		
c. If a "Notice of Violation," or other official discrepancy was issued by the inspectors, were the port engineer and MLC environmental staff notified?		
d. Has the "Notice of Violation," or other official discrepancy been corrected?		
2. Have requests for environmental inspections by representatives of a foreign country been refused and proper notifications made? Reference: COMDTINST M16455.1 (series), Chapter 2.B.3		
3. Has the ship completed an annual environmental program self-evaluation for compliance of procedures, practices and training (recommended but not required)? Reference: COMDTINST M16455.1 (series), Chapter 2.B.3.e, Appendix A		
a. Was this checklist used to assist in the performance of this evaluation?		
b. Were any discrepancies noted?		
c. Have all discrepancies been corrected? If not, what steps are being taken to correct the discrepancies?		
4. When operating in foreign territorial waters or when visiting foreign ports, does the ship abide by environmental provisions contained in port visit clearances and/or in Status of Forces Agreements (SOFA)? Reference: COMDTINST M16455.1 (series), Chapter 2.B.5		
5. Is the Commandant's Environmental Stewardship Commitment prominently displayed on the bridge and in the engineering control room of cutters? Reference: COMDTINST M16455.1 (series), Chapter 2		
Afloat Environmental Program Coordinator (AEPC)		
1. Has the Commanding Officer appointed an AEPC? Reference: COMDTINST M16455.1 (series), Chapter 2.B.7		
a. Does this person have the requisite knowledge to perform their assigned duties? Reference: COMDTINST M16455.1 (series), Chapter 2.B.7		
b. Is the individual advising the Command on environmental issues as necessary? Reference: COMDTINST M16455.1 (series), Chapter 2.B.7		

Pollution Prevention Training Afloat		
1. Have all crewmembers presently onboard, received general and command-specific environmental awareness training commensurate with the member's position in the command to ensure that they fully understand the Environmental Stewardship and Protection responsibilities of the Coast Guard, as well as their roles in the proper execution of those responsibilities? Reference: COMDTINST M16455.1 (series), Chapter 2.C		
a. Is environmental training for the crew being held upon reporting aboard and annually thereafter?		
2. Does all hands environmental training include: Reference: COMDTINST M16455.1 (series), Chapter 2.C		
a. The Commandant's Environmental Stewardship Commitment?		
b. The CG environmental program, including pollution prevention, solid waste handling and minimization, plastics management, recycling, air pollution (including ozone depleting substances (ODSs)), and oil and hazardous substance spill response?		
c. The crewmember's responsibility with regard to this program?		
3. Are personnel who operate or maintain sewage and graywater disposal or transfer equipment trained on the proper procedures for sewage and graywater disposal, including hookup and transfer of sewage or graywater to shore facilities and at-sea discharge restrictions? Reference: COMDTINST M16455.1 (series), Chapter 3.C		
4. Are personnel whose watch or task duties may result in air pollution (e.g., engineering watchstanders, users of volatile solvents) trained on the proper use of material and operations to minimize the release of pollutants? Reference: COMDTINST M16455.1 (series), Chapter 4.D		
5. Have the AC&R technicians who perform maintenance on air conditioning and refrigeration equipment received proper certification on handling, recovery and recycling ozone depleting substances (ODS)? Reference: COMDTINST M16455.1 (series), Chapter 4.D		
6. Are personnel who operate or maintain waste oil and oily water holding, processing, disposal or transfer equipment trained on the proper procedures for oily waste disposal, including hookup and transfer of waste oil and oily waste to shore facilities and at sea discharge restrictions? Reference: COMDTINST M16455.1 (series), Chapter 5.D		
7. Are personnel who handle, store and dispose of HM trained on proper procedures? References: Hazardous Waste Management Manual, COMDTINST M16478.1 (series), Chapter 10 COMDTINST M16455.1 (series), Chapter 6.D		
8. Are personnel responsible for handling ship's garbage trained on the discharge restrictions applicable to the waste category? Reference: COMDTINST M16455.1 (series), Chapter 7.D		
Sewage/Graywater		
1. Is the Marine Sanitation Device (MSD) in proper working order? Reference: COMDTINST M16455.1 (series), Chapter 3.B		
2. Does MSD space contain warning placards and operational procedures indicating: References: NSTM 593, Pollution Control COMDTINST M16455.1 (series), Chapter 2.B.3		
a. Spill and leak cleanup procedures?		
b. Personnel cleanup procedures?		
c. Prohibition on smoking, drinking and eating in space?		
d. Presence of toxic or flammable fumes in the tank? (For Type III MSD/ CHT)		

3. Are instructions posted to ensure personnel properly operate MSDs to prevent the overboard discharge of untreated or inadequately treated sewage or any waste derived from sewage within 0-3 nm of the U.S. shore? Reference: COMDTINST M16455.1 (series), Chapter 3.B		
4. Has the vessel been required to discharge sewage overboard within 3 nautical miles of shore, and if so: Reference: COMDTINST M16455.1 (series), Chapter 3.B, Table 3-1		
a. Was the vessels transit time within 0-3 NM of shore of such duration that the sewage holding capacity was exceeded?		
b. Was the vessel conducting or participating in military operations, exercises, and training?		
c. Were periods in which the vessel has been required to discharge sewage overboard within 3 NM of shore held to an absolute minimum?		
5. Does the vessel ensure that used solvents or other industrial wastes are not piped to MSDs or dumped down sinks or deck drains? (Used solvents and industrial wastes shall be packaged for disposal ashore.) Reference: COMDTINST M16455.1 (series), Chapter 3.B.1.e		
Air Pollution		
1. Is the ship implementing operations and maintenance procedures to comply with Chapter 4 of the Vessel Environmental Manual, COMDTINST M16455.1 (series) regarding limiting the opacity of exhausts?		
2. Does the ship minimize operation of boilers and diesel engines by using shore services whenever operational requirements permit? Reference: COMDTINST M16455.1 (series), Chapter 4.C.2		
3. Does the ship use only approved solvents, paints, fuels, lubricants and chemicals onboard? References: Coatings and Color Manual, COMDTINST M10360.3 (series), Appendix C Hazardous Waste Management Manual, COMDTINST M16478.1 (series), Chapter 2		
Oil and Oily Waste		
1. Does the ship maintain records/history of oil consumption/loss etc? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.f		
a. Do these oil records demonstrate that the ship is compliant with oil discharge restrictions?		
2. Has the vessel reported the occurrence of a sheen or oil spill in accordance with the Unit Oil Spill Response Plan since the last evaluation? Reference: COMDTINST M16455.1 (series), Chapter 5.C		
3. Is the vessel equipped with USCG-certified Oily Water Separators (OWS) and Oil Content Monitors (OCM)? Reference: COMDTINST M16455.1 (series), Chapter 5.C.3		
a. Is the equipment in proper working order and properly calibrated?		
b. Are bilge water discharges limited to 15 ppm oil?		
4. Is Waste Oil retained onboard for shore disposal? Reference: COMDTINST M16455.1 (series), Chapter 3.C.4.b		
5. Is discharge of Oily Waste through the OWS and OCM less than 15 ppm of oil? Reference: COMDTINST M16455.1 (series), Chapter 5.A.3		
6. Is oil contamination of bilge water minimized? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.a(1)		
7. Does the ship refrain from use of emulsifying bilge cleaners? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.a(3)		
8. Are only approved cleaners being used aboard the vessel? Reference: COMDTINST M16455.1 (series), Chapter 4.C.2.c & 5.C.4.a.(3)		

9. Does the ship collect, separately store, and label used lube oils for shoreside reclamation? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.b(2)		
10. Is Lube Oil prohibited from being discharged into the bilges, oily water holding or waste oil tanks? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.b(2)		
11. Does the ship have written procedures with clearly defined responsibilities for the following oil transfer operations? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
a. Topping Off Tanks		
b. Communication between Persons Conducting Transfer		
c. Emergency Shut-Down		
d. Spill Notification		
e. Cargo Slops Disposal		
12. Are all personnel involved in oil transfer operations familiar with these procedures? Reference: COMDTINST M16455.1 (series), Chapter 5.D		
13. Is a Person in Charge designated in writing by the Commanding Officer for oil transfer and disposal? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
14. Are written and legible oil transfer procedures permanently posted or available where they can be easily seen by crewmembers when engaged in oil transfer operations? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
15. Do the procedures include all of the information required by this manual? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
16. Are fueling, defusing, internal fuel transfer, and oil offloading operations in restricted waters accomplished during normal daylight working hours, when operating schedule permits, and conducted by well trained personnel? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
17. During fueling/defueling, are topside watches maintained having a direct communication to fuel transfer pump station? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
18. During fueling/defueling, is each tank level continuously monitored while it is being filled with fuel? (Remote tank-level indicators and/or tank soundings shall be used as the primary method of obtaining tank levels.) Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
19. Prior to actual fuel transfer, do transfer personnel inform the EO/EPO, officer of the deck, and the fuel supplier that the vessel is ready to commence fueling operations? Reference: COMDTINST M16455.1 (series), Chapter 5.C.4.c		
Hazardous Material and Hazardous Waste		
1. Has the ship discharged any Hazardous Material (HM) at sea not in accordance with this manual? If so, what was the reason? Reference: COMDTINST M16455.1 (series), Chapter 6.C		
2. Has the Commanding Officer appointed in writing the Hazardous Materials Coordinator (HMC)? Reference: Hazardous Waste Management Manual, COMDTINST M16478.1 (series), Chapter 10 COMDTINST M16455.1 (series), Chapter 6.D		
a. Does this crewmember have the requisite knowledge to perform the assigned duties?		
3. Is HM being transferred to shore facilities for proper disposal? Reference: COMDTINST M16455.1 (series), Chapter 6.C.2		
4. Is the HMC required to reconcile all HM left on the pier prior to the vessel leaving port, and is the associated documentation kept on file? Reference: COMDTINST M16455.1 (series), Chapter 6.C		

5. Is labeling, handling, and storage of HM accomplished in accordance with The Hazardous Waste Management Manual, COMDTINST M16478.1 (series)?		
Solid Waste		
1. Does the vessel have a waste (garbage) management plan? Reference: COMDTINST M16455.1 (series), Chapter 7.C		
2. Are placards showing garbage disposal restrictions as required in Chapter 7 of this manual posted? Reference: COMDTINST M16455.1 (series), Table 7-1		
3. Has training been provided to crewmembers to identify the different classes of waste and allowable disposal practices? Reference: COMDTINST M16455.1 (series), Chapter 7.C		
4. Is Plastic Waste prohibited from being discharged at sea? Reference: COMDTINST M16455.1 (series), Chapter 7.C.1		
5. Are trash receptacles clearly labeled with information alerting crewmembers of the importance of segregation and what items are to be placed in each receptacle (plastic, metal, glass, etc)? Reference: COMDTINST M16455.1 (series), Chapter 7.C.4		
6. Is garbage discharge prohibited within 3 NM of any shore? Reference: COMDTINST M16455.1 (series), Table 7-1		
7. Is any discharge of plastic recorded in the vessel's unit log? Does the log entry include the date, time, and location of discharge, approximate weight and cubic volume of the discharge, and nature of the material discharged? Reference: COMDTINST M16455.1 (series), Chapter 7.C.1		
8. If equipped with an incinerator, is it used only when operating beyond 12 NM from land for the disposal of non-plastic and non-hazardous garbage only? Reference: COMDTINST M16455.1 (series), Chapter 4.C.2.b		
Medical Waste		
1. Has training been provided to the crewmembers responsible for processing and disposing of vessel medical waste? Reference: COMDTINST M16455.1 (series), Chapter 8.D		
2. Is infectious medical waste (including needles, syringes, scalpels and other sharps) packaged correctly for ashore disposal in accordance with The Medical Manual, COMDTINST M6000.1 (series)?		
3. Are sharps collected in plastic autoclavable sharps containers? (Never recap, clip, cut, bend or otherwise mutilate needles or syringes to avoid causing accidental puncture wounds and infectious aerosols). References: Medical Manual, COMDTINST M6000.1 (series), Chapter 13.J Reference: COMDTINST M16455.1 (series), Chapter 8.C		
Oil and Hazardous Substances (OHS) Spill and Reporting Procedures		
1. Does the ship have and maintain OHS spill response supplies? Reference: COMDTINST M16455.1 (series), Chapter 9.C.1.c, Appendix C		
2. Have vessel's personnel been exercised in OHS spill response procedures at least once per year? Has the vessel considered in-port watch section response as well as onboard response for this training? Reference: COMDTINST M16455.1 (series), Chapter 9.C		
3. Cutters only. Does your cutter have a Cutter Oil Pollution Emergency Plan? Reference: COMDTINST M16455.1 (series), Chapter 9.C.6.		
Ballast Water and Anchor Sediment Control Policy		
1. Does the ship routinely perform washdowns of the anchor and chain, ensuring anchors, chains, and appendages are thoroughly washed down with seawater when being retrieved to prevent onboard collection of sediment, mud and silt? Reference: COMDTINST M16455.1 (series), Chapter 10.B.4		
2. Are chain lockers washed down outside of 12 miles from land to flush out sediment, mud and silt? Reference: COMDTINST M16455.1 (series), Chapter 10.C.6		

3. When loading ballast water, is water offloaded outside of 12 miles from shore? Is clean seawater taken on and discharged two times prior to entry within 12 miles of shore? Reference: COMDTINST M16455.1 (series), Chapter 10.B.1		
4. Is the loading and flushing of the tanks entered into the ship's unit log? Reference: COMDTINST M16455.1 (series), Chapter 10.B.1.a		
5. Do the log entries include the geographical position and the amount of ballast water taken on? Reference: COMDTINST M16455.1 (series), Chapter 10.B.1		
Marine Mammal Protection Policy		
1. Are all personnel aware that marine mammals are protected from unpermitted "taking" under the Marine Mammal Act? Reference: COMDTINST M16455.1 (series), Chapter 11.C.1		
2. Is the protection of marine wildlife taken into consideration during operations and planning? Reference: COMDTINST M16455.1 (series), Chapter 11.C.1		
3. Has there been any marine wildlife related incident since the last evaluation? Was it reported properly? Reference: COMDTINST M16455.1 (series), Chapter 11.C.4		
Noise Policy		
1. Does the ship restrict excessive noise to the maximum extent possible to normal daylight hours? Reference: COMDTINST M16455.1 (series), Chapter 12.B		
Ozone Depleting Substances (ODS)		
1. Does the ship record consumption data whenever refrigerant is added? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4		
2. Does the ship keep maintenance records on AC&R systems repairs and include the following information: Reference: COMDTINST M16455.1 (series), Chapter 4.C.4		
a. Technician(s) Performing Work,		
b. Pounds of refrigerant removed, and		
c. Pounds of refrigerant added?		
3. Does the ship maintain annual records on the equipment leakage rates for 3 years? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4.a(4)		
4. Does the ship procure mission critical ODS from the ODS Reserve (Stockpile)? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4.b		
a. Does the ship obtain an ODS Procurement Approval (Waiver) for the open purchase of ODS?		
5. Does the ship record consumption and leakage rates of ODS? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4.a		
a. Does the ship maintain an annual leakage rate of not more than 15 percent of total installed refrigerant charge of air conditioning equipment?		
b. Does the ship maintain an annual leakage rate of not more than 35 percent of total installed refrigerant charge of ship stores and cargo refrigeration?		
6. Does the ship have a policy of replacing small refrigeration equipment (ice makers, coolers, etc.) when it no longer functions properly? Replacement equipment must use an alternative refrigerant. Reference: COMDTINST M16455.1 (series), Chapter 4.C.4		
7. Is the ship equipped with a refrigerant recovery unit? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4		
8. Has the vessel converted to HFC-134A or a technically acceptable alternative? Reference: COMDTINST M16455.1 (series), Chapter 4.C.4		

REMARKS:		

APPENDIX C: EPA REGIONAL OFFICES

Region 1 (CT, MA, ME, NH, RI, VT)
Environmental Protection Agency
1 Congress St. Suite 1100
Boston, MA 02114-2023
http://www.epa.gov/region01/
Phone: (617) 918-1111
Fax: (617) 918-1809
Toll free within Region 1: (888) 372-7341

Region 2 (NJ, NY, PR, VI)
Environmental Protection Agency
290 Broadway
New York, NY 10007-1866
http://www.epa.gov/region02/
Phone: (212) 637-3000
Fax: (212) 637-3526

Region 3 (DC, DE, MD, PA, VA, WV)
Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029
http://www.epa.gov/region03/
Phone: (215) 814-5000
Fax: (215) 814-5103
Toll free: (800) 438-2474
Email: r3public@epa.gov

Region 4 (AL, FL, GA, KY, MS, NC, SC, TN)
Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104
http://www.epa.gov/region04/
Phone: (404) 562-9900
Fax: (404) 562-8174
Toll free: (800) 241-1754

Region 5 (IL, IN, MI, MN, OH, WI)
Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604-3507
http://www.epa.gov/region5/
Phone: (312) 353-2000
Fax: (312) 353-4135
Toll free within Region 5: (800) 621-8431

Region 6 (AR, LA, NM, OK, TX)
Environmental Protection Agency
Fountain Place 12th Floor, Suite 1200
1445 Ross Avenue
Dallas, TX 75202-2733
http://www.epa.gov/region06/
Phone: (214) 665-2200
Fax: (214) 665-7113
Toll free within Region 6: (800) 887-6063

Region 7 (IA, KS, MO, NE)
Environmental Protection Agency
901 North 5th Street
Kansas City, KS 66101
http://www.epa.gov/region07/
Phone: (913) 551-7003
Toll free: (800) 223-0425

Region 8 (CO, MT, ND, SD, UT, WY)
Environmental Protection Agency
1595 Wynkoop St.
Denver, CO 80202-1129
http://www.epa.gov/region08/
Phone: (303) 312-6312
Fax: (303) 312-6339
Toll free: (800) 227-8917
Email: r8eisc@epa.gov

Region 9 (AZ, CA, HI, NV)
Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
http://www.epa.gov/region09/
Phone: (415) 947-8000
(866) EPA-WEST (toll free in Region 9)
Fax: (415) 947-3553
Email: r9.info@epa.gov

Region 10 (AK, ID, OR, WA)
Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101
http://www.epa.gov/region10/
Phone: (206) 553-1200
Fax: (206) 553-2955
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APPENDIX D: SPILL RESPONSE INVENTORY

OIL AND HAZARDOUS SUBSTANCES (OHS) SPILL RESPONSE KIT

1. Explanation of Columns for OHS Spill Response Kit:

    a. Item Name

    b. COG Number

    c. Stock Number

    d. Column 1: quantities recommended for:

        Cutters over 200 ft in length

    e. Column 2: quantities recommended for:

        Cutters between 65 and 200 ft in length

OIL AND HAZARDOUS SUBSTANCES (OHS) SPILL RESPONSE KIT

Item Description	COG	Stock Number	Column 1	Column 2
Spill Containment Material				
Sorbent Sweep (18" x 100' bale)	9G	4235-01-281-4608	16 ea	8 ea
Sorbent Sheet (18"x18" - 100 sheet/bale)	9G	4235-01-219-7414	2 be	1 be
Oil & Water Absorbent (20/bx) (Absorbent Pillow)	9Q	7930-01-353-6414	1 bx	1 bx
Sorbent Sox (15/bx)	9Q	7930-01-353-6415	1 bx	1 bx
Decontaminating Agent (15lb/cn)	9G	6850-01-230-8556	2 cn	1 cn
Steel Drum (30 gal)	9Z	8110-00-866-1728	1 ea	1 ea
Plastic Bags (100/bx)	9Q	8105-01-183-9764	1 bx	1 bx
Scrub Brush	9Q	7920-00-282-2470	12 ea	12 ea
Brush Handle	9Q	7920-00-141-5452	12 ea	6 ea
Rubber Dustpan	9Q	7920-00-616-0109	12 ea	6 ea
Squeegee	9Q	7920-00-224-8339	12 ea	6 ea
Tongs	9Q	7330-00-616-0998	6 ea	3 ea
Sealing Tape	9Q	7510-01-362-7043	2 ro	1 ro
Personal Protective Equipment (PPE)				
Disposable Coveralls, Large (6/cs) (Saranex Coated)	9D	8415-01-415-7450	1 cs	1 cs
Disposable Coveralls, Medium (6/cs) (Saranex Coated)	9D	8415-01-415-7451	1 cs	1 cs
Coveralls, Medium	9D	8415-00-601-0794	6 ea	6 ea
Coveralls, Large	9D	8415-00-601-0797	6 ea	6 ea
Toxicological Gloves	9D	8415-00-753-6553	6 pr	3 pr
Chemical & Oil Gloves (Sz 10)	9D	8415-01-013-7382	24 pr	12 pr
Surgeon's Gloves (50/pkg)	9L	6515-01-145-8841	2 pkg	1 pkg
Air Filtering Mask (20/bx) (Note 1)	9D	4240-01-429-2685 P/N 5450T12	1 bx	1 bx
Air Filtering Respirator (12/bx)	9Z	4240-01-300-9411	1 bx	1 bx
Air Filtering Respirator	9Z	4240-01-022-8501	12 ea	6 ea

OIL AND HAZARDOUS SUBSTANCES (OHS) SPILL RESPONSE KIT

Item Name	COG	Stock Number	Column 1	Column 2
Personal Protective Equipment (PPE) ***(Cont'd)***				
Air Filtering Respirator Cartridge, Organic Vapor/Acid (10/bx)	9Z	4240-01-103-8475	1 bx	1 bx
Air Filtering Respirator Cartridge, Dust, mist, fumes (10/bx)	9Z	4240-01-230-6894	2 pg	1 pg
Chemical Goggles	9Z	4240-00-190-6432	12 pr	6 pr
Accessories				
Accessories Storage Box	9C	2540-00-348-7792	4 ea	2 ea
Blue Litmus Paper (100/bx) (Note 2)	9L	6640-00-290-0146	1 bx	1 bx
Guide for Hazardous Material Incidents, Emergency Response Handbook	9Z	7610-01-350-5837	1 ea	1 ea
Non-Regulated Hazardous Material (Spill Residue) Label	1H	MSC 4400/5 (10/97)	1 pkg	1 pkg
PCB Identification Label (Note 3)	1H	NAVSEA 5090/3 1L 0116-LF-008-6500	1 pkg	1 pkg
Tending Line, 1/4 in diameter (50 ft) (Note 4)	9Q	4020-00-968-1350	2 rl	2 rl
Snap Hook (Note 4)	9Z	5340-00-275-4584	16 ea	8 ea
Notes/Remarks				
Note 1: The air mask is designed for use in non-oil contaminated atmospheres and must meet NIOSH N95 standards. The masks can be open purchased.				
Note 2:Litmus Paper not stocked in wholesale system, must procure locally.				
Note 3: Requisition from NAVICP-Phila.				
Note 4: 2 50 ft Tending Lines will be fabricated by ship's force using snap hooks and tending line. A snap hook will be attached to each end of the tending line for use in guiding sorbent sweep when used over the side.				