ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF DEFENSE

40 CFR Chapter VII and Part 1700

[FRL–6145–4]

RIN 2040–AC96

Uniform National Discharge Standards for Vessels of the Armed Forces

AGENCY: Environmental Protection Agency (EPA) and Department of Defense (DOD).

ACTION: Proposed rule.

SUMMARY: This proposed rule describes the types of discharges generated incidental to the normal operation of Armed Forces vessels and identifies which of these discharges the Armed Forces will be required to control, and which vessel discharges will not require pollution controls.

Today's proposal also addresses; the mechanism by which States can petition EPA and DOD to review whether or not a discharge should require control by a marine pollution control device (MPCD), or to review a Federal performance standard for a MPCD; the effect on State regulation of vessel discharges; and the processes to be followed by EPA and States when establishing no-discharge zones (where any release of a specified discharge is prohibited).

This is the first phase of a three-phased process to set uniform national discharge standards (UNDS) for Armed Forces vessels. Phase I will establish which types of discharges warrant control and which do not, based on consideration of the anticipated environmental effects of the discharge and other factors listed at section 312(n) of the Clean Water Act. Phase II will promulgate MPCD performance standards, and Phase III will specify requirements for the design, construction, installation, and use of MPCDs.

Uniform national discharge standards will result in enhanced environmental protection because standards will be established for certain discharges that currently are not regulated comprehensively. These standards will also advance the ability of the Armed Forces to better design and build environmentally sound vessels, to train crews to operate vessels in a manner that is protective of the environment, and to maintain operational flexibility both domestically and internationally. In addition, these standards are expected to stimulate the development of innovative vessel pollution control technology.

DATES: Comments on the proposed rule must be received or postmarked by October 9, 1998. For information on submitting comments on the draft information collection request that was prepared for the proposed rule, see **SUPPLEMENTARY INFORMATION** ''How to Submit Comments on the Information Collection Request.''

ADDRESSES: Send written comments on the proposed rule to: Docket W–97–21 UNDS Comment Clerk, Water Docket, Mail Code 4101, U.S. EPA, 401 M Street SW., Washington, DC 20460. Please submit an original and three copies of your comments and enclosures (including references). No facsimiles (faxes) will be accepted. Commenters requesting acknowledgment that their comments were received should enclose a self-addressed stamped envelope with their comments. Comments may also be filed electronically to ow-docket@epa.gov. Electronic comments must be submitted as an ASCII or WordPerfect file avoiding the use of special characters and any form of encryption. Electronic comments must be identified by the docket number W–97–21 and may be filed online at many Federal Depository Libraries.

The record for this proposed rulemaking has been established under docket number W–97–21 and is available for review at the Office of Water Docket, Room EB–57, 401 M Street SW., Washington, DC The record is available for inspection from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding legal holidays. For access to docket materials, please call (202) 260–3027 to schedule an appointment.

For information on how to obtain a copy of the Information Collection Request (ICR) that has been prepared for this proposed rule, or for information on where to submit comments on the draft ICR document, see **SUPPLEMENTARY INFORMATION** ''How to Submit Comments on the Information Collection Request.''

FOR FURTHER INFORMATION CONTACT: Mr. Gregory Stapleton (U.S. EPA) at (202) 260–0141, or Mr. David Kopack (U.S. Navy) at (703) 602–3594 ext. 243.

SUPPLEMENTARY INFORMATION:

Regulated Entities

This proposed rule would apply to discharges incidental to the normal operation of vessels of the Armed Forces, establish procedures for States to petition EPA and DOD to review whether a discharge should be controlled, and establish procedures for creating no-discharge zones in State waters. Regulated categories and entities include:

Category	Examples of regulated entities
Federal Government.	Vessels of the Armed Forces, including the Navy, Military Sealift Command, Marine Corps, Army, Air Force, and Coast Guard.

The preceding table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this proposed action. This table lists the types of entities that EPA and DOD are now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether a particular category of vessel, discharge from a vessel, or governmental entity is regulated by this proposed action, carefully examine the applicability criteria at proposed 40 CFR 1700.1 in the regulatory text following this preamble. For answers to questions regarding the applicability of this proposed action to a particular entity, consult one of the persons listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Exclusions

This proposed rule would not apply to commercial vessels; private vessels; vessels owned or operated by State, local, or tribal governments; vessels under the jurisdiction of the Army Corps of Engineers; vessels, other than those of the Coast Guard, under the jurisdiction of the Department of Transportation; vessels preserved as memorials and museums; time- and voyage-chartered vessels; vessels under construction; vessels in drydock; and amphibious vehicles.

Supporting Documentation

The technical basis for this proposed rule is detailed in the ''Technical Development Document for Proposed Phase I Uniform National Discharge Standards for Vessels of the Armed Forces'' (EPA–821–R–98–009), hereafter referred to as the Technical Development Document. This background document is available through EPA's Internet Home Page at http://www.epa.gov/OST/rules, or through the UNDS Internet Home Page at http://206.5.146.100/n45/doc/unds/unds.html. This document is also available from the EPA Water Resource Center, Room EB–47, 401 M Street SW., Washington, DC 20460; telephone (202) 260–7786 for the voice mail publication request line.

How To Submit Comments on the Information Collection Request

An Information Collection Request (ICR) document has been prepared by EPA (ICR No.1791.02, amending the collection with OMB control #2040–0187) and a copy may be obtained from Sandy Farmer by mail at OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW; Washington, DC 20460, by email at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

Send comments on the ICR to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M St., S.W., Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after August 25, 1998, a comment to OMB is best assured of having its full effect if OMB receives it by September 24, 1998.

Overview

This preamble describes the legal authority, background, technical basis, and other aspects of the proposed regulation. The definitions, acronyms, and abbreviations used in this proposed rule are defined in appendix A to the preamble. The regulatory text for this proposed rule (40 CFR Part 1700) follows the preamble.

Organization of This Document

I. Purpose and Summary of This Rulemaking

A. Pollution Control Requirements for Vessel Discharges

Today's document proposes to create a new 40 CFR Part 1700 establishing uniform national discharge standards that would apply to discharges incidental to the normal operation of vessels of the Armed Forces. Incidental discharges include effluent from the normal operation of vessel systems or hull protective coatings, but do not include such things as emergency discharges, air emissions, or discharges of trash. These proposed regulations identify discharges that would require control through the use of marine pollution control devices (MPCDs). This document also identifies discharges that are proposed to be excluded from any requirement for a marine pollution control device because of their low potential for causing environmental impacts.

This proposed rule addresses 39 types of discharges from Armed Forces vessels. EPA and DOD are proposing to require the use of MPCDs to control 25 of these discharges. These discharges are listed in Table 1 and described in section V.C of the preamble. Section V.C also discusses whether and to what extent the discharges have the potential to cause adverse impacts on the marine environment, the availability of MPCDs to mitigate adverse impacts, and the rationale for proposing to require the use of MPCDs.

TABLE 1.—DISCHARGES REQUIRING MARINE POLLUTION CONTROL DEVICES

Aqueous Film-Forming Foam.
Catapult Water Brake Tank and Post-Launch Retraction Exhaust.
Chain Locker Effluent.
Clean Ballast.
Compensated Fuel Ballast.
Controllable Pitch Propeller Hydraulic Fluid.
Deck Runoff.
Dirty Ballast.
Distillation and Reverse Osmosis Brine.
Elevator Pit Effluent.
Firemain Systems.
Gas Turbine Water Wash.
Graywater.
Hull Coating Leachate.
Motor Gasoline Compensating Discharge.
Non-oily Machinery Wastewater.
Photographic Laboratory Drains.
Seawater Cooling Overboard Discharge.
Seawater Piping Biofouling Prevention.
Small Boat Engine Wet Exhaust.
Sonar Dome Discharge.
Submarine Bilgewater.
Surface Vessel Bilgewater/Oil-Water Separator Discharge.
Underwater Ship Husbandry.
Welldeck Discharges.

For 14 types of vessel discharges, EPA and DOD have determined that it is not reasonable and practicable to require the use of MPCDs because these discharges, listed in Table 2, exhibit a low potential for causing adverse impacts on the marine environment. Section V.D of the preamble describes each of these discharges and the reasons why MPCDs would not be required.

TABLE 2.—DISCHARGES EXEMPTED FROM CONTROLS

Boiler Blowdown.
Catapult Wet Accumulator Discharge.
Cathodic Protection.
Freshwater Lay-up.
Mine Countermeasures Equipment Lubrication.
Portable Damage Control Drain Pump Discharge.
Portable Damage Control Drain Pump Wet Exhaust.
Refrigeration/Air Conditioning Condensate.
Rudder Bearing Lubrication.
Steam Condensate.
Stern Tube Seals and Underwater Bearing Lubrication.
Submarine Acoustic Countermeasures Launcher Discharge.
Submarine Emergency Diesel Engine Wet Exhaust.
Submarine Outboard Equipment Grease and External Hydraulics.

B. Effect on State and Local Laws and Regulations

This proposed rule, identifying which vessel discharges require control, is the first step of a three-phased process to establish uniform national discharge

standards under section 312(n) of the Clean Water Act (CWA). Establishing MPCD performance standards and promulgating regulations governing the design and use of MPCDs will be accomplished in the second and third phases of the UNDS process. The standards being proposed today affect State and local laws and regulations in several ways. Under section 312(n)(6) of the Clean Water Act (CWA), States and their political subdivisions would be prohibited from adopting or enforcing any State or local statute or regulation with respect to the discharges listed in Table 2 once this proposed rule is in effect, other than to establish no-discharge zones for these discharges. States and their political subdivisions would be similarly prohibited from adopting or enforcing any statutes or regulations affecting the discharges listed in Table 1 once regulations governing MPCDs for those discharges are in effect.

Second, this notice proposes the procedural mechanisms by which a State can petition EPA and DOD to review whether a discharge should require control by a MPCD. Finally, this proposed rule would codify the process for establishing no-discharge zones (where any release of a specified discharge is prohibited) where necessary to protect and enhance the quality of some or all of the waters within a State. These procedures, contained in proposed 40 CFR 1700.6 through 1700.13, are discussed in section VI of this preamble.

II. Legal Authority and Background

A. Clean Water Act Statutory Requirements

Section 325 of the National Defense Authorization Act of 1996, entitled ''Discharges from Vessels of the Armed Forces'' (Pub. L. 104–106, 110 Stat. 254), amended section 312 of the Federal Water Pollution Control Act (also known as the Clean Water Act, or CWA) to require the Secretary of Defense (Secretary) and the Administrator of the United States Environmental Protection Agency (Administrator) to develop uniform national standards to control certain discharges from vessels of the Armed Forces. Congress established requirements for the development of uniform national discharge standards to (1) enhance the operational flexibility of vessels of the Armed Forces domestically and internationally, (2) stimulate the development of innovative vessel pollution control technology, and (3) advance the development by the U.S. Navy of environmentally sound ships. The term ''UNDS'' is used in this preamble to refer to the provisions in section 312(n) of the CWA (33 U.S.C. 1322(n)).

UNDS applies to vessels of the Armed Forces and discharges (other than sewage) incidental to their normal operation, unless the Secretary finds that compliance with UNDS would not be in the national security interests of the United States (see CWA section 312(n)(1)). UNDS does not apply to discharges overboard of rubbish, trash, garbage, or other such materials; air emissions resulting from a vessel propulsion system, motor driven equipment, or incinerator; or discharges that require permitting under the National Pollutant Discharge Elimination System (NPDES) program, 40 CFR part 122 (see CWA section 312(a)(12)).

UNDS is applicable to discharges of Armed Forces vessels in the navigable waters of the United States and the contiguous zone. As defined in section 502(7) of the CWA, the term ''navigable waters'' means waters of the United States, including the Great Lakes, and includes waters seaward from the coastline to a distance of 3 nautical miles from the shore of the States, District of Columbia, Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Canal Zone, and the Trust Territories of the Pacific Islands. The contiguous zone extends from 3 nautical miles to 12 nautical miles from the coastline. UNDS is not enforceable beyond the contiguous zone.

Although UNDS makes no changes to the regulation of sewage from vessels, UNDS was patterned after provisions for the control of vessel sewage discharges in the CWA (sections 312(a)—(m)). These provisions require promulgation of Federal standards for performance of marine sanitation devices, preemption of State regulation of marine sanitation devices, and the opportunity to establish no-discharge zones (see CWA sections 312(a)–(m) and 40 CFR part 140).

UNDS requires EPA and the Department of Defense (DOD) to develop regulations and performance standards for controlling discharges incidental to the normal operation of Armed Forces vessels where EPA and DOD determine that it is reasonable and practicable to require use of a marine pollution control device (MPCD) to mitigate adverse impacts on the marine environment. The UNDS regulations are to be developed in three phases:

Phase I: The first phase requires DOD and EPA to determine Armed Forces vessel discharges for which it is reasonable and practicable to require control with a MPCD to mitigate potential adverse impacts on the marine environment (CWA section 312(n)(2)). The UNDS legislation states that a MPCD may be a piece of equipment or a management practice designed to control a particular discharge (CWA section 312(a)(13)). DOD and EPA are required to consider seven factors in determining whether a discharge requires a MPCD (CWA section 312(n)(2)(B)):

- The nature of the discharge.
- The environmental effects of the discharge.
- The practicability of using the MPCD.
- The effect that installing or using the MPCD has on the operation or the operational capability of the vessel.
- Applicable United States law.
- Applicable international standards.
- The economic costs of installing and using the MPCD.

The UNDS legislation requires DOD and EPA to consult with the Secretary of the department in which the Coast Guard is operating, the Secretary of Commerce, and interested States in the Phase I rule development. UNDS provides that after promulgation of the Phase I rule, neither States nor political subdivisions of States may adopt or enforce any State or local statutes or regulations with respect to discharges identified as not requiring control with a MPCD, except to establish no-discharge zones (CWA section 312(n)(6)).

Phase II: The second phase of UNDS requires DOD and EPA to promulgate Federal performance standards for each MPCD determined to be required in Phase I (CWA section 312(n)(3)). Phase II requires consultation with the Secretary of the department in which the Coast Guard is operating, the Secretary of State, the Secretary of Commerce, other interested Federal agencies, and interested States. In developing performance standards for the Phase II rulemaking, DOD and EPA are to consider the same seven factors identified for Phase I, and can establish standards that (1) distinguish among classes, types, and sizes of vessels; (2) distinguish between new and existing vessels; and (3) provide for a waiver of applicability of standards as necessary or appropriate to a particular class, type, age, or size of vessel (CWA section 312(n)(3)(C)). The mechanisms for determining compliance with performance standards and the role of States and Federal agencies in enforcement matters will be addressed during Phases II and III.

Phase III: The third phase requires DOD, in consultation with EPA and the

Secretary of the department in which the Coast Guard is operating, to establish requirements for the design, construction, installation, and use of the MPCDs identified in Phase II (CWA section 312(n)(4)). These Phase III requirements will be codified under the authority of the Secretary of Defense. Additional details regarding codification of these requirements will be provided in Phase II. Following completion of Phase III, neither States nor political subdivisions of States may adopt or enforce any State or local statutes or regulations with respect to discharges identified as requiring control with a MPCD, except to establish no-discharge zones (CWA section 312(n)(6)).

UNDS provides for the establishment of no-discharge zones either by State prohibition (CWA section 312(n)(7)(A)) or by EPA prohibition (CWA section 312(n)(7)(B)). Today's proposal addresses the criteria and procedures for establishing no-discharge zones. For a State prohibition, if a State determines that the protection and enhancement of the quality of some or all of its waters require greater environmental protection, the State may prohibit one or more discharges, whether treated or not, into those waters. However, the statute provides that such a prohibition shall not be effective until EPA determines that there are adequate facilities for the safe and sanitary removal of the discharges(s), and that the prohibition will not have the effect of discriminating against an Armed Forces vessel by reason of the ownership or operation by the Federal Government, or the military function, of the vessel.

For a no-discharge zone by EPA prohibition, a State may request EPA to prohibit, by regulation, the discharge of one or more discharges, whether treated or not, into specified waters within a State. In this case, EPA makes the determination that the protection and enhancement of the quality of the specified waters require a prohibition of the discharge. As with a State prohibition, EPA must also determine that there are adequate facilities for the safe and sanitary removal of the discharge, and that the prohibition will not discriminate against Armed Forces vessels by reason of their Federal ownership or operation, or their military function. However, the statute directs that EPA shall not disapprove an application for an EPA prohibition for the sole reason that there are not adequate facilities for the safe and sanitary removal of such discharges.

The UNDS legislation contains two provisions for reviewing and modifying performance standards and determinations of whether a MPCD is required. The first requires DOD and EPA to review the determinations and standards every five years, and if necessary, revise them based on any significant new information (CWA sections 312(n)(5)(A) and (B)). The second provision allows States, at any time, to petition the Secretary and the Administrator to review the determinations (after Phase I) and standards (after Phase II) if there is significant new information, not considered previously, that could reasonably result in a change to the determination or standard (CWA section 312(n)(5)(D)).

B. Summary of Public Outreach and Consultation With States and Federal Agencies

In developing this proposed rule, EPA and DOD have consulted with other interested Federal agencies, States, and environmental organizations. Other Federal agencies that have been involved in UNDS development include the Coast Guard (for the Department of Transportation), the Department of State, and the National Oceanic and Atmospheric Administration (for the Department of Commerce). The Coast Guard has been involved in all aspects of UNDS development. The other agencies have participated with the DOD, EPA, and the Coast Guard in the UNDS Executive Steering Committee, which is responsible for UNDS policy development and is composed of senior-level managers. Separately, the DOD and EPA have held discussions with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on UNDS matters.

Two mechanisms have been used to consult with States. First, a representative from the Environmental Council of the States (ECOS) participates in Executive Steering Committee meetings. ECOS is the national association of State and territorial environmental commissioners and has been established, in part, to provide State positions on environmental issues to EPA. Second, representatives from the Navy (as the lead for the DOD), EPA, and the Coast Guard met at least once, and in most cases twice, with each State expressing an interest in the UNDS development. The interested States were predominantly those with a significant presence of Navy or Coast Guard vessels. The States participating in the consultation meetings are identified in the Technical Development Document.

In early 1996, the Navy and EPA invited States with a DOD or Coast Guard vessel presence to participate in an initial round of consultation meetings. Of the approximately 40 States invited, 21 States requested a consultation meeting. These initial State consultation meetings were held between August and December 1996. State environmental regulatory authorities hosted each meeting, which consisted of a Navy/EPA briefing on UNDS activities and an opportunity to discuss State-specific issues. A Coast Guard representative was present at each meeting to provide input on discharges from Coast Guard vessels. The Navy/EPA briefing provided a summary of the UNDS history and requirements, considerations for evaluating discharges, the technical approach to determining which discharges will require control, an overview of the vessels to which UNDS is applicable, and the roles of DOD and EPA in the rulemaking process. See ''Uniform National Discharge Standards (UNDS) State Consultation Meetings (Round #1) Compendium of Minutes,'' available in the record for this proposed rule.

The Navy and EPA conducted a second round of State consultation meetings from October 1997 through January 1998. Of the 22 States consulted in the second round of meetings, five were States that had not been briefed during the initial round. The second round of consultation meetings provided Navy and EPA an opportunity to summarize the activities that had taken place since the initial round of consultation meetings. This included discussing the 39 types of vessel discharges covered by this proposed rule and the preliminary decisions regarding which of the discharges would be proposed to require control. States were provided information that included a description of the discharges and the equipment or processes generating the discharges, the locations where the discharges occur, vessels producing the discharges, the preliminary results of environmental effects analyses, and the preliminary conclusions of whether controls would be required. States were generally supportive of the UNDS effort. States most commonly expressed interest in matters related to the implementation of UNDS regulations, including enforcement and procedures for establishing no-discharge zones, the relationship between UNDS and other State programs, which vessels are subject to UNDS, and discussions about potential MPCD options.

In addition to State meetings, the Navy, EPA, and Coast Guard met with several environmental organizations in December 1997 and May 1998. Details

of the topics discussed and environmental organizations represented at those meetings are in the record for this proposed rule. A compendium of the minutes from the second round of State consultation meetings and the meetings with environmental organizations is available in the record for this proposed rule. See ''Uniform National Discharge Standards (UNDS) Consultation Meetings (Round #2) Compendium of Minutes.''

The Navy and EPA publish a newsletter that contains feature articles on UNDS-related subjects (e.g., nonindigenous species, Navy research and development programs), provides answers to frequently asked questions, and provides an update on recent progress and upcoming events. The newsletter is mailed to State and environmental group representatives, Armed Forces and EPA contacts, and interested members of the general public. The newsletter has a current circulation of 360 copies, approximately 200 of which are distributed outside of the EPA, DOD, or their contractors. In addition, electronic copies of the newsletter are available from an UNDS web site on the Internet (http://206.5.146.100/n45/doc/unds/unds.html). In addition to the newsletter, the Internet web site provides UNDS legislative information, a summary of the technical and management approach to rule development, and a description of the benefits expected to result from the development of UNDS.

III. Description of Armed Forces Vessels

Section 312(a)(14) of the CWA, as amended by the National Defense Authorization Act of 1996, defines a vessel of the Armed Forces as ''(A) any vessel owned or operated by the Department of Defense, other than a time or voyage chartered vessel; and (B) any vessel owned or operated by the Department of Transportation that is designated by the Secretary of the department in which the Coast Guard is operating as a vessel equivalent to a vessel [owned or operated by the DOD].'' The CWA defines a vessel as every type of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the navigable waters of the United States. See CWA sections 312(a)(1) and 312(a)(2). Also see 40 CFR 140.1(d).

The scope of the UNDS legislation addresses incidental discharges from over 7,000 vessels (i.e., ships, submarines, and small boats and craft) of differing designs and mission requirements. The Armed Forces that operate vessels subject to UNDS include the Navy, Military Sealift Command, Army, Marine Corps, Air Force, and Coast Guard. Table 3 summarizes the number of vessels operated by each of these branches of the Armed Forces as of August 1997. The following sections provide a general description of the mission of vessels operated by each branch of the Armed Forces and the types of vessels covered by UNDS. Also provided is a description of the vessels that are excluded from this proposed rule. Armed Forces vessels and their operating locations are discussed in more detail in the Technical Development Document.

TABLE 3.—NUMBER OF ARMED FORCES VESSELS

Branch of armed forces	Number of vessels
Navy	4,760
Military Sealift Command	57
Army	334
Marine Corps	538
Air Force	36
Coast Guard	1,445
Total	7,172

A. U.S. Navy

The role of the Navy is to maintain an effective naval fighting force for the defense of the United States in times of war, and to deploy this force to prevent conflicts and control crises around the world. The Navy is responsible for organizing, training, and equipping its forces to conduct prompt and sustained combat operations at sea. The fleet must be capable of carrying personnel, weapons, and supplies wherever needed.

The Navy currently owns and operates over 4,700 vessels. Navy vessels can be categorized into eight groups by similar mission: aircraft carriers, surface combatants, amphibious ships, submarines, auxiliaries, mine warfare ships, service craft and small boats, and inactive assets. Naval ships and submarines are ocean-going vessels that for the most part operate within 12 nautical miles (n.m.) from shore only during transit in and out of port. However, many of these vessels spend approximately 180 days per year in port, and many testing and maintenance activities are conducted in port or during transits. Service craft and small boats typically operate in ports or other coastal waters within 12 n.m. from shore. Unlike service craft, small boats are often kept out of the water when not in use to increase the vessels' longevity. Inactive assets include a variety of vessel types. The majority of inactive vessels are scheduled for scrapping, transfer to the Maritime Administration, or foreign sale. Table 4 provides a brief description of the vessel types, and information on the number of vessels and the vessels' primary operating areas.

The Navy bases the majority of its fleet at five major ports: Norfolk, Virginia; San Diego, California; Mayport, Florida; Puget Sound, Washington; and Pearl Harbor, Hawaii. These ports provide services including: pierside support services (e.g., potable water, sewage and trash disposal, and electrical power); supplies (e.g., repair parts, consumable materials, and food); and maintenance and repair functions. The Navy operates additional ports, identified in the Technical Development Document, that provide a subset of these services.

TABLE 4.—U.S. NAVY VESSELS

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Aircraft Carriers	Provide air combat support to the fleet with landing and launch platforms for airplanes and helicopters.	12		X
Surface Combatants	Provide air defense, ballistic missile defense, antisubmarine warfare support, antisurface warfare support, merchant and carrier group protection, independent patrol operations, and tactical support of land-based forces.	139		X

TABLE 4.—U.S. NAVY VESSELS—Continued

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Amphibious Ships	Provide a landing and take-off platform for aircraft, primarily helicopters, and a means for launching and recovering smaller landing craft.	39	X	X
Submarines	Provide strategic and ballistic defense, search and rescue, and research and survey capability.	88		X
Auxiliaries	Provide logistical support, such as underway replenishment, material support, and rescue and salvage operations.	20		X
Mine Warfare Ships	Conduct minesweeping missions to find, classify, and destroy mines	26	X	
Service Craft and Small Boats	Provide a variety of services. Includes tug boats, landing craft, training craft, torpedo retrievers, patrol boats, utility boats, floating drydocks, barges, and transport boats.	4,192	X	
Inactive Assets	Vessels in various states of readiness, the majority of which are scheduled for scrapping, transfer to MARAD, or sale to foreign nations.	244	X[a]	

[a] These vessels are not operated and are kept at various port locations

B. Military Sealift Command (MSC)

The primary mission of the MSC is to transport Department of Defense materials and supplies, provide towing and salvage services, and conduct specialized missions for Federal agencies. To accomplish this, the MSC maintains and operates a fleet of vessels classified within four major maritime programs: the Special Mission Support Force (SMSF); the Naval Fleet Auxiliary Force (NFAF); the Afloat Prepositioning Force; and MSC Strategic Sealift Program. MSC vessels are operated primarily by civil service mariners, but also by some military personnel or mariners under contract to MSC. UNDS does not apply to chartered Strategic Sealift and Afloat Prepositioning Force vessels. See CWA section 312(a)(14) excluding time or voyage chartered vessels from the definition of vessels of the Armed Forces.

MSC vessels provide support to other Armed Forces vessels and can be stationed around the globe to ensure rapid support. MSC vessels are ocean-going vessels that typically operate within 12 n.m. only during transit in and out of port. Some testing and maintenance activities are conducted while the vessel is in port or during transits through coastal waters. Table 5 provides a brief description of MSC vessel types, and information on the number of vessels and their primary operating areas.

The MSC operates no major port facilities of its own, instead maintaining its vessels at Navy and commercial port facilities. A number of MSC replenishment and auxiliary vessels operate out of the Navy's ports in Norfolk, Virginia; San Diego, California; and Pearl Harbor, Hawaii.

TABLE 5.—MSC VESSELS

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Special Mission Support Force	Support the Armed Forces in specialized missions such as undersea surveillance, missile range tracking, oceanographic and hydrographic surveys, acoustic research, and submarine escort.	22		X
Naval Fleet Auxiliary Force	Provide underway replenishment services (i.e., deliver fuel, food, spare parts, equipment, and ammunition) to Navy surface combatants, as well as ocean towing and salvage services.	35		X

C. U.S. Coast Guard

The Coast Guard is a component of the Department of Transportation and is responsible for enforcing laws on waters of the U.S., including coastal waters, oceans, lakes, and rivers subject to the jurisdiction of the United States. Peacetime missions include enforcing recreational boating safety, conducting search and rescue operations, maintaining aids to navigation, ensuring merchant marine safety, providing drug interdiction, and facilitating environmental protection efforts. In time of war, the Coast Guard may become a part of the Navy.

Coast Guard vessels may be categorized as: icebreakers; cutters; tenders; tugboats; small boats and craft; and other vessels. Table 6 provides a brief description of the vessel types, and information on the number of vessels and their typical operating areas.

The major Coast Guard facilities are located in Boston, Massachusetts; Honolulu, Hawaii; Charleston, South Carolina; Alameda, California; Galveston, Texas; Seattle, Washington; Miami, Florida; and Portsmouth, Virginia. Coast Guard duty stations can also be found on inland, coastal, and river waterways throughout the U.S. Ship repair and overhaul is usually conducted at a commercial facility near the homeport of the vessel.

TABLE 6.—U.S. COAST GUARD VESSELS

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Ice breakers	Support the winter icebreaking efforts in order to maintain open waterways in the Arctic, Antarctic, and the northern regions of the United States including the Great Lakes, Northwest, and Northeast.	3	X	X
Cutters	Provide multi-mission capability, including patrol, air defense, search and rescue, and drug interdiction.	128	X	X
Tenders	Used to maintain inland river, coastal, and offshore buoys and navigational aids, or to serve as a construction platform.	76	X	
Tugboats	Provide towing and support services to other vessels	20	X	
Small Boats and Craft	Used in harbors, in rough surf for rescue, for inland river and lake patrol, as transports, and for firefighting.	1,217	X	
Other Vessel	Includes a sailing cutter used for training	1	X	

D. U.S. Army

Army vessels are used primarily for ship-to-shore transfer of equipment, cargo, and personnel. The Army operates one major port facility at Fort Eustis, Virginia for active duty vessels, and numerous other port facilities for reserve duty vessels. The Army's fleet is divided into three categories: the Transportation Corps, the Intelligence and Security Command, and the Corps of Engineers. The Army Transportation Corps operates lighterage and floating utility craft to provide waterborne delivery (inland and ship-to-shore) of equipment and supplies for all Armed Forces and to perform port terminal operations. The Intelligence and Security Command operates patrol vessels for drug interdiction. Army Corps of Engineers (COE) boats and craft are excluded from UNDS as discussed in section III.G of the preamble. Table 7 provides a brief description of Army vessels subject to the proposed rule, and information on the number of vessels and their primary operating areas.

TABLE 7.—U.S. ARMY VESSELS

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Lighterage	Transport equipment, cargo, and personnel	159	X	X
Floating Utility	Perform port terminal operations	168	X	
Patrol Ships	Perform drug interdiction	7		X

E. U.S. Marine Corps

A primary role of the Marine Corps is to employ military forces and equipment onto land from the sea. The Marine Corps uses 538 inflatable rubber craft for in-port, river, lake, and coastal operations. These craft are often kept out of the water when not in use to increase the craft's longevity. The Marine Corps makes use of available local port facilities and operates no major port facilities of its own.

F. U.S. Air Force

The Air Force operates some large vessels and a number of smaller boats and craft at various locations to support missile testing and operations. Table 8 provides a brief description of the vessel types, and information on the number of vessels and their primary operating areas.

The Air Force operates no major port facilities of its own. The larger Air Force vessels are located at Tyndall Air Force Base, Florida, and at Carrabelle, Florida. Small boats and craft are distributed among a number of local ports.

TABLE 8.—U.S. AIR FORCE VESSELS

Vessel type	Mission	Number	Primary operational area	
			Inside 12 n.m.	Outside 12 n.m.
Missile Retriever	Used to locate and recover practice missiles	5	X	X
Floating Utility	Used primarily for transportation, training, and repair	31	X	

G. Vessels Not Covered by This Proposed Rule

This proposed rule would apply only to Armed Forces vessels. This proposed rule would not apply to commercial vessels; privately owned vessels; vessels owned or operated by State, local, or tribal governments; vessels under the jurisdiction of the Army Corps of Engineers; vessels, other than those of the Coast Guard, under the jurisdiction of the Department of Transportation; vessels owned or operated by other Federal agencies that are not part of the Armed Forces; vessels preserved as

memorials and museums; time- and voyage-chartered vessels; vessels under construction; vessels in drydock; and amphibious vehicles. For clarification, several categories of these types of vessels that are beyond the scope of this proposed rule are described below.

1. U.S. Army Corps of Engineers Vessels

Army Corps of Engineers vessels are typically used for civil works purposes. Congress has consistently addressed the Army Corps of Engineers separately from other parts of the Department of Defense in both authorization and appropriations bills. Therefore, the DOD and EPA do not consider that Congress intended to apply UNDS to Army Corps of Engineers vessels.

2. Maritime Administration (MARAD) Vessels

A number of vessels are operated or maintained by the Maritime Administration, a part of the Department of Transportation. As established in section 312(a)(14) of the CWA, the definition of ''vessel of the Armed Forces'' includes those Department of Transportation vessels that are designated by the Secretary of the department in which the U.S. Coast Guard is operating (currently the Department of Transportation) as operating as a vessel equivalent to a DOD vessel. The Secretary of Transportation has determined that MARAD vessels, including the National Defense Reserve Fleet, do not operate equivalently to DOD vessels, and therefore MARAD vessels are not covered by UNDS.

3. Memorial and Museum Vessels

Ships and submarines preserved as memorials and museums once served a military mission. However, with the exception of one submarine, these vessels are no longer owned or operated by the Armed Forces, and therefore, they are not vessels of the Armed Forces and UNDS does not apply to them.

The submarine Nautilus is owned and operated by the Navy as a museum; however, the vessel is stationary and its systems are not routinely operated. Therefore, the EPA and DOD are proposing to exclude this vessel from the scope of UNDS.

4. Time- and Voyage-Chartered Vessels

CWA section 312(a)(14) specifically excludes time or voyage chartered vessels from the definition of ''vessels of the Armed Forces.'' Time- and voyage-chartered vessels are vessels operating under a contract between the vessel owner and a charterer (in this case, the Armed Forces) whereby the charterer hires the vessel for a specified time period or voyage, respectively. Such vessels at all times remain manned and navigated by the owner, and they are not owned and operated by the Armed Forces. Examples of chartered vessels are those operated by the MSC in the Afloat Prepositioning Force and the Strategic Sealift Program.

5. Vessels Under Construction

EPA and DOD do not consider a vessel under construction for the DOD or Coast Guard, and for which the Federal government has not taken custody, to be a ''vessel of the Armed Forces.'' UNDS would not apply to these vessels until the Federal government gains custody.

6. Vessels in Drydock

The statutory definition of ''discharge incidental to the normal operation of a vessel'' includes incidental discharges whenever the vessel is waterborne. See CWA section 312(a)(12). UNDS would not apply to discharges from vessels while they are in drydock because they are not waterborne, even if the discharges would otherwise meet the definition of a ''discharge incidental to the normal operation of a vessel.''

7. Amphibious Vehicles

EPA and DOD do not consider amphibious vehicles as a vessel for the purposes of UNDS because they are operated primarily as vehicles on land. Water use of these vehicles is of short duration for nearshore transit to and from vessels.

IV. Summary of Data Gathering Efforts

Once the scope of vessels to which UNDS would apply was determined, it was necessary to identify the universe of discharges and to characterize the nature of these discharges. The data gathering effort to support these objectives included surveys and consultations involving DOD and Coast Guard personnel with expertise in vessel operations and shipboard systems or equipment generating the discharges. The survey and consultation results were supplemented with sampling, where necessary. The following sections provide an overview of the data collection efforts. Additional details are presented in the Technical Development Document.

A. Surveys and Consultations

The Navy initiated the data collection process by compiling a list of discharges and existing information on these discharges, including summary results of previous sampling studies. The information was presented in a single report, ''U.S. Navy Ship Wastewater Discharges,'' available in the record for this proposed rule. The Navy provided this report, along with a survey, to each branch of the Armed Forces at the headquarters and field levels, including both shore installations and shipboard operators. The survey solicited comments on the accuracy and completeness of the attached report, and sought information on which vessels generate the discharges, discharge characteristics (e.g., pollutant constituents, discharge volumes, and flow rates), and any existing reports or documentation relating to any discharges not identified in the report.

The Navy and EPA supplemented the survey results by conducting ship visits and consulting with DOD and Coast Guard personnel with expertise in vessel systems, equipment, and operations that produce the discharges. The purpose of these consultations and ship visits was to clarify information gathered and to ensure all existing information on discharges was obtained.

B. Sampling and Analysis

As a result of the survey and consultation process, EPA and DOD identified 39 types of discharges incidental to the normal operation of Armed Forces vessels. For 30 of the 39 discharges, existing information gathered from surveys and consultations was sufficient to characterize the nature of the discharges and assess potential environmental impacts, if any, resulting from the discharges. EPA and DOD determined that existing information was insufficient to characterize the constituents and determine the environmental effects of the remaining nine discharges. These nine discharges, identified in Table 9, were sampled to obtain the additional data.

TABLE 9.—DISCHARGES SAMPLED

—Boiler Blowdown.
—Compensated Fuel Ballast.
—Distillation and Reverse Osmosis Brine.
—Firemain Systems.
—Freshwater Lay-up
—Non-Oily Machinery Wastewater.
—Seawater Cooling Overboard Discharge.
—Steam Condensate.
—Surface Vessel Bilgewater/Oil-Water Separator Discharge.

Samples were collected from ten vessels, representing a total of six Navy, Coast Guard, and MSC vessel types. Navy vessels sampled included an aircraft carrier, three surface combatants, two amphibious ships, and a submarine. Also sampled were a Coast Guard cutter and two MSC oilers, which are vessels used for fuel transport. The

sampling program was structured to address differences in wastestream characteristics among certain vessel types. Information on the discharges that were sampled from each ship and the constituents analyzed for each discharge is presented in the Technical Development Document. The technical basis for selecting the constituents analyzed and the reasons for sampling specific discharges on certain ship classes are presented in the document entitled ''Uniform National Discharge Standards Rationale for Initial Discharge Sampling.'' Both documents are available in the record for this proposed rule.

V. Marine Pollution Control Device (MPCD) Requirements

CWA section 312(n)(2)(B) identifies the seven factors EPA and DOD are to consider in determining for which discharges it is reasonable and practicable to require use of a MPCD to mitigate adverse impacts on the marine environment. Those factors are listed in section II.A of this preamble. The methodology EPA and DOD used to assess the environmental effects, if any, resulting from each of the discharges is presented in section V.A below.

This proposed rule would apply to 39 types of vessel discharges. EPA and DOD are proposing to require the use of MPCDs to control 25 of these discharges. These discharges are listed in Table 1 and described below in section V.C. Section V.C also discusses the potential for the discharges to cause adverse impacts on the marine environment and the availability of MPCDs to mitigate adverse impacts. The MPCDs mentioned below in sections V.C may not be uniformly applicable to all vessels. The performance standards to be promulgated in a future rulemaking (UNDS Phase II) may distinguish among classes, types, and sizes of vessels; distinguish between new and existing vessels; and provide for a waiver of applicability for a particular class, type, age or size of vessel. (See CWA section 312(n)(3)C).)

EPA and DOD are proposing not to require the use of MPCDs for the remaining 14 vessel discharges. These discharges, listed in Table 2 and described below in section V.D, exhibit a low potential for causing adverse impacts on the marine environment. Therefore, EPA and DOD have determined, for this proposed rule, that it is not reasonable and practicable to require the use of MPCDs to mitigate adverse impacts on the marine environment.

A. Overview of Assessment Methodology

For the purposes of this proposed rule, EPA and DOD assessed the potential environmental effects of the discharges by asking the following questions concerning their chemical, physical, and biological characteristics:

—*Chemical Constituents.* Does the discharge contain constituents in concentrations that exceed State aquatic water quality criteria or Federal aquatic water quality criteria (as promulgated by EPA in the National Toxics Rule, 40 CFR 131.36) and have the potential to be released into the environment in significant amounts, resulting in a potential adverse impact on the environment?

—*Thermal Pollution.* Does the discharge pose the potential to exceed State thermal water quality criteria in the receiving waters beyond a mixing zone, and to a degree sufficient to have an adverse impact on the environment?

—*Bioaccumulative Chemicals of Concern.* Does the discharge have the potential to contain bioaccumulative chemicals of concern in amounts sufficient to have an adverse impact on the environment?

—*Nonindigenous Species.* Does the discharge have the potential to introduce viable nonindigenous aquatic species to new locations?

If the answer to any of the above questions was ''yes,'' EPA and DOD determined that the discharge had a potential for adverse environmental effect.

EPA and DOD used sampling results or process knowledge to identify the potential presence and concentration of constituents in the discharge. Constituent concentrations in the discharge were compared to Federal criteria promulgated by EPA in its National Toxics Rule, 40 CFR 131.36 (57 FR 60848; Dec. 22, 1992 and 60 FR 22230; May 4, 1995), referred to in this preamble as ''Federal criteria,'' and State water quality numeric criteria for the ten States with the most significant presence of Armed Forces vessels. These ten States are California, Connecticut, Florida, Georgia, Hawaii, New Jersey, South Carolina, Texas, Virginia, and Washington. Constituent concentrations in the discharge were compared against the most stringent of the Federal and ten States' criteria for that constituent. For almost all constituents, the State water quality criteria are more stringent than the Federal National Toxics Rule (NTR) criteria.

EPA and DOD used aquatic water quality criteria in this assessment because they are a measure of the level of water quality that provides for the protection and propagation of aquatic life.

EPA and DOD used saltwater aquatic life criteria for screening the discharges because most Armed Forces vessels operate in the brackish water of estuaries or bays, or in the marine environment off the coast or in open ocean, where the biology of the water body is dominated by saltwater aquatic life. Aquatic life criteria were used instead of human health criteria, which are related to consumption of fish and shellfish, because recreational activities such as fishing and swimming generally do not occur in the immediate vicinity of Armed Forces vessels.

Depending on the nature of the discharge, EPA and DOD compared discharge concentrations to either the acute or chronic criteria values. Where discharges are intermittent or occasional in nature, of relatively short duration (a few seconds to a few hours), and dissipate rapidly in the environment, constituent concentrations were compared to acute water quality criteria. Where discharges are of a longer duration or continuous and likely to result in concentrations in the environment that approach a steady state condition, the constituent concentrations were compared to chronic water quality criteria. Table 4–1 in the Technical Development Document lists the State criteria or Federal criteria used.

The initial screening process involved comparing the constituent concentrations in the undiluted discharge to the water quality criteria. For those discharges, such as cathodic protection, where the constituents diffuse from the exterior of a vessel or vessel component, EPA and DOD generally computed a concentration within a small mixing zone (a few inches to a few feet).

EPA and DOD further assessed those discharges that had constituents exceeding water quality criteria. EPA and DOD considered mass loadings, flow rates, the geographic location of the discharge, the manner in which the discharge occurs (e.g., continuous or intermittent), and in some cases, the effect of the dilution within a small mixing zone. The purpose of this further assessment was to determine whether the constituents are discharged with such a low frequency or in such small amounts that the resulting constituent mass loading has the potential to produce only minor or undetectable environmental effects, or whether the constituents are released in such a manner that dilution in a small mixing

zone quickly results in concentrations below water quality criteria. If so, EPA and DOD considered the chemical constituents of the discharge not to have the potential to adversely affect the environment.

In addition to chemical constituents, EPA and DOD assessed whether the discharges exceeded State thermal water quality criteria for the five States with the most significant presence of Armed Forces vessels. These States are California, Florida, Hawaii, Virginia, and Washington. Many discharges did not need a detailed assessment because they are discharged at ambient or only slightly elevated temperatures, or the volume or discharge rate is very low. EPA and DOD determined that six discharges are released at sufficiently high temperatures and volumes that further assessment was warranted to determine whether the discharge had the potential to cause an adverse thermal effect. These discharges are:

—Boiler Blowdown,
—Catapult Water Brake Tank And Post-Launch Retraction Exhaust,
—Catapult Wet Accumulator Discharge,
—Distillation And Reverse Osmosis Brine,
—Seawater Cooling Overboard Discharge, and
—Steam Condensate.

EPA and DOD modeled these discharges to determine the size of the mixing zone that would be needed for receiving waters to meet State thermal water quality criteria and compared this zone to State thermal mixing zone allowances. A more complete discussion of the models and procedures used for these assessments is provided in the Technical Development Document.

EPA and DOD reviewed each discharge to determine whether it contained bioaccumulative chemicals of concern, as identified in the Final Water Quality Guidance for the Great Lakes System (60 FR 15365; March 23, 1995). This guidance contains a list of bioaccumulative chemicals of concern identified after scientific study, in a process subjected to public notice and comment, designed to support a regionally uniform set of standards applicable to the waters of the Great Lakes. Table 4–1 of the Technical Development Document lists these bioaccumulative chemicals of concern. In every case where the presence of a bioaccumulative chemical of concern was confirmed in a discharge, EPA and DOD had already determined based on other information that it was reasonable and practicable to require control of that discharge.

EPA and DOD also assessed each discharge for its potential to transport viable living aquatic organisms between naturally isolated water bodies. Preventing the introduction of invasive nonindigenous aquatic species has been recognized as important in maintaining biodiversity, water quality, and the designated uses of water bodies. If the available data indicate that a discharge has a potential for transporting and then subsequently discharging viable aquatic organisms into waters of the U.S., then EPA and DOD considered the discharge to present a potential for causing adverse environmental effects from nonindigenous species introduction. In some cases EPA and DOD determined it was reasonable and practicable to require MPCDs to control a discharge even though information in the record indicates that the discharge has a low potential for adversely affecting the environment. For the chain locker effluent and sonar dome discharges, at least one class of Armed Forces vessel has a management practice or control technology already in place to control the environmental effects of the discharge. EPA and DOD considered the existence of a currently applied management practice or control technology to be sufficient indication that it was reasonable and practicable to require a MPCD. In other cases (non-oily machinery wastewater and photographic laboratory drains), analysis of whether the discharge had a potential to adversely affect the environment was inconclusive. However, EPA and DOD determined that it was reasonable and practicable to require an MPCD to mitigate possible adverse environmental effects from the discharge.

For each discharge that was determined to have the potential to adversely affect the environment, EPA and DOD conducted an initial evaluation of the practicability, operational impact, and economic cost of using a MPCD to control each discharge. EPA and DOD first determined whether a control technology or management practice is currently in place to control the discharge for environmental protection on any vessel type. The use of existing controls on a vessel was considered sufficient demonstration that at least one reasonable and practicable control is available for at least one vessel type. (This proposed Phase I UNDS rule does not address whether existing control technologies or management practices are adequate to mitigate potential adverse impacts. In Phase II of UNDS, EPA and DOD will promulgate MPCD performance standards for the discharges requiring control.) For discharges without any existing pollution controls, EPA and DOD analyzed potential pollution control options to determine whether it is reasonable and practicable to require the use of MPCDs. For every discharge that was found to have a potential to cause adverse environmental effects, EPA and DOD determined that it is reasonable and practicable to require a MPCD for at least one vessel type. The results of the MPCD assessments are presented in the Technical Development Document.

B. Peer Review

Peer review is a documented critical review of a scientific and technical work product. It is an in-depth assessment that is used to ensure that the final work product is technically sound. Peer reviews are conducted by qualified individuals who are independent of those who prepared the work product. For this proposed rule, reviewers were selected because of their technical expertise in assessing pollutant behavior in coastal and estuarine ecosystems, modeling pollutant concentrations, and predicting the effects of pollutant loadings on ambient water quality, sediments, and biota.

A technical report was prepared for each of the discharges covered by this proposed rule. These Nature of Discharge (NOD) reports include a discussion of how the discharge is generated, discharge volumes and frequencies, where the discharge occurs, chemical constituents present in the discharge, and relevant regulatory information or water quality criteria. The NOD reports also assess the potential for a discharge to cause an adverse environmental effect, and provide the process and environmental background information used in determining whether a particular discharge warrants control. NOD reports for each discharge are included as an appendix to the Technical Development Document.

NOD reports for five discharges were selected for peer review. For each of these discharges, EPA and DOD determined that it is not reasonable and practicable to require the use of MPCDs because they exhibit a low potential for causing adverse impacts on the marine environment. Peer reviewers were asked whether the data and process information presented in the NOD reports are sufficient to characterize the discharges; whether the analyses are appropriate for the discharges; and whether the conclusions regarding the discharges' potential for causing adverse environmental impacts are supported by

the information presented in the NOD reports.

Results of the peer review are compiled in the ''Peer Review Comments Document for Nature of Discharge Reports'' and are available for review in the rulemaking record. An initial assessment of the comments does not indicate any fundamental flaws in the methodology used by EPA and DOD to assess a discharge's potential to cause adverse impacts on the marine environment. EPA and DOD will address the peer review comments prior to promulgating the final Phase I rule.

C. Discharges Requiring the Use of a MPCD

For the reasons discussed below, EPA and DOD have initially determined that it is reasonable and practicable to require the use of a MPCD to control 25 discharges from vessels of the Armed Forces. Except where noted, the pollutant characteristics of these discharges indicate a potential to cause adverse environmental impacts. Table 10 lists those discharges for which EPA and DOD determined it was reasonable and practicable to require the use of a MCPD, and identifies the characteristics of each discharge that formed the basis of the determination. The terms ''Chemical Constituents,'' ''Thermal Pollution,'' ''Bioaccumulative Chemicals of Concern'' and ''Nonindigenous Species'' refer to the four questions described in section V.A.

TABLE 10.—DISCHARGES REQUIRING THE USE OF A MPCD AND THE BASIS FOR THE DETERMINATION.[a]

Discharge	Chemical constituents			Thermal pollution	Bioaccumulative chemicals of concern	Nonindigenous species	Other
	Oil	Metals	Organic Chemicals				
Aqueous Film-Forming Foam	.....	.....	.....	.....	.....	.....	[b]
Catapult Water Brake Tank Discharge & Post-Launch Retraction Exhaust	X	.....	.....	.....		.....	.....
Chain Locker Effluent	.....	.....	.....	.....		.....	[c]
Clean Ballast	.....	.....	.....	.....		X	.....
Compensated Fuel Ballast	X	.....	.....	.....		.....	.....
Controllable Pitch Propeller Hydraulic Fluid	X	.....	.....	.....		.....	.....
Deck Runoff	X	.....	.....	.....		.....	.....
Dirty Ballast	X	.....	.....	.....		.....	.....
Distillation and Reverse Osmosis Brine	.....	X	.....	.....		.....	.....
Elevator Pit Overboard Discharge	X	.....	.....	.....		.....	.....
Firemain Systems	.....	X	.....	.....		.....	.....
Gas Turbine Washdown Discharge	X	.....	X	.....		.....	.....
Graywater	.....	.....	X	.....		.....	.....
Hull Coating Leachate	.....	X	.....	.....		.....	.....
Motor Gasoline Compensated Overboard Discharge	X	.....	.....	.....		X	.....
Non-oily Machinery Wastewater	.....	.....	.....	.....		.....	[d]
Photographic Laboratory Drains	.....	.....	.....	.....		.....	[d]
Seawater Cooling Overboard Discharge	.....	X	.....	X		.....	.....
Seawater Piping Biofouling Prevention	.....	.....	.....	.....		.....	[e]
Small Boat Engine Wet Exhaust	.....	.....	X	.....		.....	.....
Sonar Dome Discharge	.....	.....	.....	.....		.....	[c]
Submarine Bilge Water	X	.....	.....	.....		.....	.....
Surface Vessel Bilge Water/Oil-Water Separator Discharges	X	.....	.....	.....		.....	.....
Underwater Ship Husbandry	.....	X	.....	.....		X	.....
Welldeck Discharges	X	.....	.....	.....		.....	.....

Notes:

[a] This table provides a simplified overview of the basis for requiring the use of MPCDs for particular discharges. It is not intended to fully characterize the discharges or describe the analyses leading to the decision. More complete characterizations of the discharges and the analyses leading to the decisions are presented in section V.C. and in the appendices of the Technical Development Document.

[b] Discharge may produce floating foam in violation of some State water quality standards.

[c] Discharge was determined to have a low potential to adversely affect the environment, but an existing MPCD is in place on at least one type of vessel to reduce this low potential even further.

[d] No conclusion was drawn on the potential of the discharge to adversely affect the environment, but EPA and DOD determined a MPCD is reasonable and practicable to mitigate any possible adverse effects.

[e] Chlorine and chlorination byproducts.

For this Phase I proposed rule, EPA and DOD identified at least one potential MPCD control option for each discharge that could mitigate the environmental impacts of the discharge from at least one class of Armed Forces vessel. In Phase II of the UNDS rulemaking, EPA and DOD will perform a more detailed assessment of MPCD control options. EPA and DOD will consider options that are being evaluated as part of research and development programs in addition to those that are currently available. EPA and DOD will evaluate MPCDs for all classes of vessels and promulgate the specific performance standards for each MPCD that are reasonable and practicable for that class of vessel. In developing specific MPCD performance standards, EPA and DOD will consider the same factors considered in Phase I. The Phase II rule may distinguish among vessel types and sizes, between new and existing vessels, and may waive the applicability of Phase II standards as necessary or appropriate to a particular type or age of vessel (see CWA section 312(n)(3)(B)).

The definition of a marine pollution control device, or MPCD, as used in this proposed rule is a control technology or a management practice that can reasonably and practicably be installed or otherwise used on a vessel of the Armed Forces to receive, retain, treat, control or discharge a discharge incidental to the normal operation of the vessel.

The discussions below provide a brief description of the discharges and the systems that produce the discharges EPA and DOD propose to control. The discussions highlight the most significant constituents released to the environment, and describes the current practice, if any, to prevent or minimize environmental effects. Because of the diversity of vessel types and designs, these control practices are usually not uniformly applied to all vessels generating the discharge. In addition, these controls do not necessarily represent the only control options available. The discharges are described in more detail in Appendix A of the Technical Development Document.

1. Aqueous Film Forming Foam (AFFF)

This discharge consists of a mixture of seawater and firefighting foam discharged during training, testing, and maintenance operations. Aqueous film forming foam (AFFF) is the primary firefighting agent used to extinguish flammable liquid fires on surface ships of the Armed Forces. AFFF is stored on vessels as a concentrated liquid that is mixed with seawater to create the diluted solution (3–6% AFFF) that is sprayed as a foam on the fire. The solution is applied with both fire hoses and fixed sprinkler devices. During planned maintenance of firefighting systems, system testing and inspections, and flight deck certifications, the seawater/foam solution is discharged either directly overboard from hoses, or onto flight decks and then subsequently washed overboard. These discharges are considered incidental to the normal operation of Armed Forces vessels. Discharges of AFFF that occur during firefighting or other shipboard emergency situations are not incidental to normal operations and are not subject to the requirements of this proposed rule.

AFFF is discharged from all Navy ships, those MSC ships capable of supporting helicopter operations, and Coast Guard cutters, icebreakers, and tugs. AFFF discharges generally occur at distances greater than 12 n.m. from shore, and in all cases more than 3 n.m. from shore due to existing Armed Forces operating instructions. The constituents of AFFF include water, bis(2-ethylhexyl)phthalate, 2-(2-butoxyethoxy)-ethanol, urea, alkyl sulfate salts, amphoteric fluoroalkylamide derivative, perfluoroalkyl sulfonate salts, triethanolamine, and methyl-1H-benzotriazole. Because the water used to mix with the AFFF concentrate comes from the vessel's firemain, the discharge will also include nitrogen (measured as total Kjeldahl nitrogen), copper, nickel, and iron from the firemain piping.

The AFFF discharge produces an aqueous foam intended to cool and smother fires. Water quality criteria for some States include narrative requirements for waters to be free of floating materials attributable to domestic, industrial, or other controllable sources, or include narrative criteria prohibiting discharges of foam. AFFF discharges in State waters would be expected to result in violating such narrative criteria for foam or floating materials. At present, the Navy uses certain management practices to control these discharges, including a self-imposed prohibition on AFFF discharges in coastal waters by most Armed Forces vessels. These management practices to control discharges of AFFF demonstrate the availability of a MPCD to mitigate the potential adverse impacts that could result from the discharge of AFFF. Therefore, EPA and DOD have determined that it is reasonable and practicable to require use of a MPCD for this discharge.

AFFF discharges occur beyond 3 n.m. but within 12 n.m. from shore infrequently and in relatively small volumes, and the diluted (3–6%) AFFF solution is not believed to exhibit significant toxic effects. Further, any discharges that do occur take place while the vessel is underway and will be dispersed in the turbulence of the vessel wake.

2. Catapult Water Brake Tank and Post-Launch Retraction Exhaust

This intermittent discharge is the oily water skimmed from the catapult water brake tank, and the condensed steam discharged when the catapult is retracted. Catapult water brakes are used to stop the forward movement of the steam-propelled catapults used to launch aircraft from Navy aircraft carriers. The catapult water brake system includes a water brake tank that contains freshwater, and water brake cylinders . During flight operations, water from the catapult water brake tank is continuously injected into the catapult water brake cylinders. At the end of a launch stroke, spears located on the front of the catapult pistons enter the water brake cylinders. The water in the cylinders builds pressure ahead of the spears, cushioning the catapult pistons to a stop. The catapult brake water is continuously circulated between the catapult water brake tank and the catapult water brake cylinders.

Prior to the launch stroke, lubricating oil is applied to the catapult cylinder through which the catapult piston and piston spear are driven. As the catapult piston is driven forward during the launch stroke, the catapult piston and spear carries lubricating oil from the catapult cylinder into the water brake cylinder at the end of the stroke. Over the course of multiple launchings, the oil and water circulating through the water brake cylinder and tank leads to the formation of an oil layer in the water brake tank. The oil layer can adversely affect water brake operation by interfering with the cooling of water in the water brake tank. To prevent excessive heat buildup in the tank, the oil is periodically skimmed off and discharged overboard. Additionally, as the catapult piston is retracted following the launch, expended steam from the catapult launch stroke and some residual lubricating oil from the catapult cylinder walls are discharged below the waterline through a separate exhaust pipe.

Only aircraft carriers generate this discharge. Catapult operations during normal flight operations generate both the water brake tank discharge and the post-launch retraction exhaust; however, flight operations take place beyond 12 n.m. from shore. Catapult testing which occurs within 12 n.m. always discharges the post-launch retraction exhaust, but usually does not add sufficient quantities of oil to the water brake tank to require skimming.

The water brake tank is used within 12 n.m. for dead-load catapult shots when testing catapults on new aircraft carriers, and following major drydock overhauls or major catapult modifications. This testing requires a minimum of 60 dead-load shots each and may occur over a period of several days within 12 n.m. from shore. New carrier testing occurs only once, and major overhauls generally occur on 5- to 7-year cycles in conjunction with drydocking. Major modifications to catapults may occur during an overhaul or pierside and are also infrequent events. Carriers also routinely perform no-load shots when leaving port. The number of no-load shots conducted when leaving port, however, usually do not add enough lubricating oil to the water brake tank to require skimming the oil while the ship is within 12 n.m. from shore.

The water brake tank and post-launch retraction exhaust discharges include lubricating oil, a limited thermal load associated with the heated oil and water (or condensed steam, in the case of the post-launch retraction exhaust), nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen), and metals such as copper and nickel from the piping systems. EPA and DOD analyzed the thermal effects of this discharge and concluded they were unlikely to exceed thermal mixing zone criteria in the States where aircraft carriers most frequently operate. The post-launch retraction exhaust discharge can contain oil, copper, lead, nickel, ammonia, bis(2-ethylhexyl)phthalate, phosphorus, and benzidine in concentrations exceeding State acute water quality criteria. The post-launch retraction exhaust discharge can also contain nitrogen in concentrations exceeding the most stringent State water quality criteria.

The Navy has imposed operational controls limiting the amount of oil applied to the catapult cylinder during the launch stroke, which directly affects the amount of oil that is subsequently discharged from the water brake tank or during the post-launch retraction exhaust. The Navy has also established requirements dictating when catapult testing is required within 12 n.m. from shore. These operational constraints minimize discharges of oil from the water brake tank and post-launch retraction exhaust in coastal waters. These existing management practices demonstrate the availability of controls for this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require use of a MPCD to mitigate potential adverse environmental impacts from this discharge.

3. Chain Locker Effluent

This discharge consists of accumulated precipitation and seawater that is occasionally emptied from the compartment used to store the vessel's anchor chain.

The chain locker is a compartment used to store anchor chain aboard vessels. Navy policy requires that the anchor chain, appendages, and anchor on Navy surface vessels be washed down with seawater during retrieval to prevent onboard accumulation of sediment. During washdown, some water adheres to the chain and is brought into the chain locker as the chain is stored. The chain locker sump accumulates the residual water and debris that drains from the chain following anchor chain washdown and retrieval, or washes into the chain locker during heavy weather. Water accumulating in the chain locker sump is removed by a drainage eductor powered by the shipboard firemain system.

All Armed Forces vessels housing their anchor chains in lockers, except submarines, can generate this discharge. Since submarine chain lockers are always open to the sea, water is always present in the chain locker and there is no ''collected'' water to be discharged as effluent. Navy policy prohibits discharging chain locker effluent within 12 n.m. Other vessels of the Armed Forces are currently authorized to discharge chain locker effluent within 12 n.m.; however, most Armed Forces vessels also observe the 12 n.m. discharge prohibition. A recent review of practices on several Navy ships found no water accumulation in the chain locker sump, and the ships' crew confirmed that discharges of chain locker effluent occur outside 12 n.m.

In addition to water, materials collecting in the chain locker sump can include paint chips, rust, grease, and other debris. Chain locker effluent may contain organic and inorganic compounds associated with this debris, as well as metals from the sump and from sacrificial anodes installed in the chain locker to provide cathodic protection. If the anchor chain washdown is not performed and the chain locker effluent is subsequently discharged in a different port, the discharge could potentially transport nonindigenous species. Discharge volume will vary depending upon the frequency of anchoring operations, the number of anchors used, and the depth of water (which determines the amount of chain that will be lowered into the water).

Given the manner in which water collects in the chain locker sump and remains there for extended periods of time, it is possible that the discharge could contain elevated levels of metals at concentrations exceeding State water quality criteria. However, given the small volume of the discharge and the infrequency of anchoring operations, it is unlikely that discharges of chain locker effluent would adversely impact the environment. Nevertheless, the Navy and other Armed Forces already have management practices in place for most vessels requiring anchors and anchor chains to be washed down with seawater during retrieval, and prohibiting the discharge of chain locker effluent until beyond 12 n.m. from shore. DOD has chosen as a matter of policy to continue prohibiting the discharge of chain locker effluent within 12 n.m. from shore. This prohibition, while not considered necessary to mitigate an existing or potential adverse impact, will eliminate the possibility of discharging into coastal waters any metals, other contaminants, or nonindigenous aquatic species that may have accumulated in the chain locker sump. EPA and DOD have determined that the existing management practices demonstrate that it is reasonable and practicable to require use of a MPCD for chain locker effluent.

4. Clean Ballast

This discharge is composed of the seawater taken into, and discharged from, dedicated ballast tanks used to maintain the stability of the vessel and to adjust the buoyancy of submarines.

Many types of Armed Forces vessels store clean ballast in dedicated tanks in order to adjust a vessel's draft, buoyancy, trim, and list. Clean ballast may consist of seawater taken directly onboard into the ballast tanks or seawater received from the vessel's firemain system. Clean ballast differs from ''dirty ballast'' and ''compensated ballast'' discharges (described below) in that clean ballast is not stored in tanks that are also used to hold fuel. Many surface vessels introduce clean ballast into tanks to replace the weight of off-loaded cargo or expended fuel to improve vessel stability while navigating on the high seas. Amphibious ships also flood clean ballast tanks during landing craft operations to lower the ship's stern, allowing the well deck to be accessed. Submarines introduce clean ballast into their main ballast tanks when submerging, and introduce clean ballast into their variable ballast tanks to make minor adjustments to buoyancy, trim, and list while operating submerged or surfaced. The discharge occurs when fuel or cargo is taken on and the ballast is no longer needed, when amphibious operations are concluded and the vessel is returned to its normal operating draft, when submarines surface, or when submarines make some operational adjustments in trim or list while submerged or surfaced.

Clean ballast discharges are intermittent and can occur at any distance from shore, including within 12 n.m. Constituents of clean ballast can include materials from tank coatings (e.g., epoxy), chemical additives (e.g., flocculant chemicals or rust inhibitors), and metals from piping systems and sacrificial anodes used to control corrosion. Based on analytical data for firemain system discharges, metals expected to be present in the discharge include copper, nickel, and zinc. These data indicate that the pollutant

concentrations in the discharge may exceed State water quality criteria.

Previous studies have documented the potential of ballasting operations to transfer nonindigenous aquatic species into receiving waters. Ballast water potentially contains living microorganisms, plants, and animals that are native to the location where the water was pumped aboard. When the ballast water is transported to another port or coastal area and discharged, the surviving organisms are released and have the potential to invade and impact the local ecosystem.

The Navy, MSC, and Coast Guard either currently implement or are in the process of approving a ballast water management policy requiring open-ocean ballast water exchange, based on guidelines established by the International Maritime Organization (Guidelines for Preventing the Introduction of Unwanted Aquatic Organisms and Pathogens from Ships' Ballast Water and Sediment Discharge, 10 May 1995). These management practices demonstrate the availability of controls to mitigate the potential adverse environmental impacts from this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require a MPCD for discharges of clean ballast.

5. Compensated Fuel Ballast

This intermittent discharge is composed of the seawater taken into, and discharged from, tanks designed to hold both fuel and ballast water to maintain the stability of the vessel.

Compensated fuel ballast systems are configured as a series of fuel tanks that automatically draw in seawater to replace fuel as it is consumed. Keeping the fuel tanks full in this manner enhances the stability of a vessel by using the weight of the seawater to compensate for the mass of ballast lost through fuel consumption. During refueling, fuel displaces the seawater, and the displaced seawater is discharged overboard.

Compensated fuel ballast is discharged by approximately 165 Navy surface vessels and submarines. Surface ships with compensated fuel ballast systems discharge directly to surface waters each time they refuel. Surface vessels are refueled both inport and at sea. All at-sea refueling is accomplished beyond 12 n.m. from shore. For submarines, refueling occurs only in port and the compensated ballast is transferred to shore facilities for treatment and disposal.

The compensated fuel ballast discharge can contain acrolein, phosphorus, thallium, oil (and its constituents, such as benzene, phenol, and toluene), copper, mercury (a bioaccumulative chemical of concern), nickel, silver, and zinc. Concentrations of acrolein, benzene, copper, nickel, silver, and zinc can exceed acute Federal criteria or State acute water quality criteria. The compensated fuel ballast discharge can also contain nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen) in concentrations exceeding the most stringent State water quality criteria.

To reduce the discharge of fuel in compensated fuel ballast discharge, the Navy has instituted operational guidelines intended to reduce the potential for overfilling tanks or discharging excessive amounts of fuel entrained in the displaced compensating water while refueling surface vessels. These guidelines limit the amount of fuel that can be taken on in port (i.e., to prevent ''topping off'' the fuel tanks) and establish maximum allowable rates for inport refueling. Additionally, submarines transfer all compensated fuel ballast water to shore facilities when refueling diesel fuel oil tanks. These operational controls for surface vessel refueling and the practice of transferring the discharge to shore for submarines demonstrates the availability of MPCDs to mitigate potential adverse environmental impacts; therefore, EPA and DOD have determined it is reasonable and practicable to require the use of a MPCD for compensated fuel ballast.

6. Controllable Pitch Propeller Hydraulic Fluid

This discharge is the hydraulic fluid that discharges into the surrounding seawater from propeller seals as part of normal operation, and the hydraulic fluid released during routine maintenance of the propellers.

Controllable pitch propellers (CPP) are used to control a vessel's speed or direction while maintaining constant propulsion plant output (i.e., varying the pitch, or ''bite,'' of the propeller blades allows the propulsion shaft to remain turning at a constant speed). CPP blade pitch is controlled hydraulically through a system of pumps, pistons, and gears. Hydraulic oil may be released from CPP assemblies under three conditions: leakage through CPP seals, releases during underwater CPP repair and maintenance activities, or releases from equipment used for CPP blade replacement.

Over 200 Armed Forces vessels have CPP systems. Leakage through CPP seals can occur within 12 n.m., but seal leakage is more likely to occur while the vessel is underway than while pierside or at anchor because the CPP system operates under higher pressure when a vessel is underway. Blade replacement occurs inport on an as-needed basis when dry-docking is unavailable or impractical, resulting in some discharge of hydraulic oil. Approximately 30 blade replacements and blade port cover removals (for maintenance) are conducted annually, fleetwide.

CPP assemblies are designed to operate at 400 psi without leaking. Typical pressures while pierside range from 6 to 8 psi. CPP seals are designed to last five to seven years, which is the longest period between dry-dock cycles, and are inspected quarterly to check for damage or excessive wear. Because of the hub design and the frequent CPP seal inspections, leaks of hydraulic oil from CPP hubs are expected to be negligible. During the procedure for CPP blade replacement, however, hydraulic oil is released to the environment from tools and other equipment. In addition, hydraulic oil could also leak from the CPP hub during a CPP blade port cover removal.

The Navy's repair procedures impose certain requirements during blade replacement and blade port cover removal to minimize the amount of hydraulic oil released to the extent possible. In addition, booms are placed around the aft end of the vessel to contain possible oil release during these procedures. Nevertheless, EPA and DOD believe that the amount of hydraulic oil released during underwater CPP maintenance could create an oil sheen and exceed State water quality criteria. Constituents of the discharge could include paraffins, olefins, and metals such as copper, aluminum, tin, nickel, and lead. Metal concentrations are expected to be low because hydraulic oil is not corrosive, and the hydraulic oil is continually filtered to protect against system failures.

EPA and DOD have determined that pollution controls are necessary to mitigate the potential adverse environmental impacts that could result from releases of hydraulic oil during underwater maintenance on controllable pitch propellers. The existing repair procedures and the staging of containment booms and oil skimming equipment to capture released oil demonstrate the availability of MPCDs (i.e., best management practices) for this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require MPCDs to control discharges of CPP hydraulic fluid.

17. Deck Runoff

Deck runoff is an intermittent discharge generated when water from precipitation, freshwater washdowns, or seawater falls on the exposed portion of a vessel such as a weather deck or flight deck. This water is discharged overboard through deck openings and washes overboard any residues that may be present on the deck surface. The runoff drains overboard to receiving waters through numerous deck openings. All vessels of the Armed Forces produce deck runoff, and this discharge occurs whenever the deck surface is exposed to water, both within and beyond 12 n.m.

Contaminants present on the deck originate from topside equipment components and the many varied activities that take place on the deck. This discharge can include residues of gasoline, diesel fuel, Naval distillate fuel, grease, hydraulic fluid, soot, dirt, paint, glycol, cleaners such as sodium metasilicates, and solvents. A number of metal and organic pollutants may be present in the discharge, including silver, cadmium, chromium, copper, nickel, lead, benzene, ethylbenzene, toluene, xylene, polycyclic aromatic hydrocarbons, and phenol. Mass loadings and concentrations of these constituents will vary with a number of factors including ship operations, deck washdown frequency, and the frequency, duration, and intensity of precipitation events.

Based on the results from limited sampling from catapult troughs (a component of runoff from aircraft carrier flight decks), oil and grease, phenols, chromium, cadmium, nickel, and lead could be present in this discharge at levels exceeding acute Federal criteria and State acute water quality criteria. If not properly controlled, oil collecting in catapult troughs can cause deck runoff from aircraft carrier flight decks to create an oil sheen on the surface of the receiving water, which would violate State water quality criteria. Armed Forces vessels already institute certain management practices intended to reduce the amount of pollutants discharged in deck runoff, including keeping weather decks cleared of debris, immediately mopping up and cleaning spills and residues, and engaging in spill prevention practices. These practices demonstrate the availability of controls to mitigate adverse impacts from deck runoff. Therefore, EPA and DOD have determined it is reasonable and practicable to require a MPCD for deck runoff.

8. Dirty Ballast

This intermittent discharge is composed of the seawater taken into, and discharged from, empty fuel tanks to maintain the stability of the vessel. The seawater is brought into these tanks for the purpose of improving the stability of a vessel during rough sea conditions. Prior to taking on the seawater as ballast, fuel in the tank to be ballasted is transferred to another fuel tank or holding tank to prevent contaminating the fuel with seawater. Some residual fuel remains in the tank and mixes with the seawater to form dirty ballast. Dirty ballast systems are configured differently from compensated ballast and clean ballast systems. Compensated ballast systems continuously replace fuel with seawater in a system of tanks as the fuel is consumed. Clean ballast systems have tanks that carry only ballast water and are never in contact with fuel. In a dirty ballast system, water is added to a fuel tank after most of the fuel is removed.

Thirty Coast Guard vessels generate dirty ballast as a discharge incidental to normal vessel operations. These Coast Guard vessels do so because their size and design do not allow for a sufficient volume of clean ballast tanks. The larger of these vessels discharge the dirty ballast at distances beyond 12 n.m. from shore, while the smaller vessels are cutters that discharge the dirty ballast between 3 and 12 n.m. from shore. Coast Guard vessels monitor the dirty ballast discharge with an oil content monitor. If the dirty ballast exceeds 15 ppm oil, it is treated in an oil-water separator prior to discharge.

Expected constituents of dirty ballast are Naval distillate fuel or aviation fuel. Based on sampling results for compensated fuel ballast, which is expected to have similar constituents to dirty ballast, this discharge can contain oil (and its constituents such as benzene and toluene); biocidal fuel additives; metals such as copper, mercury (a bioaccumulative chemical of concern), nickel, silver, and zinc; and the pollutants acrolein, nitrogen (in the form of ammonia and total Kjeldahl nitrogen), and phosphorus.

Uncontrolled discharges of dirty ballast would be expected to exceed acute Federal criteria or State acute water quality criteria for oil, benzene, phenol, copper, nickel, silver, and zinc. Concentrations of nitrogen would be expected to exceed the most stringent State water quality criteria. The use of oil content monitors and oil-water separators to reduce the concentration of oil (and associated constituents) demonstrates the availability of MPCDs to control this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require the use of MPCDs to control discharges of dirty ballast.

9. Distillation and Reverse Osmosis Brine

This intermittent discharge is the concentrated seawater (brine) produced as a byproduct of the processes used to generate freshwater from seawater.

Distillation and reverse osmosis plants are two types of water purification systems that generate freshwater from seawater for a variety of shipboard applications, including potable water for drinking and hotel services, and high-purity feedwater for boilers. Distillation plants boil seawater, and the resulting steam is condensed into high-purity distilled water. The remaining seawater concentrate, or ''brine,'' that is not evaporated is discharged overboard. Reverse osmosis systems separate freshwater from seawater using semi-permeable membranes as a physical barrier, allowing a portion of the seawater to pass through the membrane as freshwater and concentrating the suspended and dissolved constituents in a saltwater brine that is subsequently discharged overboard.

Distillation or reverse osmosis systems are installed on approximately 540 Armed Forces vessels. This discharge can occur in port, while transiting to or from port, or while operating anywhere at sea (including within 12 n.m.). Distillation plants on steam-powered vessels may be operated to produce boiler feedwater any time a vessel's boilers are operating; however, operational policy limits its use in port for producing potable water because of the increased risk of biofouling from the water in harbors and the reduced demand for potable water. MSC steam-powered vessels typically operate one evaporator while in port to produce boiler feedwater; most diesel and gas-turbine powered MSC vessels do not operate water purification systems within 12 n.m.

Pollutants detected in distillation and reverse osmosis brine include copper, iron, lead, nickel, selenium, and zinc. The sampling data indicate that copper, lead, nickel and iron can exceed acute Federal criteria and State acute water quality criteria. The distillation and reverse osmosis brine discharge can also contain nitrogen (in the form of ammonia) and phosphorus in concentrations exceeding the most stringent State water quality criteria. The mass loadings of copper and iron are estimated to be significant. Thermal

effects modeling of distillation plant discharges indicates that the thermal plume does not exceed State water quality criteria.

Review of existing practices indicate that certain operational controls limiting the use of distillation plants and reverse osmosis units can reduce the potential for this discharge to cause adverse environmental impacts in some instances. Additionally, it appears that, for some vessels, reverse osmosis units may present an acceptable alternative to the use of distillation plants. Reverse osmosis units discharge brines are expected to contain lower concentrations of metals because these systems have non-metallic membranes and ambient operating temperatures, resulting in less system corrosion. Further analysis is necessary before determining whether distillation plants should be replaced by reverse osmosis units. Nevertheless, existing operational practices for distillation and reverse osmosis plants and the availability of reverse osmosis units to replace distillation units on some vessels demonstrates the availability of MPCDs to reduce the effects of this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require MPCD controls for discharges of distillation plant and reverse osmosis brines.

10. Elevator Pit Effluent

This discharge is the liquid that accumulates in, and is occasionally discharged from, the sumps of elevator wells on vessels. Most large surface ships have at least one type of elevator used to transport supplies, equipment, and personnel between different decks of the vessel. These elevators generally can be classified as either a closed design in which the elevator operates in a shaft, or an open design used to move aircraft between decks. Elevators operating in a shaft are similar to the conventional design seen in many buildings. For these elevators, a sump is located in the elevator pit to collect liquids entering the elevator and shaft areas. Deck runoff and elevator equipment maintenance activities are the primary sources of liquids entering the sump. On some vessels, the elevator sump is equipped with a drain to direct liquid wastes overboard. On others, piping is installed that allows an eductor to pump the pit effluent overboard. However, most vessels collect and containerize the pit effluent for disposal onshore or process it along with their bilgewater.

The elevators used on aircraft carriers to move aircraft and helicopters from one deck to another are an open design (i.e., there is no elevator shaft). The elevator platform is supported by cables and pulleys, and it operates on either the port or starboard side of the ship away from the hull. Unlike elevators with pits, the aircraft elevators are exposed to the water below and there are no systems in place for collecting liquid wastes.

Coast Guard, Army and Air Force vessels do not have elevators and therefore do not produce this discharge. The discharge of elevator pit effluent may occur at any location, within or beyond 12 n.m. from shore. Constituents in elevator pit effluent are likely to include grease, lubricating oil, fuel, hydraulic fluid, cleaning solvents, dirt, paint chips, aqueous film forming foam, glycol, and sodium metasilicate. The discharge can also contain nitrogen (measured as total Kjeldahl nitrogen) and metals from firemain water used to operate eductors draining the elevator pit.

The concentrations of copper, nickel, and bis(2-ethylhexyl)phthalate in firemain water (discussed below in section V.C.11) may exceed acute Federal criteria or State acute water quality criteria. The elevator pit effluent discharge can also contain nitrogen in concentrations exceeding the most stringent State water quality criteria. Constituent concentrations and mass loadings vary among ship classes depending on the frequency of elevator use, the size of the elevator openings, the amount and concentration of deck runoff, and the frequency of elevator equipment maintenance activities. Material accumulated in elevator pits is either collected for disposal onshore or directed to the bilgewater system for treatment through an oil-water separator prior to discharge. These existing practices demonstrate the availability of controls to reduce the potential for this discharge to cause adverse impacts on the environment. Therefore, EPA and DOD have determined that it is reasonable and practicable to require MPCDs for elevator pit effluent.

11. Firemain Systems

This discharge is the seawater pumped through the firemain system for firemain testing, maintenance, and training, and to supply water for the operation of certain vessel systems.

Firemain systems distribute seawater for firefighting and other services aboard ship. Firemain water is provided for firefighting through fire hose stations, sprinkler systems, and foam proportioners, which inject aqueous film forming foam (AFFF) into firemain water for distribution over flammable liquid spills or fire. Firemain water is also directed to other services including ballast systems, machinery cooling, lubrication, and anchor chain washdown. Discharges of firemain water incidental to normal vessel operations include anchor chain washdown, firemain testing, various maintenance and training activities, bypass flow from the firemain pumps to prevent overheating, and cooling of auxiliary machinery equipment (e.g., refrigeration plants). UNDS does not apply to discharges of firemain water that occur during firefighting or other shipboard emergency situations because they are not incidental to the normal operation of a vessel.

Firemain systems aboard Armed Forces vessels are classified as either wet or dry. Wet firemain systems are continuously charged with water and pressurized so that the system is available to provide water upon demand. Dry firemains are not continuously charged with water, and consequently do not supply water upon demand. Dry firemain systems are periodically tested and are pressurized during maintenance or training exercises, or during actual emergencies.

With the exception of small boats and craft, all Armed Forces vessels use firemain systems. All Navy surface ships and some MSC vessels use wet firemain systems. Submarines and all Army and Coast Guard vessels use dry firemains. Firemain system discharges occur both within and beyond 12 n.m. from shore. Flow rates depend upon the type, number, and operating time of the equipment and systems using water from the firemain system.

Samples were collected from three vessels with wet firemain systems and analyzed to determine the constituents present. Because of longer contact times between seawater and the piping in wet firemains, and the use of zinc anodes in some seachests and heat exchangers to control corrosion, pollutant concentrations in wet firemains are expected to be higher than those in dry firemain systems. Pollutants detected in the firemain discharge include nitrogen (measured as total Kjeldahl nitrogen), copper, nickel, iron, zinc, and bis(2-ethylhexyl)phthalate. The concentrations of iron exceeded the most stringent State chronic water quality criteria. Copper, nickel, and bis(2-ethylhexyl)phthalate concentrations exceeded both the chronic Federal criteria and State chronic water quality criteria. The concentrations of nitrogen exceeded the most stringent State water quality criteria. These concentrations contribute to a significant total mass loading in the discharge due to the large volume of

water discharged from wet firemain systems. Circulation through heat exchangers to cool auxiliary machinery increases the temperature of the firemain water, but the resulting thermal effects do not exceed State mixing zone criteria.

Firemain systems have a low potential for transporting nonindigenous aquatic species, primarily because the systems do not transport large volumes of water over great distances. In addition, stagnant portions of the firemain tend to develop anaerobic conditions which are inhospitable to most marine organisms.

EPA and DOD believe that dry firemain systems may offer one means for reducing the total mass of pollutants discharged from firemain systems. The use of dry firemains for Coast Guard vessels demonstrates that, for at least some types of vessels, this option may be an available control mechanism. Another possible MPCD option for achieving pollutant reductions is the use of alternative piping systems (i.e., different metallurgy) that provide lower rates of pipe wall corrosion and erosion. The use of dry firemains and the potential offered by alternative piping systems demonstrates the availability of controls to mitigate potential adverse impacts on the environment. Therefore, EPA and DOD have determined that it is reasonable and practicable to require the use of a MPCD for firemain systems.

12. Gas Turbine Water Wash

Gas turbine water wash consists of water periodically discharged while cleaning internal and external components of propulsion and auxiliary gas turbines. Approximately 155 Armed Forces vessels use gas turbines for either propulsion or auxiliary power generation. Gas turbine water wash is generated within 12 n.m. and varies by the type of gas turbine and the amount of time it is operated. Because the drain collecting system is limited in size, discharges may occur within 12 n.m. On most gas turbine Navy and MSC ships, gas turbine water wash is collected in a dedicated collection tank and is not discharged overboard within 12 n.m. On ships without a dedicated collection tank, this discharge is released as a component of deck runoff, welldeck discharges, or bilgewater.

Expected constituents of gas turbine water wash are synthetic lubricating oil, grease, solvent-based cleaning products, hydrocarbon combustion by-products, salts from the marine environment, and metals leached from metallic turbine surfaces. The concentration of naphthalene (from solvents) in the discharge is expected to exceed acute Federal criteria and State acute water quality criteria. Copper, nickel, and cadmium are also expected to be present in the discharge, but at concentrations below the acute Federal criteria and State acute water quality criteria. To limit the impacts of gas turbine water wash discharge while operating in coastal areas, most vessels direct the discharge to a dedicated holding tank for shore disposal. This containment procedure demonstrates the availability of controls for this discharge. Therefore, EPA and DOD have determined that it is reasonable and practicable to require the use of a MPCD for gas turbine water wash.

13. Graywater

Section 312(a)(11) of the CWA defines graywater as ''galley, bath, and shower water.'' Recognizing the physical constraints of Armed Forces vessels and the manner in which wastewater is handled on these vessels, graywater is more broadly defined for the purposes of UNDS. For the purposes of this proposed regulation, the graywater discharge consists of graywater as defined in CWA section 312(a)(11), as well as drainage from laundries, interior deck drains, water fountains and miscellaneous shop sinks. All ships, and some small boats, of the Armed Forces generate graywater on an intermittent basis. Graywater discharges occur both within and beyond 12 n.m. from shore. Most Armed Forces vessels collect graywater and transfer it to shore treatment facilities while pierside. Some vessel types, however, have minimal or no graywater collection or holding capability and discharge the graywater directly overboard while pierside.

Less than half of all graywater discharged within 12 n.m. occurs pierside from vessels lacking graywater collection holding capability. The remainder of the discharge in coastal waters occurs during transit within 12 n.m. from shore. Present in the discharge are several priority pollutants including mercury, which is a known bioaccumulative chemical of concern. Copper, lead, mercury, nickel, silver, and zinc were detected in concentrations that exceed acute Federal criteria and State acute water quality criteria. Graywater also contains conventional and nonconventional pollutants, such as total suspended solids, biochemical oxygen demand, chemical oxygen demand, oil, grease, ammonia, nitrogen, and phosphates. Due to the large volume of graywater generated each year, the mass loadings of these constituents may be significant. The use of containment systems to transfer graywater to shore treatment facilities demonstrates the availability of controls to mitigate adverse impacts on the environment. Therefore, EPA and DOD have determined that it is reasonable and practicable to require a MPCD to control graywater discharges.

14. Hull Coating Leachate

This discharge consists of constituents that leach, dissolve, ablate, or erode from hull paints into the surrounding seawater.

Vessel hulls that are continuously exposed to seawater are typically coated with a base anti-corrosive coating covered by an anti-fouling coating. This coating system prevents corrosion of the underwater hull structure and, through either an ablative (eroding or dissolving) or non-ablative (leaching) action, releases antifouling compounds. These compounds inhibit the adhesion of biological growth to the hull surface.

The coatings on most vessels of the Armed Forces are either copper- or tributyl tin (TBT)-based, with copper-based ablative paints being the most predominant coating system. The Armed Forces have been phasing out the use of TBT paints and now it is found only on approximately 10–20 percent of small boats and craft with aluminum hulls. Small boats and craft that spend most of their time out of water typically do not receive an anti-corrosive or anti-fouling coating.

Hull coating leachate is generated continuously whenever a vessel hull is exposed to water, within and beyond 12 n.m. from shore. Priority pollutants expected to be present in this discharge include copper and zinc. TBT is also expected to be present in this discharge for those vessels with TBT paint. The release rate of the constituents in hull coating leachate varies with the type of paint used, water temperature, vessel speed, and the age of the coating. Using average release rates derived from laboratory tests, the wetted surface area of each vessel, and the number of days the vessel is located within 12 n.m., EPA and DOD estimated the mass of copper, zinc, and TBT released in the leachate and concluded that the discharge has the potential to cause an adverse environmental effect.

Annual releases of TBT are expected to decrease since TBT coatings are being phased out by DOD and the Coast Guard. Both DOD and the commercial industry have conducted research on the use of advanced antifouling coatings such as easy release coatings (e.g., silicone) that resist biofouling when the vessel is in motion and a critical speed is reached. The combination of phasing out TBT paints, the potential to establish limits on copper release rates for copper-based coating systems, and

the potential for alternative coating systems to reduce copper discharges demonstrates the availability of controls to mitigate potential environmental impacts from hull coating leachate. Thus, EPA and DOD determined that it is reasonable and practicable to require use of a MPCD for hull coating leachate.

15. Motor Gasoline Compensating Discharge

This intermittent discharge consists of seawater taken into, and discharged from, motor gasoline tanks. Motor gasoline (MOGAS) is used to operate vehicles and equipment stored or transported on some Navy amphibious vessels. The MOGAS is stored in a compensating fuel tank system in which seawater is automatically added to fuel tanks as the gasoline is consumed in order to eliminate free space where vapors could accumulate. During refueling, gasoline displaces seawater from the tanks, and the displaced seawater is discharged directly overboard. A compensating system is used for MOGAS to provide supply pressure for the gasoline and to keep the tank full to prevent potentially explosive gasoline vapors from forming.

The Navy has two classes of vessels with MOGAS storage tanks. Eleven of these vessels are homeported in the U.S. Based on operational practices, vessels with MOGAS storage tanks typically refuel once per year, and the refuelings are always conducted in port. Therefore, all discharges from the MOGAS compensating system occur in port.

Seawater in the MOGAS compensating system is in contact with the gasoline for long periods of time. MOGAS discharges are expected to contain benzene, ethylbenzene, toluene, phenols, and naphthalenes at concentrations that exceed acute water quality criteria.

Specific operating procedures are followed when refueling MOGAS tanks to reduce the potential for discharging gasoline. These procedures require MOGAS tanks to be filled slowly and prohibit filling the tanks beyond 80 percent of the total tank capacity. Containment is placed around hose connections to contain any releases of gasoline, and containment booms are placed in the water around the vessel being refueled. Diffusers are used within the tanks to prevent entraining fuel into the discharged compensating water. These management practices demonstrate the availability of controls to mitigate potential adverse impacts to the environment. Therefore, EPA and DOD have determined that it is reasonable and practicable to require MPCDs for the MOGAS compensating discharge.

16. Non-Oily Machinery Wastewater

This intermittent discharge is composed of water leakage from the operation of equipment such as distillation plants, water chillers, valve packings, water piping, low- and high-pressure air compressors, and propulsion engine jacket coolers. The discharge is captured in a dedicated system of drip pans, funnels, and deck drains to prevent mixing with oily bilgewater. Only wastewater that is not expected to contain oil is collected in this system. Non-oily machinery wastewater from systems and equipment located above the waterline is drained directly overboard. Non-oily machinery wastewater from systems and equipment below the waterline is directed to collection tanks prior to overboard discharge.

Nuclear-powered Navy surface vessels and some conventionally-powered vessels have dedicated non-oily machinery wastewater systems. Most other Armed Forces vessels have no dedicated non-oily machinery wastewater system, so this type of wastewater drains directly to the bilge and is part of the bilgewater discharge.

Non-oily machinery wastewater is discharged in port, during transit, and at sea. This discharge is generated whenever systems or equipment are in use, and varies in volume according to ship size and the level of machinery use.

Pollutants, including copper, nickel, silver, and bis(2-ethylhexyl)phthalate were present in concentrations that exceed acute Federal criteria or State acute water quality criteria. Nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen) and total phosphorus were present in concentrations exceeding the most stringent State water quality criteria. Mercury (a bioaccumulative chemical of concern) was also detected, but at concentrations that did not exceed Federal or State water quality criteria. There was significant variability in sampling data, and flow rate data were insufficient for reliably estimating mass loadings for this discharge. System design changes to control the types and numbers of contributing systems and equipment, and implementation of management practices to reduce the generation of non-oily machinery wastewater are potential options for reducing the potential impact of this discharge on the environment. For this proposed rule, EPA and DOD have determined that it is reasonable and practicable to require MPCDs for non-oily machinery wastewater.

17. Photographic Laboratory Drains

This intermittent discharge is laboratory wastewater resulting from processing photographic film. Typical liquid wastes from these activities include spent film processing chemical developers, fixer-bath solutions and film rinse water.

Navy ship classes such as aircraft carriers, amphibious assault ships, and submarine tenders have photographic laboratory facilities, including color, black-and-white and x-ray photographic processors. The Coast Guard has two icebreakers with photographic and x-ray processing capabilities. The MSC has two vessels that have photographic processing equipment onboard, but the equipment normally is not operated in U.S. waters. Army, Air Force, and Marine Corps vessels do not use photographic equipment aboard their vessels and therefore do not produce this discharge.

Photographic laboratory wastes may be generated within and beyond 12 n.m. from shore, although current practice is to collect and hold the waste onboard within 12 n.m. The volume and frequency of the waste generation varies with a vessel's photographic processing capabilities, equipment, and operational objectives.

Expected constituents in photographic laboratory waste include acetic acid, aluminum sulfate, ammonia, boric acid, ethylene glycol, sulfuric acid, sodium acetate, sodium chloride, ammonium bromide, aluminum sulfate, and silver. Concentrations of silver can exceed acute Federal criteria and State acute water quality criteria; however, the existing data are insufficient to determine whether drainage from shipboard photographic laboratories has the potential to cause adverse environmental effects.

The Navy has adopted guidance to control photographic laboratory drains, including containerizing for onshore disposal all photographic processing wastes generated within 12 n.m., and is transitioning to digital photographic systems. The current handling practices and the availability of digital photographic systems demonstrates that MPCDs are available to mitigate potential adverse effects, if any, from photographic laboratory drains. Therefore, EPA and DOD have determined that it is reasonable and practicable to require use of a MPCD for this discharge.

18. Seawater Cooling Overboard Discharge

This discharge consists of seawater from a dedicated system that provides noncontact cooling water for other vessel systems. The seawater cooling system continuously provides cooling water to heat exchangers, removing heat from main propulsion machinery, electrical generating plants, and other auxiliary equipment. The heated seawater is discharged directly overboard. With the exception of some small, non-self-propelled vessels and service craft, all Armed Forces vessels discharge seawater from cooling systems. Typically, the demand for seawater cooling is continuous and occurs both within and beyond 12 n.m. from shore.

Seawater cooling overboard discharge contains trace materials from seawater cooling system pipes, valves, seachests, pumps, and heat exchangers. Pollutants detected in seawater cooling overboard discharge include copper, zinc, nickel, arsenic, chromium, lead, and nitrogen (in the form of ammonia, nitrates and nitrities, and total Kjeldahl nitrogen). Copper, nickel, and silver were detected in concentrations exceeding both the chronic Federal criteria and State chronic water quality criteria. Nitrogen was detected in concentrations exceeding the most stringent State water quality criteria. These concentrations contribute to a significant total mass released by this discharge due to the large volume of cooling water. In addition, thermal effects modeling indicate that some vessels may exceed State thermal mixing zone requirements. The seawater cooling water system has a low potential for transporting nonindigenous species, because the residence time for most portions of the system are short. However, a strainer plate is used to minimize the inflow of larger biota during system operation. The strainer plate is periodically cleaned using low pressure air or steam to dislodge any accumulated material. This procedure may result in releasing biota that have attached to the plate.

A potential MPCD option for achieving pollutant reductions is the use of alternative piping systems (i.e., different metallurgy) that provide lower rates of pipe wall corrosion and erosion. The potential substitution of materials demonstrates the availability of controls to mitigate potential adverse impacts on the environment. Based on this information, EPA and DOD have determined that it is reasonable and practicable to require use of a MPCD for this discharge.

19. Seawater Piping Biofouling Prevention

This discharge consists of the additives used to prevent the growth and attachment of biofouling organisms in seawater cooling systems on selected vessels, as well as the reaction byproducts resulting from the use of these additives. Aboard some vessels, active biofouling control systems are used to control biological fouling of surfaces within the seawater cooling systems. Generally, these active biofouling control systems are used when the cooling system piping does not have inherent antifouling properties (e.g., titanium piping). The most common seawater piping biofouling prevention systems include chlorination, chemical dosing, and anodic biofouling control systems. All three systems act to prevent fouling organisms from adhering to and growing on interior piping and components. Fouling reduces seawater flow and heat transfer efficiency. Chlorinators use electric current to generate chlorine and chlorine-produced oxidants from seawater. Anodic biofouling control systems use electric current to accelerate the dissolving of an anode to release metal ions into the piping system. Chemical dosing uses an alcohol-based chemical dispersant that is intermittently injected into the seawater system.

Twenty-nine Armed Forces vessels use active seawater piping biofouling control systems. Nine vessels use onboard chlorinators, 19 vessels use anodic biofouling control systems, and one vessel employs chemical dosing. Chlorinators operate on a preset schedule of intermittent operation, a few hours daily. Chemical dispersant dosing is performed for one hour every three days. Anodic systems normally operate continuously.

Seawater discharged from systems with active biofouling control systems is likely to contain residuals from the fouling control agent (chlorine, alcohol-based chemical additives, or copper), in addition to constituents normally found in cooling water. Based on modeling of the discharge plume, EPA and DOD estimate that receiving water concentrations of residual chlorine could exceed chronic Federal criteria and State chronic water quality criteria. Because of the large volume of seawater discharged from these systems, the resulting mass loading of chlorine released to the environment is considered significant.

Existing operational controls that limit the residual chlorine discharged to the environment demonstrate the availability of an MPCD to mitigate the potential for adverse impacts from this discharge. EPA and DOD have determined that it is reasonable and practicable to require a MPCD for seawater piping biofouling prevention systems.

20. Small Boat Engine Wet Exhaust

This discharge is the seawater that is mixed and discharged with small boat propulsion engine exhaust gases to cool the exhaust and quiet the engine. Small boats are powered by either inboard or outboard engines. Seawater is injected into the exhaust of these engines for cooling and to quiet engine operation. Constituents from the engine exhaust are transferred to the injected seawater and discharged overboard as wet exhaust.

Most small boats with engines generate this discharge. The majority of inboard engines used on small boats are two-stroke engines that use diesel fuel. The majority of outboard engines are two-stroke engines that use a gasoline-oil mixture for fuel. This discharge is generated when operating small boats. Due to their limited range and mission, small boats spend the majority of their operating time within 12 n.m. from shore.

Wet exhaust from outboard engines contains several constituents that can exceed acute Federal criteria or State acute water quality criteria including benzene, toluene, ethylbenzene, and naphthalene. Wet exhaust from inboard engines can contain benzene, ethylbenzene, and total polycyclic aromatic hydrocarbons (PAHs) that can exceed State water quality criteria. Mass loadings of these wet exhaust constituents are considered large. Potential MPCD options include replacing existing outboard engines with new reduced-emission outboard engines, and ensuring all new boats and craft have inboard engines with dry exhaust systems. Therefore, EPA and DOD have determined that it is reasonable and practicable to require use of a MPCD for small boat engine wet exhaust.

21. Sonar Dome Discharge

This discharge is generated by the leaching of antifoulant materials from the sonar dome material into the surrounding seawater and the discharge of seawater or freshwater from within the sonar dome during maintenance activities. Hull-mounted sonar domes house the electronic equipment used to navigate, detect, and determine the range to objects. Sonar domes are composed of either rubber impregnated with TBT anti-foulant, rubber without

TBT, steel, or glass-reinforced plastic, and are filled with freshwater and/or seawater to maintain their shape and internal pressure. The discharge is generated when materials leach from the exterior surface of the dome, or when water from inside the dome is pumped overboard to allow for periodic maintenance or repairs on the sonar dome or equipment housed inside the dome.

Only Navy and MSC operate vessels with sonar domes. Sonar domes are currently installed on approximately 225 vessels, including eight classes of Navy vessels and one class of MSC vessels. Sonar domes on MSC vessels are fiberglass and do not contain TBT.

The leaching of materials from the exterior surface of the dome is a continuous discharge and occurs both within and beyond 12 n.m. from shore. Discharges from the interior of the dome are intermittent and occur while the vessel is pierside as water inside the dome is removed to allow for periodic maintenance or repairs (approximately twice per year per dome).

Expected constituents of sonar dome water discharge are TBT, dibutyl tin, monobutyl tin, and metals such as copper, nickel, zinc, and tin. Based on sampling data in the record, concentrations of TBT, copper, nickel, and zinc can exceed acute Federal criteria or State acute water quality criteria, although fleetwide mass loadings of these constituents are not considered large (15 lbs/year of TBT, 23 lbs/year of copper, 11 lbs/year of nickel, and 122 lbs/year of zinc). Nevertheless, the Navy has instituted a program to install new sonar domes that do not have TBT-impregnated internal surfaces as existing domes require replacement. This practice demonstrates the availability of a control to mitigate potential adverse environmental impacts, if any, from sonar dome discharges. Therefore EPA and DOD have determined that it is reasonable and practicable to require a MPCD for sonar dome discharges.

22. Submarine Bilgewater

The submarine bilgewater discharge contains a mixture of wastewater and leakage from a variety of sources that are allowed to drain to the lowest inner part of the hull, known as the bilge. These sources can include condensed steam from steam systems, spillage from drinking fountains, valve and piping leaks, and evaporator dumps (i.e., evaporator water that fails to meet specifications for use). From the various collection points in the bilge, this bilgewater is transferred via an auxiliary drain system to a series of holding tanks. Most submarines have the capability to segregate oily wastewater from non-oily wastewater. The non-oily waste is discharged directly overboard and the oily wastewater is collected in a tank that allows gravity separation of the oil and water. The separated water phase is then discharged overboard, as needed, and the oil phase held onboard until it can be transferred to shore facilities for disposal.

This discharge is generated by all submarines, all of which are operated by the Navy. Approximately 60 of the submarines (the SSN 688 class) discharge the separated water phase from the bilgewater collection tanks within and beyond 12 n.m. from shore. The remaining submarines generally hold all bilgewater onboard until they are beyond 50 n.m. from shore. The frequency and volume of the discharge is highly variable, depending upon crew size, operating depth, and equipment conditions.

Sampling conducted onboard submarines showed concentrations of cadmium, chlorine, copper, cyanide, heptachlor, heptachlor epoxide, mercury (a bioaccumulative chemical of concern), nickel, oil, phenol, silver, and zinc that exceeded acute Federal criteria or State acute water quality criteria. Submarines use gravity separation to reduce the concentration of oil in bilgewater prior to discharge; however, this method apparently does not consistently produce a discharge that meets water quality criteria. The adequacy of existing gravity separation treatment to provide effective environmental protection will be addressed by the Phase II rulemaking. The nature of this discharge is such that submarine bilgewater, if untreated, could potentially impact the environment. Because of this potential to cause adverse environmental impacts, coupled with the demonstration that pollution controls are available to reduce the oil content of the discharge, EPA and DOD have determined that it is reasonable and practicable to require the use of a MPCD for submarine bilgewater.

23. Surface Vessel Bilgewater/OWS Discharge

The surface vessel bilgewater/OWS discharge consists of a mixture of wastewater and leakage from a variety of sources that are allowed to drain to the lowest inner part of the hull, known as the bilge. The sources of surface vessel bilgewater are generally similar to those discussed above for submarines. An additional source of bilgewater for surface vessels is water from the continual blowdown of boilers (i.e., boiler blowdown). On surface vessels, bilgewater is usually transferred to an oily waste holding tank, where it is stored for shore disposal or treated in an oil-water separator (OWS) to remove oil before being discharged overboard. Some vessels also have an oil content monitor (OCM) installed downstream from the OWS to monitor bilgewater oil content prior to discharge. Vessels with OCMs have the capability to return bilgewater not meeting a preset oil concentration limit to the OWS for reprocessing until the limit is met. Oil collected from the OWS separation process is held in a waste oil tank until transferred to shore facilities for disposal.

All vessels of the Armed Forces produce bilgewater and most of the larger vessels have OWS systems. Small craft bilgewater is collected and transferred to shore facilities while pierside.

Bilgewater accumulates continuously; however, vessels of the Armed Forces do not discharge untreated bilgewater. Under current policy, bilgewater treated by an OWS can be discharged as needed within 12 n.m., while untreated bilgewater is held for transfer to a shore facility for treatment. For vessels with an OWS and OCM, oil concentrations in the treated bilgewater must be less than 15 ppm prior to overboard discharge.

Sampling data for OWS effluent show oil, copper, iron, mercury (a bioaccumulative chemical of concern), nickel, and zinc exceed acute Federal criteria or State acute water quality criteria. Sampling data also show concentrations of nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen) and phosphorus exceed the most stringent State water quality criteria. The estimated mass loading for oil is considered to be large.

The existing policies prohibiting the discharge of untreated bilgewater, and the extensive use of oil-water separators and oil content monitors demonstrate the availability of pollution controls for bilgewater. The data in the record indicate that untreated bilgewater would likely cause adverse environmental impacts. Therefore, EPA and DOD have determined that it is reasonable and practicable to require the use of a MPCD for this discharge.

24. Underwater Ship Husbandry

The underwater ship husbandry discharge is composed of materials discharged during the inspection, maintenance, cleaning, and repair of hulls and hull appendages performed while the vessel is waterborne. Underwater ship husbandry includes activities such as hull cleaning,

fiberglass repair, welding, sonar dome repair, propulsor lay-up, non-destructive testing, masker belt repairs, and painting operations.

Underwater ship husbandry discharge is created occasionally by all Navy surface ships and submarines, and some Coast Guard vessels. These ship husbandry operations are normally conducted pierside. Of the underwater ship husbandry operations, only underwater hull cleaning and propulsor (i.e., propeller) lay-up have the potential for causing an adverse environmental effect. Underwater hull cleaning is conducted by divers using a mechanical brush system. Copper and zinc are released during cleaning in concentrations that exceed acute Federal criteria and State acute water quality criteria and produce a significant mass loading of constituents. The copper and zinc in this discharge originate from the anti-fouling and anticorrosive hull coatings applied to vessels. Data from commercial vessels indicate that underwater hull cleaning also has the potential to transfer nonindigenous aquatic species. Propulsor lay-up requires the placement of a vinyl cover over the propulsor to reduce fouling of the propulsor when the vessel is in port for extended periods. Chlorine-produced oxidants are generated from impressed current cathodic protection systems and can build up within the cover to levels exceeding State water quality criteria. However, discharges from this operation, as well as other ship husbandry operations (excluding hull cleaning) are infrequent and small in terms of volume or mass loading.

The Navy has established policies to minimize the number of hull cleanings, based on the degree to which biological fouling has occurred. In addition, the Navy has established procedures to use the least abrasive cleaning equipment necessary as a means for reducing the mass of copper and zinc in the discharge. These practices represent available controls to mitigate adverse impacts from underwater ship husbandry operations, and EPA and DOD have determined that it is reasonable and practicable to require the use of a MPCD to control this discharge.

25. Welldeck Discharges

This discharge is the water that accumulates from the seawater flooding of the docking well (welldeck) of a vessel used to transport, load, and unload amphibious vessels, and from the maintenance and freshwater washings of the welldeck and equipment and vessels stored in the welldeck.

Amphibious operations by the Armed Forces require transport of vehicles, equipment, and personnel between ship and shore on landing craft. The landing craft are stored in a docking well, or welldeck, of some classes of amphibious warfare ships. To load or unload landing craft, amphibious warfare ships may need to flood the welldeck by taking on ballast water and sinking the aft (rear) end of the ship. Water that washes out of the welldeck contains residual materials that were on the welldeck prior to flooding. Other welldeck discharges are created by routine operations such as washing equipment and vehicles with potable water, washing the gas turbine engines of air-cushion landing craft (LCACs) in the welldeck with mild detergents, and graywater from stored utility landing craft (LCUs). Additionally, the U.S. Department of Agriculture (USDA) requires washing welldecks, vehicle storage areas, and equipment upon return from overseas locations. The washing is required to ensure that there is no inadvertent transport of nonindigenous species to land. USDA-required washes of welldecks and vehicle storage areas occur pierside, while vehicles and equipment are washed onshore in a USDA-designated area. Effluent from these activities drain to unflooded welldecks and are discharged directly overboard.

The Navy is the only branch of the Armed Forces with ships having welldecks. Thirty-three amphibious warfare ships produce this discharge, which is released both within and beyond 12 n.m. from shore.

Depending upon the specific activities conducted, welldeck discharges contain a variety of residual constituents, including oil and grease, ethylene glycol (antifreeze), chlorine, detergents/cleaners, metals, solvents, and sea-salt residues. The volume of welldeck washout varies depending upon the type of landing craft to be loaded or unloaded. The greatest volume of welldeck discharge occurs when LCUs are being loaded into, or unloaded from the welldeck. Loading and unloading of LCACs does not require the welldeck to be flooded. Instead, a small ''surge'' of water enters the ship during these operations. Constituent concentrations in welldeck washout are expected to be low due to dilution in the large volume of water discharged, and because of general housekeeping procedures which require containment and cleanup of spills on the welldeck.

Other discharges from the welldeck include vehicle and craft washwater, gas turbine engine washes, and USDA washes. Constituents of these discharges are expected to be identical to those in welldeck washout. Of the various welldeck discharges, gas turbine water washes and USDA washes may result in hydrocarbon, chlorine, or metal concentrations that exceed acute water quality criteria. In addition, there is a potential for nonindigenous species to be introduced from USDA-required welldeck washes, although it should be noted that the viability of any species introduced is questionable since they generally would have been exposed to air for extended periods of time prior to their introduction into U.S. coastal waters (i.e., for the most part, these species would have been removed from vehicles and deck surfaces and thus it would not be a water-to-water transfer, in contrast to species transfers from ballast water systems).

Existing practices for containment and cleanup of welldeck spills demonstrate the availability of controls to reduce contamination of welldeck discharges and the potential for causing adverse environmental impacts (e.g., oil sheens). EPA and DOD have determined that it is reasonable and practicable to require a MPCD for welldeck discharges.

D. Discharges That Do Not Require Use of a MPCD

For the reasons discussed below, EPA and DOD have determined that it is not reasonable and practicable to require the use of a MPCD to control 14 discharges incidental to the normal operation of Armed Forces vessels. Based on the information in the record, these discharges have a low potential to adversely affect the environment by introduction of chemical constituents, thermal pollution, bioaccumulative chemicals of concern, or nonindigenous species.

As discussed below, in some cases, the concentration of one or more constituents in the undiluted discharge exceed water quality criteria at the point of discharge. However, such discharges occur in low volumes or infrequently. In all of these instances, either the pollutant concentration in the discharge plume quickly falls below water quality criteria once the dilution effect of mixing zones is taken into account, or the low mass loading of the discharge is unlikely to adversely affect the environment.

EPA and DOD have determined that it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for the discharges listed in Table 2 of this preamble and discussed below in this section. These discharges would not require control, and no control standards will be set for them, in Phase

II of UNDS development. Upon promulgation of the final Phase I rule, States and their political subdivisions would be prohibited from adopting or enforcing any statute or regulation to control these discharges, except by establishing no-discharge zones (see section VI.C of this preamble). Following promulgation of the final Phase I rule, States can petition EPA and DOD to review the determination not to require MPCDs for these discharges using the procedures set forth in proposed 40 CFR 1700.11 and 1700.12.

The discussion below provides a brief description of the discharges and the systems that produce the discharge and highlights the most significant constituents released to the environment and other characteristics of the discharge. A more detailed discussion of these discharges is presented in Appendix A of the Technical Development Document.

1. Boiler Blowdown

This discharge is the water and steam discharged during the blowdown of a boiler or steam generator, or when a safety valve is tested. Boilers are used to produce steam for propulsion and a variety of auxiliary and hotel services. Water supplied to the boiler system (feedwater) is treated with chemicals to inhibit corrosion and the formation of scale in the boiler and boiler system piping. Periodically, water must be removed from the boiler to control the buildup of particulates, sludge, and treatment chemical concentrations. The term ''blowdown'' refers to the minimum discharge of boiler water required to prevent the buildup of these materials in the boiler to levels that would adversely affect boiler operation and maintenance. There are four types of boiler blowdown procedures employed on Armed Forces vessels: (1) surface blowdowns for removing materials dissolved in the boiler water and for controlling boiler water chemistry; (2) scum blowdowns for removing surface scum; (3) bottom blowdowns for removing sludge that settles at the bottom of boilers; and (4) continuous blowdowns for removing dissolved metal chelates and other suspended matter. The type of blowdown used is a function of the boiler water chemistry and thus varies among vessel classes. With the exception of continuous blowdowns, boiler blowdowns are discharged below the vessel waterline. Continuous blowdowns are discharged inside the vessel and are directed to the bilge. These are addressed as part of the surface vessel bilgewater/OWS discharge (see section V.C.23 of this preamble). Another discharge occurs during periodic testing of steam generator safety valves on nuclear-powered vessels. The safety valve discharge is a short-duration release of steam below the vessel waterline.

Approximately 360 surface vessels and submarines discharge boiler blowdowns directly to receiving waters. These blowdowns occur both within and beyond 12 n.m. from shore. Nuclear-powered ships perform steam generator safety valve testing only in port once every five years.

Boiler blowdown is discharged intermittently in small volumes (approximately 300 gallons per discharge), at high velocities (over 400 feet per second), and at elevated temperatures (over 325 degrees Fahrenheit). Boiler water treatment chemicals used by Armed Forces vessels include ethylenediamine-tetraacetic acid (EDTA), hydrazine, sodium hydroxide, and disodium phosphate. Sampling data for boiler blowdowns indicate the presence of nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen), phosphorus, hydrazine, iron, bis(2-ethylhexyl)phthalate, antimony, arsenic, cadmium, chromium, copper, lead, nickel, selenium, thallium, and zinc. Boiler blowdown discharges from conventionally-powered boilers exceed Federal criteria and State water quality criteria for copper, nickel, and zinc, and the most stringent State water quality criteria for nitrogen, phosphorus, iron, and lead. Blowdown discharges from nuclear-powered steam generators exceed acute Federal criteria and State acute water quality criteria for copper, and the most stringent State acute water quality criteria for lead and nickel. For nitrogen and phosphorus, the most stringent State water quality criteria was exceeded. However, the turbulent mixing resulting from the high velocity discharge, and the relatively small volume of the boiler blowdown causes pollutant concentrations to rapidly dissipate to background levels or below acute Federal criteria and State acute water quality criteria within a short distance from the point of discharge. Based on thermal modeling of the discharge plume, boiler blowdowns are not expected to exceed State standards for thermal effects. Thermal effects from safety valve testing are substantially less than that from blowdowns, thus safety valve testing also will not exceed State standards for thermal effects. Annual fleetwide pollutant discharges from boiler blowdowns within 12 n.m. are estimated at 3,036 pounds per year of phosphorus, 513 pounds/year of nitrogen, less than 11 pounds of copper, less than 2 pounds of lead, approximately 10 pounds of nickel, and less than 12 pounds of zinc. The fleetwide discharge of all pollutants from safety valve testing is less than 5 pounds/year. While the pollutant concentrations in the boiler blowdown discharges exceed acute Federal criteria and State acute water quality criteria, they are discharged intermittently and in small volumes. Further, these discharges are distributed throughout the U.S. at Armed Forces ports, and each individual port receives only a fraction of the total fleetwide mass loading. Based on the information in the record regarding the low mass of pollutants discharged during boiler blowdowns and safety valve discharges, and the manner in which the discharges take place, there is a low potential for causing adverse environmental impacts. Therefore, EPA and DOD have concluded that it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

2. Catapult Wet Accumulator Discharge

This discharge is the water discharged from a catapult wet accumulator, which stores a steam/water mixture for launching aircraft from an aircraft carrier.

The steam used as the motive force for operating the catapults for launching aircraft is provided to the catapult from a steam reservoir, referred to as the catapult wet accumulator. The catapult wet accumulator is a pressure vessel containing a steam/water mixture at a high temperature and pressure. The accumulator is fed an initial charge of boiler feedwater and provided steam from boilers. As steam is released from the accumulator for the catapult launch, the pressure reduction in the accumulator allows some of the water to flash to steam, providing additional steam to operate the catapult. During operation of the system, steam condenses in the accumulator and causes the water level in the accumulator to gradually rise. Periodic blowdowns of the accumulator are required to maintain the water level within operating limits. This steam/water mixture released during the blowdown is discharged below the vessel waterline. In addition to blowdowns required during catapult operation and testing, wet accumulators are emptied prior to major maintenance of the accumulator or when a carrier will be in port for more than 72 hours. When emptying the accumulator, multiple blowdowns are performed over an extended period (up to 12 hours) to

reduce pressure prior to draining the tank.

The Navy is the only branch of the Armed Forces with vessels generating this discharge. Eleven of the aircraft carriers are homeported in the United States.

Wet accumulator blowdowns are performed during flight operations, which occur beyond 12 n.m., and during catapult testing, which occurs within 12 n.m. from shore. Wet accumulators are emptied outside 12 n.m. when returning to port for accumulator maintenance or when the carrier will be in port for more than 72 hours. If catapult testing is conducted in port, and the carrier will remain in port for more than 72 hours following the testing, the accumulator will be emptied in port.

Catapult wet accumulator blowdowns have little potential for causing adverse environmental impacts because of the low pollutant loadings and thermal effects of this discharge. Because boiler feedwater is used for the initial charge of water to an empty accumulator, the constituents of the discharge include water treatment chemicals present in boiler feedwater. These chemicals include EDTA, disodium phosphate, and hydrazine. During normal operation, the boiler feedwater chemicals are diluted by the supplied steam. Additional constituents present in the blowdowns originate from the steam provided to the accumulator. Based on sampling data for steam condensate (a similar discharge discussed below in section V.D.10) and the volume of wet accumulator blowdowns performed within 12 n.m., the combined mass loading for all metals is estimated at less than 0.01 pounds per year. Constituents found in steam condensate include antimony, arsenic, benzidine, bis(2-ethylhexyl)phthalate, cadmium, copper, nickel, nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen), phosphorus, selenium, thallium, and zinc. The concentrations of benzidine, copper, and nickel in steam condensate were found to exceed acute Federal criteria and State acute water quality criteria. The concentration of bis(2-ethylhexyl)phthalate was found to exceed State acute water quality criteria. The concentrations of nitrogen and phosphorus were found to exceed the most stringent State water quality criteria. However, using steam condensate data may overestimate wet accumulator pollutant concentrations because of the shorter contact time between catapult steam and its associated piping system (resulting in less opportunity to entrain corrosion products from the piping). Based on thermal modeling of the discharge plume, catapult wet accumulator blowdowns are not expected to exceed State standards for thermal effects.

Catapult wet accumulator blowdowns have little potential for causing adverse environmental impacts because of the very low pollutant mass loadings in this discharge and because of the low thermal effects from this discharge. Therefore, EPA and DOD determined that it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

3. Cathodic Protection

This discharge consists of the constituents released into the surrounding water from sacrificial anodes or impressed current cathodic protection systems used to prevent hull corrosion.

Steel-hulled vessels require corrosion protection. In addition to anti-corrosion hull paints, these vessels employ cathodic protection which is provided by either sacrificial anodes or Impressed Current Cathodic Protection (ICCP) systems. The most common cathodic protection system for vessels of the Armed Forces is the zinc sacrificial anode, although a few submarines use aluminum anodes. With the sacrificial anode system, zinc or aluminum anodes attached to the hull will preferentially corrode from exposure to the seawater and thereby minimize corrosion of the vessel's hull.

In ICCP systems, the vessel's electrical system passes a current through inert platinum-coated anodes. This current protects the hull in a manner similar to sacrificial anodes by generating current as the anodes corrode. Depending on the type of cathodic protection used, the discharge will include either zinc or aluminum from sacrificial anodes, or chlorine-produced oxidants (CPO) from ICCP systems.

Approximately 1,800 large Armed Forces vessels use cathodic protection. Of these, nearly 270 have ICCP systems, fewer than five use aluminum sacrificial anodes, and the remaining use zinc sacrificial anodes. The discharge is continuous while the vessel is waterborne and occurs both within and beyond 12 n.m. from shore.

EPA and DOD modeled the discharge from cathodic protection systems to determine the range of constituent concentrations that could be expected in the water surrounding a vessel. This discharge is best described as a mass flux of reaction byproducts emanating from the electro-chemical reaction that occurs at the anodes. Two separate modeling techniques were used for both sacrificial anodes and ICCP systems. The first technique was a dilution model for harbors that takes into account the number of homeported vessels and harbor-specific volume and tidal flow information. Three Navy ports were modeled, representing a range of port sizes. The resulting constituent concentrations calculated for the three ports in this dilution model were below chronic Federal criteria and State chronic water quality criteria.

The second technique modeled mixing zones around a vessel using calculations for a hull size typical of vessels using cathodic protection systems. The mixing model results indicate that a mixing zone of five feet for CPO and 0.5 feet for zinc results in concentrations below the chronic Federal criteria or State chronic water quality criteria. For vessels with aluminum anodes, a mixing zone of less than 0.1 feet achieves concentrations below chronic Federal criteria and State chronic water quality criteria. Concentrations of mercury will be 1,000 times lower than the acute State water quality criteria and 35 times lower than the chronic criteria. The total amount of mercury discharged from aluminum anodes on all Armed Forces vessels is estimated to be less than 0.001 pounds annually.

For ICCP calculations, the modeling is based on an assumption that 100 percent of the supplied electrical current results in CPO generation. Less CPO is actually expected to be generated because the efficiency of the chlorine generation process is known to be less than 100 percent. In addition, using the generation rate alone does not account for the rapid decay of CPO in water through chemical reactions involving CPO, which occur within minutes.

The dilution and mixing zone modeling performed for this discharge indicates that cathodic protection has a low potential for causing adverse impacts on the marine environment. Therefore, EPA and DOD determined that it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

4. Freshwater Lay-up

This discharge is the potable water that is periodically discharged from the seawater cooling system while the vessel is in port, and the cooling system is in a lay-up mode.

Seawater cooling systems are used onboard some Armed Forces vessels to remove heat from main propulsion machinery, electrical generating plants

and other auxiliary equipment. These are single-pass, non-contact cooling systems whereby the seawater enters the hull, is pumped through a piping network and circulated through one or more heat exchangers, then exits the vessel. On certain vessels, the seawater cooling systems are placed in a stand-by mode, or lay-up, when the machinery is not in use. The lay-up is accomplished by blowing the seawater from the condenser with low-pressure air. The condenser is then filled with potable water and drained again to remove residual seawater as protection against corrosion. Then, the condenser is refilled with potable water for the actual lay-up. After 21 days, the lay-up water is discharged overboard and the condenser refilled. The condenser is discharged and refilled on a 30-day cycle thereafter. The volume of each condenser batch discharge is approximately 6,000 gallons.

The Navy is the only branch of the Armed Forces with vessels discharging freshwater lay-up. All submarines generate this discharge, which only occurs while in port. Eight aircraft carriers also lay-up their condensers; however, these condensers are drained to the bilge and the water is handled as bilgewater. Generally, the cooling system is only placed in a lay-up condition if the vessel remains in port for more than three days and the main steam plant is shut down.

Sampling data for submarine freshwater lay-up indicate the presence of chlorine, nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen), and the priority pollutants chromium, copper, lead, nickel, and zinc. The concentrations of chlorine, copper, nickel, and zinc can exceed acute Federal criteria or State acute water quality criteria. For nitrogen and total phosphorus, the most stringent State water quality criteria was exceeded. Chlorine was detected in the initial flush discharge, but was not found in the extended lay-up discharge. Mass loadings for the priority pollutants (copper, nickel, and zinc) were estimated using total annual discharge volumes and average pollutant concentrations. The total mass loading from all discharges of freshwater lay-up from submarines is estimated at 7 lbs/yr of copper, 36 lbs/yr of nickel, and 29 lbs/yr of zinc. The mass discharge from any individual freshwater lay-up discharge event would be a fraction of that total. Because of the low total annual mass loading, the low frequency at which the discharge occurs, and the volume of an individual discharge event, discharges of freshwater lay-up have a low potential for causing adverse environmental impacts. Therefore, EPA and DOD determined that it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

5. Mine Countermeasures Equipment Lubrication

This discharge consists of the constituents released into the surrounding seawater by erosion or dissolution from lubricated mine countermeasures equipment when the equipment is deployed or towed. Various types of mine countermeasures equipment are deployed and towed behind vessels to locate and destroy mines. Lubricating grease and oil applied to this equipment can be released into surrounding seawater during its deployment and use, including during training exercises.

The Navy is the only branch of the Armed Forces with a mine countermeasures mission. The Navy uses two classes of vessels, totaling 23 ships, to locate, classify, and destroy mines. The discharge is generated during training exercises, which are normally conducted between 5 and 12 n.m. from shore. Depending on the class of vessel and the type of mine countermeasures equipment being used, the number of training exercises conducted by each vessel ranges from 6 to 240 per year.

Using estimates of the amount of lubricant released during each training exercise, EPA and DOD calculated the annual mass loading of lubricant discharges to be approximately 770 pounds of grease and oil. Using the estimates of the pollutant mass loading released during an exercise, and the volume of water through which the countermeasures equipment is towed or operated during an exercise, EPA and DOD estimated the oil and grease concentrations resulting from mine countermeasures training exercises. These estimated concentrations of oil and grease in the receiving water range from 0.0002 to 7.1 µg/l and do not exceed acute water quality criteria.

An additional calculation was performed for the lift cable for the SLQ–48 mine neutralization vehicle (MNV). This lift cable is lubricated with grease; however, the cable is not towed through the water and is only used to deploy or recover the MNV while a vessel is stationary. Using the maximum predicted release of 0.15 ounces of grease per deployment, modeling results indicate that the grease released from the lift cable would disperse in the surrounding receiving waters and be at concentrations below the most stringent State acute water quality criteria within 3 to 5 feet from the cable.

Most discharges from mine countermeasures equipment occur while vessels are underway and the pollutants are quickly dispersed in the environment due to the turbulent mixing conditions caused by the wake of the vessel and towed equipment. Further, these discharges take place beyond 5 n.m. from shore in waters with significant wave energy, allowing for rapid and wide dispersion of the releases. The manner in which these releases occur, coupled with the relatively small amounts of lubricants released, results in this discharge having a low potential for causing adverse impacts on the marine environment. Therefore, EPA and DOD determined that it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for the mine countermeasures equipment lubrication discharge.

6. Portable Damage Control Drain Pump Discharge

This discharge consists of seawater pumped through the portable damage control drain pump and discharged overboard during periodic testing, maintenance, and training activities.

Portable damage control (DC) drain pumps are used to remove water from vessel compartments during emergencies or provide seawater for shipboard firefighting in the event water is unavailable from the firemain system. The types of pumps used are described in section V.D.7, Portable Damage Control Drain Pump Wet Exhaust. Discharges from drain pumps being used during onboard emergencies are not incidental to normal vessel operations, and therefore are not within the scope of this proposed rule. These pumps are, however, periodically operated during maintenance, testing, and training, and pump discharges during these activities are within the scope of this rule. To demonstrate that the pumps are functioning properly, the suction hose is hung over the side of the vessel and the pump operated to verify that the pump effectively transfers the seawater or harbor water. This pump effluent is discharged directly overboard during this testing.

All large ships and selected boats and craft of the Armed Forces generate this discharge. As part of equipment maintenance, testing, and training, the pumps are operated both within and beyond 12 n.m. from shore. Navy , Army, and MSC vessels operate portable DC drain pumps for approximately 10 minutes per month and an additional 15

minutes per year to demonstrate working order and condition. Coast Guard vessels operate their portable DC drain pumps for approximately 30 minutes per month for maintenance and testing.

This discharge consists of seawater/harbor water that only briefly passes through a pumping process. The drain pump discharge is unlikely to cause adverse impacts because the water has a residence time of less than five seconds in the pump and associated suction and discharge hoses, and no constituents are expected to be added to the seawater/harbor water. Therefore, EPA and DOD determined it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

7. Portable Damage Control Drain Pump Wet Exhaust

This periodic discharge is seawater that has mixed and been discharged with portable damage control drain pump exhaust gases to cool the exhaust and quiet the engine.

Portable, engine-driven pumps provide seawater for shipboard firefighting in the event water is unavailable from the firemain. Two models of these portable damage control (DC) drain pumps are used: P–250 and P–100. The P–250 pumps operate on gasoline injected with oil-based lubricants. Part of the seawater output from these pumps is used to cool the engine and quiet the exhaust. This discharge, termed wet exhaust, is typically routed overboard through a separate exhaust hose and does not include the main discharge of the pump which is classified separately as Portable Damage Control Drain Pump Discharge.

Fuel residuals, lubricants, or their combustion byproducts are present in P–250 engine exhaust gases, condense in the cooling water stream, and are discharged as wet exhaust. The P–100 model operates on diesel fuel. Although the engine that drives the P–100 pump is air-cooled and no water is injected into the exhaust of the pump, a small amount of water contacts the engine during pump priming. Up to one-seventh of a gallon of water may be discharged during each priming event. This water discharged during P–100 priming is considered part of the portable DC drain pump wet exhaust.

The Navy operates approximately 910 drain pumps, the MSC approximately 140 drain pumps, and the Coast Guard approximately 370 drain pumps.

Portable DC drain pump wet exhaust discharges occur during training and monthly planned maintenance activities both within and beyond 12 n.m. from shore. During monthly maintenance activities, the pumps are run for approximately 10 to 30 minutes. The use of portable DC drain pumps during onboard emergencies is not incidental to normal operations, and therefore not within the scope of this proposed rule.

Based on data in the record, the wet exhaust discharge is likely to include metals, oil and grease, and volatile and semi-volatile organic compounds. The concentrations of copper, lead, nickel, silver, zinc, and iron in portable DC drain pump wet exhaust can exceed acute Federal criteria and State acute water quality criteria. Concentrations of oil and grease, benzene, toluene, ethylbenzene, and napthalene can exceed State acute water quality criteria. Concentrations of these constituents in receiving waters are not expected to exceed water quality criteria because they will dissipate quickly since the mass loadings per discharge event are small and the discharge locations are dispersed fleetwide. The discharge from each of the 500 P–250 pumps occurs separately at different discharge locations. On average, each P–250 pump discharges less than 0.3 pounds of pollutants per discharge event. The duration of each discharge is short, averaging less than 30 minutes. These factors allow the pollutants to dissipate rapidly. Based on this information, the portable DC drain pump wet exhaust is expected to have a low potential for exhibiting adverse environmental impacts on the marine environment. Therefore, EPA and DOD determined it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for this discharge.

8. Refrigeration and Air Conditioning Condensate

This discharge is the drainage of condensed moisture from air conditioning units, refrigerators, freezers, and refrigerated spaces. Refrigerators, refrigerated spaces, freezers, and air conditioning (AC) units produce condensate when moist air contacts the cold evaporator coils. This condensate drips from the coils and collects in drains. Condensate collected in drains above the vessel waterline is continuously discharged directly overboard. Below the waterline, condensate is directed to the bilge, non-oily machinery wastewater system, or is retained in dedicated holding tanks prior to periodic overboard discharge.

Approximately 650 Navy, MSC, Coast Guard, Army, and Air Force vessels produce this discharge. The condensate may be discharged at any time, both within and beyond 12 n.m. from shore.

Condensate flow rates depend on air temperature, humidity, and the number and size of cooling units per vessel. The discharge can contain cleaning detergent residuals, seawater from cleaning refrigerated spaces, food residues, and metals contributed from contact with cooling coils and drain piping. Because evaporator coils are made from corrosion-resistant materials and condensation is non-corrosive, condensate is not expected to contain metals in significant concentrations. Discharges of refrigeration/AC condensate are expected to have a low potential for causing adverse environmental impacts, therefore EPA and DOD determined it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for condensate discharges.

9. Rudder Bearing Lubrication

This discharge is the oil or grease released by the erosion or dissolution from lubricated bearings that support the rudder and allow it to turn freely. Armed Forces vessels generally use two types of rudder bearings, and two lubricating methods for each type of rudder bearing: (1) grease-lubricated roller bearings; (2) oil-lubricated roller bearings; (3) grease-lubricated stave bearings; and (4) water-lubricated stave bearings. Only oil-lubricated roller bearings and grease-lubricated stave bearings generate a discharge.

Approximately 220 Navy vessels, 50 Coast Guard vessels, and eight MSC vessels use a type of rudder bearing that generates this discharge. The discharge occurs intermittently, primarily when a vessel is underway or its rudder is in use, although some discharges from oil-lubricated roller bearings could potentially occur pierside even when the rudder is not being used because the oil lubricant is slightly pressurized.

This discharge consists of oil leakage and the washout of grease from rudder bearings. EPA and DOD developed an upper bound estimate of the fleetwide release of oil and grease based on allowable leakage/washout rates and the amount of time each vessel spends within 12 n.m. from shore. The maximum allowable oil leak rate for oil-lubricated roller bearings is one gallon/day when the vessel is underway and one pint/day while in port. In practice, these leakage rates are not reached under normal conditions. The grease washout rate for grease-lubricated stave bearings is based on Navy specifications limiting grease washout to 5 percent. Grease washout estimates for this

proposed rule are based on releasing 5 percent of the grease over a two-week period, which corresponds to the time between grease applications.

EPA and DOD calculated the expected receiving water concentrations of oil and grease from this discharge to evaluate the potential for the discharge to cause adverse impacts. The underway receiving water volume was determined using an average size vessel and estimating the volume of water displaced by the vessel while transiting from port to a distance of 12 n.m. from shore. In port, discharges are not expected since the lower bearing seals are designed to prevent leakage and, as noted above, the oil to the bearings is kept at a low pressure while in port. The resulting estimated pollutant concentrations do not exceed acute Federal criteria or State acute water quality criteria. The rudder bearing lubrication discharge has a low potential for causing adverse environmental impacts. EPA and DOD determined that it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for this discharge.

10. Steam Condensate

This discharge is the condensed steam discharged from a vessel in port, where the steam originates from shore-based port facilities. Navy and MSC surface ships often use steam from shore facilities during extended port visits to operate auxiliary systems such as laundry facilities, heating systems, and other shipboard systems. In the process of providing heat to ship systems, the steam cools and a portion of it condenses. This condensate collects in drain collection tanks and is periodically discharged by pumping it overboard. The steam condensate is discharged above the vessel waterline and a portion of the condensate can vaporize as it contacts ambient air.

This discharge is generated only in port because vessels only discharge the condensed steam if it was generated by a shore facility. Ships producing their own steam will recycle their condensate back to the boiler. Vessels take on shore steam when their own boilers are shut down, and thus they have no means for reusing the condensate. There are no systems in place that would allow vessels to return steam condensate to shore for reuse.

Depending on the steam needs of individual vessels, the discharge can be intermittent or continuous whenever shore steam is supplied. Approximately 180 Navy and MSC vessels discharge steam condensate. Coast Guard vessels do not generate this discharge because they operate their auxiliary boilers to produce their own steam even while in port. Army and Air Force vessels do not have steam systems and therefore do not discharge steam condensate.

The constituents of steam condensate include metals from onshore steam piping, ship piping, and heat exchangers, and may have some residual water treatment chemicals. Pollutants found in the discharge include nitrogen (in the form of ammonia, nitrates and nitrites, and total Kjeldahl nitrogen), bis(2-ethylhexyl)phthalate, benzidine, antimony, arsenic, cadmium, copper, chromium, lead, nickel, phosphorus, selenium, thallium, and zinc. Sampling of steam condensate from four vessels found copper concentrations that exceed both acute Federal criteria and State acute water quality criteria. Nickel concentrations exceeded the most stringent State acute water quality criteria, but not the acute Federal criteria. Nitrogen concentrations exceeded the most stringent State water quality criteria. Using upper-bound estimates of the volume of steam condensate discharged, the fleetwide mass loadings for nitrogen, copper and nickel were calculated to be 1972 lbs/year, 49 lbs/year and 28 lbs/year, respectively. The mass discharged from any individual vessel while in a given port would be a fraction of that total. The upper-bound estimate for the fleetwide discharge volume is 300 million gallons per year.

Based on modeling of the discharge plume, the thermal effects resulting from the steam condensate discharge exceed mixing zone requirements for Washington. However, these modeling results may overstate the actual thermal effects because the computer model predicted the plume to be only twelve centimeters in depth, which appears to underestimate the degree of mixing that is likely to occur. In addition, certain assumptions used in the model tend to be more representative of worst-case conditions in how they influence the size of the calculated thermal plume. For example, parameters included in the model assume minimum wind speed and slack water (resulting in less mixing) and winter conditions (which results in larger discharge flows).

The low mass loadings in the discharge and the thermal effects modeling results indicate that steam condensate has a low potential for causing adverse environmental impacts. Therefore, EPA and DOD determined that it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for this discharge.

11. Stern Tube Seals and Underwater Bearing Lubrication

This discharge is the seawater pumped through stern tube seals and underwater bearings to lubricate and cool them during normal operation.

Propeller shafts are supported by stern tube bearings at the point where the shaft exits the hull (for surface ships and submarines), and by strut bearings outboard of the ship (for surface ships only). A stern tube seal is used to prevent seawater from entering the vessel where the shaft penetrates the hull. The stern tube seals and bearings are cooled and lubricated by forcing seawater from the firemain or auxiliary cooling water system through the seals and over the bearings. On submarines, potable water (freshwater) may be supplied from pierside connections for stern tube seal lubrication during extended periods in port.

Strut bearings are not provided with forced cooling or lubrication. Instead, strut bearings use the surrounding seawater flow for lubrication and cooling when the vessel is underway. Submarines do not have strut bearings and instead use a self-aligning bearing aft of the stern tube that supports the weight of the propeller and shafting outboard of the vessel.

Almost all classes of surface vessels and submarines have stern tube seals and bearings that require lubrication, and these discharges are continuous. The discharge can contain synthetic (Buna-N) rubber used in the construction of the bearings. Bis(2-ethylhexyl)phthalate and metals such as copper, nickel and zinc are also expected to be present in the discharge. The primary source of bis(2-ethylhexyl)phthalate and the metals in the discharge is the lubricating water (firemain or auxiliary cooling water). The shaft and the stern tube seal may also be a small contributor to the metals present in the discharge. When freshwater is used for lubricating submarine seals, the freshwater may contain residual chlorine. Based on estimates of chlorine concentrations in potable water, fleetwide approximately 0.8 lbs/year of chlorine exit through the stern tube seals and bearings.

Since the majority of metals discharged through the stern tube seals and bearings originate from the firemain system, mass loadings for metals discharged through the stern tube seals and bearings is included as part of the total mass loading calculations for the firemain system discharge, presented in section V.C.11 of the preamble. Metals contributions from the seals and bearings themselves are expected to be

negligible. It should be noted that the mass of metals exiting through the seals and bearings would be reduced by any controls imposed on firemain system discharges in UNDS Phases II and III. While the metals concentrations in the firemain discharge exceed chronic Federal criteria and State chronic water quality criteria, the rate at which the water is discharged through a vessel's stern tube seal and bearings is relatively small—20 gal/min each shaft, 2 shafts per ship—resulting in the low pollutant mass loading exiting through the seals and bearings. Further, these discharges are distributed throughout the U.S. at Armed Forces ports, and each individual port receives only a fraction of the total fleetwide mass loading. (See the Technical Development Document for details on vessel ports.) Given the low rate of the discharge and the low mass loadings, this discharge has a low potential for causing adverse environmental impacts. Therefore, EPA and DOD determined it is not reasonable and practicable to require the use of a MPCD to mitigate adverse impacts on the marine environment for this discharge.

12. Submarine Acoustic Countermeasures Launcher Discharge

This intermittent discharge is composed of seawater that mixes with acoustic countermeasure device propulsion gas after launching an acoustic countermeasure device, then subsequently discharged either through exchange with the surrounding seawater or while draining from an expended device being removed from the submarine.

Navy submarines have the capability to launch acoustic countermeasures devices to improve the survivability of a submarine by generating sufficient noise to be observed by hostile torpedoes, sonars, or other monitoring devices. The only countermeasures systems that generate a discharge within 12 n.m. are the countermeasures set acoustic (CSA) Mk 2 systems, which launch the countermeasure devices by gas propulsion through a launch tube. Following the launch, a metal plate closes the launch tube forming a watertight endcap. To equalize pressure, a one-way check valve allows water to flow into the tube after launch, but does not allow any of the water to be released through the opening. The launch tube cap contains three, ⅜ inch, bleed hole plugs that dissolve approximately three days after the launch. This allows exchange between the launch tube and the surrounding seawater while the submarine is moving. The bleed holes also allow some launch tube water to drain into the surrounding water when the assembly is removed from the submarine for replacement. The CSA Mk2 system is installed on 24 Navy submarines.

Constituents found in the CSA Mk2 launch tubes after launching countermeasures devices include copper, cadmium, lead, and silver. The discharge may also contain constituents from the propulsion gas including hydrochloric acid, carbon dioxide, carbon monoxide, nitrogen, alumina, iron (II) chloride, titanium dioxide, hydrogen, and iron (II) oxide. Sampling indicates that copper, cadmium, and silver concentrations are above both Federal acute water criteria and the most stringent State acute water quality criteria; lead concentrations are above the most stringent State water quality criteria. The total annual mass loadings from all discharges from submarine CSA Mk2 countermeasure launcher systems are estimated at 0.0005 lbs/year cadmium, 0.0009 lbs/year lead, 0.0007 lbs/year copper, and 0.00009 lbs/year silver.

Because of the low annual mass loading, the low frequency at which the discharge occurs, and the volume of the individual discharge event (17 gallons), discharges from submarine CSA launcher systems have a low potential for causing adverse environmental impacts. Therefore EPA and DOD determined it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for this discharge.

13. Submarine Emergency Diesel Engine Wet Exhaust

This discharge is seawater that is mixed and discharged with exhaust gases from the submarine emergency diesel engine for the purpose of cooling the exhaust and quieting the engine.

Submarines are equipped with an emergency diesel engine that is also used in a variety of non-emergency situations, including electrical power generation to supplement or replace shore-supplied electricity, routine maintenance, and readiness checks. This wet exhaust discharge is generated by injecting seawater (or harbor water) as a cooling stream into the diesel engine exhaust system. The cooling water mixes with and cools the hot exhaust gases, and is discharged primarily as a mist that disperses in the air before depositing on the surface of the water body.

All submarines generate this discharge. Diesel engines must be operated for equipment checks that occur prior to submarine deployment, monthly availability assurance, and periodic trend analyses. On average, each submarine will operate the diesel engine for approximately 60 hours/year while within 12 n.m. from shore. Most of the operating time (54 hours/year) occurs while the submarine is pierside.

Typical constituents of diesel engine exhaust include various hydrocarbon combustion by-products, measured as volatile and semi-volatile organic compounds. The priority pollutants expected to be present in the discharge include polycyclic aromatic hydrocarbons (PAHs), toluene, and possibly metals. Although no individual pollutant exceeds water quality criteria, the total concentration of PAHs in the discharge is predicted to exceed State acute water quality criteria. Nevertheless, the discharge of PAHs is unlikely to cause adverse impacts on the marine environment because the total fleetwide annual mass loading of PAHs is calculated to be less than 0.06 pounds per year. Therefore, EPA and DOD determined that it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for submarine diesel engine wet exhaust.

14. Submarine Outboard Equipment Grease and External Hydraulics

This discharge occurs when grease applied to a submarine's outboard equipment is released to the environment through the mechanical action of seawater eroding the grease layer while the submarine is underway, and by the slow dissolution of the grease into the seawater. This discharge also includes any hydraulic oil that may leak past the seals of hydraulically-operated external components of a submarine (e.g., bow planes).

Outboard equipment grease is discharged by all submarines, but the discharge of oil from external hydraulic equipment is limited to 22 submarines. This discharge occurs continuously both within and beyond 12 n.m. from shore, although the rate of discharge depends upon the degree of contact between seawater and the greased outboard components, and how fast the submarine is traveling. Most hydraulically-operated outboard equipment, for example, does not contact seawater within 12 n.m. from shore because submarines generally operate on the surface in this region, and the hydraulically-operated equipment producing this discharge is located mostly above the waterline.

This discharge consists of grease (Termalene #2) and hydraulic oil. Termalene #2 consists of mineral oil, a calcium-based rust inhibitor, thickening agents, an antioxidant, and dye. Using

an assumption that 100 percent of all grease applied to outboard equipment is washed away at a constant rate during submarine operations, the amount of grease released fleetwide within 12 n.m. is approximately 520 lbs/year. This value is believed to overstate the actual mass of grease discharged within 12 n.m. because submarines operate at lower rates of speed in coastal waters (thus leading to less erosion of the grease) and a surfaced submarine exposes a lesser amount of grease to the water than is exposed by a submerged submarine.

Hydraulic oil consists of paraffinic distillates and additives. Using a calculation that assumes all hydraulic system seals leak oil at the maximum allowable leak rate, approximately 0.4 lbs/year of hydraulic oil is released fleetwide within 12 n.m. from shore. (Based on discussions with Navy hydraulic system experts, such oil leakage rates are not common and thus this calculation overestimates the amount of oil actually leaked.) The submarine will displace approximately 120 million cubic feet of water as it travels within 12 n.m. from shore. Assuming that hydraulic oil and outboard grease are leaked at a constant rate, this will result in concentrations below the levels established in acute Federal criteria and State acute water quality criteria.

In addition, the turbulence created by the vessel wake is expected to result in rapid dispersion of the constituents released. As a result, the submarine outboard equipment grease and external hydraulics discharge has low potential for causing adverse environmental effects. EPA and DOD determined it is not reasonable and practicable to require a MPCD to mitigate adverse impacts on the marine environment for this discharge.

VI. Section-By-Section Analysis of the Regulation

A. Subpart A—Scope

Section 1700.1 Applicability

Section 1700.2 Effect

This rule proposes how discharges incidental to the normal operation of Armed Forces vessels would be controlled within the navigable waters of the United States and the waters of the contiguous zone. The rule would apply to owners and operators of Armed Forces vessels. This rule would not apply to commercial and privately owned vessels.

The rule also would preempt States and political subdivisions of States from regulating these discharges, except that States may establish a no-discharge zone or apply to EPA for a no-discharge zone. Federal standards of performance for each required Marine Pollution Control Device will be published in § 1700.14 of this part after the completion of Phase II of UNDS.

Section 1700.3 Definitions

The definitions in the proposed rule are based on definitions in the Clean Water Act (CWA).

The proposed regulatory definition of ''Armed Forces vessel'' is based on the statutory definition of ''vessel of the Armed Forces'' in CWA section 312(a)(14), which includes vessels owned or operated by the Department of Defense, as well as vessels owned or operated by the Department of Transportation that are designated by the Secretary of the department in which the U.S. Coast Guard is operating as operating equivalently to Department of Defense vessels. At present, the U.S. Coast Guard is operating in the Department of Transportation. The Secretary of Transportation has determined that U.S. Coast Guard vessels operate equivalently to vessels of the Department of Defense, and therefore are included in the proposed regulatory definition of ''Armed Forces vessel.'' Armed Forces vessels are discussed in section III of this preamble.

CWA section 312(n) applies to ''discharges, other than sewage, incidental to the normal operation of a vessel of the Armed Forces.'' The proposed regulatory definition of ''discharge incidental to the normal operation of a vessel'' is based on the statutory definition (see CWA section 312(a)(12)(A)), which includes incidental discharges, other than sewage, whenever a vessel is waterborne. If a vessel is not waterborne (e.g., the vessel is in drydock), its discharges would not be covered by this rule; instead these discharges would be covered under the facility's drydock NPDES permit. Discharges not incidental to the normal operation of a vessel, such as those resulting from an emergency situation or unavoidable accident, also would not be covered by this rule. Discharges containing source, special nuclear, or byproduct materials are regulated by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*, and are excluded from regulation under the CWA. Therefore these discharges would not be covered by this rule.

CWA section 312(a)(12)(B) specifically excludes from the definition of discharge incidental to the normal operation of a vessel, and thus from the UNDS program, certain types of discharges. First, incidental discharges do not include discharges of rubbish, trash, garbage, or other such material discharged overboard. Shipboard solid waste, including pulper discharges, is regulated separately under the Act to Prevent Pollution from Ships (APPS), 33 U.S.C. 1901 *et seq.*, which requires public vessels, including warships, to comply with the requirements of Annex V of the Convention to Prevent Pollution from Ships (MARPOL) for shipboard solid waste. Each branch of the Armed Forces and the Coast Guard has developed regulations, separate from UNDS, to implement the requirements of APPS for their vessels.

Second, incidental discharges do not include air emissions resulting from the operation of a vessel propulsion system, motor driven equipment, or incinerator.

Third, incidental discharges do not include any discharges not covered by 40 CFR 122.3 (as in effect of February 10, 1996). This section of the CFR lists discharges that are excluded from National Pollutant Discharge Elimination System (NPDES) permit requirements, such as discharges incidental to the normal operation of a vessel. In other words, UNDS covers discharges that are excluded by EPA in 40 CFR 122.3.

By enacting CWA section 312(n), Congress has chosen to regulate discharges from Armed Forces vessels through uniform national discharge standards, rather than by NPDES permits. This is supported by the statutory change in CWA section 502(c) specifically excluding from the definition of ''pollutant'' any discharges incidental to the normal operation of Armed Forces vessels. Therefore, after a discharge incidental to the normal operation of an Armed Forces vessel is determined not to require control, or after the regulations for the use of MPCDs for controlled discharges are implemented (in Phase III of UNDS), Armed Forces vessels would not be required to obtain or comply with NPDES permits for those discharges.

Although discharges incidental to the normal operation of a vessel are excluded from NPDES requirements under 40 CFR 122.3, that exclusion does not include discharges when a vessel is operating in a capacity other than as a means of transportation, such as when used as a mining facility or seafood processing facility. EPA and DOD do not believe, however, that Congress intended the UNDS program to be limited to Armed Forces vessels only when they are under power. Rather, the purpose of CWA section 312(n)—to enhance the operational flexibility of Armed Forces vessels by avoiding the

problems caused by subjecting these vessels to varying State regulation under the CWA—and its legislative history, clearly indicate congressional intent that this program be comprehensive with respect to these discharges. This intent would not be met if Armed Forces vessels were subject to UNDS technology standards only when under power but then subject to State permitting requirements when they are docked for any period of time, especially when the State standards could be very different from the UNDS standards and would vary from State to State. Indeed, this is the very situation Congress was intending to remedy by prohibiting States from adopting or enforcing regulations affecting discharges covered by UNDS. Therefore, discharges incidental to the normal operation of Armed Forces vessels include incidental discharges whenever a vessel is waterborne, including pierside.

By enacting CWA section 312(n), Congress has chosen to regulate discharges from Armed Forces vessels through uniform national discharge standards, rather than by NPDES permits. Congress made no such statements and passed no legislation regarding commercial and private vessels, and the distinction in 40 CFR 122.3 between discharges from a vessel ''when it is operating as a means of transportation'' and when it is not remains unchanged for those vessels.

Finally, under CWA section 312(n)(6)(B), this rule would not affect the application of CWA section 311 to discharges incidental to the normal operation of Armed Forces vessels.

No-discharge zone is defined in the proposed rule as an area of water into which one or more specified discharges incidental to the normal operation of Armed Forces vessels, whether treated or not, are prohibited. No-discharge zones are identified and established following the requirements in §§ 1700.7 to 1700.10 of this proposed rule.

B. Subpart B—Discharge Determinations

Section 1700.4 Discharges Requiring Control

Section 1700.5 Discharges Not Requiring Control

Information on vessel discharges was gathered as described in section IV, above. The decision methodology described in section V.A was used to determine which discharges require control (described in section V.C) and which discharges do not require control (described in section V.D).

C. Subpart C—Effect on States

Section 1700.6 Effect on State and Local Statutes and Regulations

There are two types of discharges identified in today's proposed rule—those that would require control (listed in § 1700.4) and those that would not require control (listed in § 1700.5). The effect of today's proposed rule on State and local statutes and regulations depends on the type of discharge.

After final promulgation of this rule, neither States nor political subdivisions of States would be able to adopt or enforce any State or local statutes or regulations controlling a discharge that will not require control (listed in § 1700.5). However, States would be able to establish a no-discharge zone by State prohibition (following the provisions of § 1700.9), or apply for a no-discharge zone by EPA prohibition (following the provisions of § 1700.10), for these discharges.

After final promulgation of this rule, States also would be able to apply for a no-discharge zone by EPA prohibition (following the provisions of § 1700.10) for discharges that will require control (listed in § 1700.4). Note that States and their political subdivisions will not be prohibited from controlling discharges listed in § 1700.4 by State or local statute or regulation until after regulations governing the design, construction, installation, and use of the MPCDs are promulgated (i.e., the third phase of UNDS is completed). However, EPA and DOD recommend that States and political subdivisions coordinate their actions with EPA and DOD such that any interim requirements would be consistent with the final Phase III regulations. After Phase III regulations are issued by the Secretary, States and political subdivisions will not be able to adopt or enforce any State of local statute or regulation controlling discharges listed in § 1700.4 except to establish a no-discharge zone by State or EPA prohibition.

States and their political subdivisions will not be prohibited from regulating any discharge that is not listed in either § 1700.4 or § 1700.5.

This rule also proposes the requirements for a State to petition the Administrator and the Secretary to review whether a discharge should require control by a MPCD, or to review a Federal standard of performance for a MPCD (§§ 1700.11 to 1700.13).

Section 1700.7 No-discharge Zones

For this part, a no-discharge zone is a waterbody, or portion thereof, where one or more incidental discharges from Armed Forces vessels, whether treated or not, are prohibited. No-discharge zones are established on the basis of a need to provide additional environmental protection for the designated area of water. A no-discharge zone may be established by either State prohibition (see proposed § 1700.9) or EPA prohibition (see proposed § 1700.10). The most significant difference between the two prohibitions is that in a State prohibition, adequate facilities for the safe and sanitary removal of the prohibited discharge must be reasonably available. In an EPA prohibition, adequate collection facilities are not necessary if EPA determines, following consultation with the Secretary, that the significance of the waters and the potential impact of the discharge are of sufficient magnitude to warrant any resulting constraints on Armed Forces vessels. The purpose for this difference, which was established initially in section 312 of the CWA to apply to discharges from vessel marine sanitation devices, is to provide the opportunity for States to seek additional protection for waterbodies even where collection facilities for the discharge may not be available.

The process for establishing an EPA prohibition is different from the process for establishing a State prohibition, including the requirement for the no-discharge zone to be established through rulemaking rather than by a State statute or regulation. Another difference is that for a State prohibition, the determination that greater protection of the waters is necessary is made by the State; for an EPA prohibition, this determination is made by EPA.

Armed Forces vessels must comply with State and EPA prohibitions, except where the Secretary finds that compliance would not be in the interest of national security (CWA section 312(n)(1)).

Section 1700.8 Discharges for Which No-discharge Zones Can Be Established

After the final promulgation of this rule, no-discharge zones may be established by State or EPA prohibition for any discharge identified as not requiring control (listed in § 1700.5).

After the final promulgation of this rule, no-discharge zones can be established by EPA prohibition for any discharge identified as requiring control (listed in § 1700.4). States will not be preempted from regulating or prohibiting these discharges until after the Secretary identifies design, construction, installation, and operation standards for MPCDs (i.e., after the third phase of UNDS is complete). After the third phase is complete, States wanting

to establish a no-discharge zone by State prohibition for the discharges listed in § 1700.4 must use the procedures in this part.

Section 1700.9 No-discharge Zones by State Prohibition

For a State to establish a no-discharge zone to prohibit one or more Armed Forces discharges from a specified waterbody or portion of a waterbody, several determinations, as specified by section 312(n)(7)(A) of the CWA, must be made. The State must determine that protection and enhancement of the waters of interest require greater environmental protection than provided by UNDS. EPA must determine that: (1) adequate facilities for the safe and sanitary removal of the discharge incidental to the normal operation of Armed Forces vessels are reasonably available for the waters being protected; and (2) the prohibition will not have the effect of discriminating against an Armed Forces vessel by reason of the ownership or operation by the Federal government, or the military function, of the vessel. In making its determinations, EPA will consult with the Secretary on the adequacy of the facilities and the operational impact of any prohibition on Armed Forces vessels.

A State must provide EPA with enough information, as set forth in § 1700.9(a), to make the determinations listed above. This information is consistent with the information required for establishing a State prohibition for sewage discharges as provided in 40 CFR part 140. The required information must include:

(1) The discharge from § 1700.4 or § 1700.5 of this part to be prohibited within the no-discharge zone. An area can be designated as a no-discharge zone for more than one discharge, and this may be done in a single request, but all information required must be presented separately for each discharge.

(2) A detailed description of the waters, or portions thereof, to be included in the prohibition. The description must include a map, preferably a USGS topographic quadrant map, clearly marking the zone boundaries by latitude and longitude.

(3) A determination that the protection and enhancement of the waters described require greater environmental protection than provided by existing Federal standards. The determination should present an argument that the proposed area is in need of greater environmental protection, and a rationale indicating the justification for the no-discharge zone.

(4) A complete description of the facilities available for collecting the discharge. The State must provide a map showing the location(s) and provide a written location description of the facilities, a demonstration that the facilities have the capacity to manage the volume of discharge being prohibited in terms of both vessel berthing and discharge reception, the schedule of operating hours of the facilities, the draft requirements of the vessels that will be required to use the facilities and the available water depth at the facilities, and information showing that handling of the discharge at the facilities is in conformance with Federal law. Information on Armed Forces vessel population and usage of an area and on existing Armed Forces collection facilities may be obtained from the Office of the Chief of Naval Operations, Environmental Protection, Safety and Occupational Health Division, N45, Washington DC, 20350–2000. Information on the amount of discharge expected from Armed Forces vessels may be obtained from the Technical Development Document available in the docket for this rulemaking, or by contacting the Office of the Chief of Naval Operations.

(5) Information on whether the prohibition would be applied to all vessels in the area, and, if not, documentation of the technical or environmental basis for applying the prohibition only to Armed Forces vessels. Documentation on a technical or environmental basis for applying the prohibition only to Armed Forces vessels must include an analysis showing the relative contributions of the discharge from Armed Forces and non-Armed Forces vessels, and a description of State efforts to control the discharge from non-Armed Forces vessels. EPA is asking for information on vessels other than those of the Armed Forces only in order to determine whether there is discrimination against Armed Forces vessels based on their Federal ownership or operation, or military function, and not because it is approving the prohibition with respect to these other vessels.

The first determination to be made by EPA—that adequate collection facilities are reasonably available—will be based upon a finding that the capacity of existing facilities is sufficient to handle the number of vessels and the quantity of discharge produced.

The second determination to be made by EPA—that the prohibition will not have the effect of discriminating against Armed Forces vessels by reason of Federal ownership or operation, or military function—may be based upon a showing that (1) the prohibition will be applied to all vessels (not just vessels of the Armed Forces); or (2) any distinction between Armed Forces vessels and other vessels is based on valid environmental or technical reasons. For example, if a discharge is produced only by Armed Forces vessels, this could be an acceptable technical basis for such a distinction.

If EPA determines that adequate facilities are reasonably available and that the prohibition would not discriminate against Armed Forces vessels by reason of Federal ownership or operation, or military function, the State may promulgate the no-discharge zone as a State statute or regulation, which will be binding on the vessels of the Armed Forces to which UNDS applies.

Section 1700.10 No-discharge Zones by EPA Prohibition

For EPA to establish a no-discharge zone to prohibit one or more Armed Forces discharges from a specified waterbody or portion of a waterbody, several determinations, as specified by section 312(n)(7)(B) of the CWA, must be made. Although these determinations are similar to those for a State prohibition, there are three differences: (1) EPA rather than the State must determine that the protection and enhancement of the specified waters require a prohibition; (2) EPA can not disapprove an application for an EPA prohibition for the sole reason that adequate collection facilities are not available; and (3) EPA must establish the no-discharge zone by rulemaking. In making its determinations, EPA will consult with the Secretary on the adequacy of the facilities and the operational impact of any prohibition on Armed Forces vessels.

For EPA to make the determinations required by the legislation and establish the no-discharge zone, a State must provide an application to EPA including the information set forth in § 1700.10(a). The information required in the application is consistent with the application requirements for requesting an EPA prohibition for sewage discharges as provided in 40 CFR part 140. The application must include:

(1) The discharge from § 1700.4 or § 1700.5 of this part to be prohibited within the no-discharge zone. An area can be designated as a no-discharge zone for more than one discharge, and this may be done in a single request, but all information required must be presented separately for each discharge.

(2) A detailed description of the waters, or portions thereof, to be included in the prohibition. The

description must include a map, preferably a USGS topographic quadrant map, clearly marking the zone boundaries by latitude and longitude.

(3) A technical analysis demonstrating the need for protection and enhancement of the waters of the no-discharge zone beyond those protections provided by Federal regulations. The analysis must provide specific information on why the discharge adversely impacts the zone and how prohibition will protect the zone. In addition, the justification should characterize any sensitive areas, such as aquatic sanctuaries, fish-spawning and nursery areas, pristine areas, areas not meeting water quality standards, drinking water intakes, and recreational areas, that would justify an EPA prohibition. Less technical justification as to why the proposed waters need special protection will be required for an area where there is little or no anticipated Armed Forces vessel presence than for an area where the impact on Armed Forces vessels is considered likely or great.

(4) A complete description of the facilities available for collecting the discharge. The State must provide a map showing the location(s) and provide a written location description of the facilities, a demonstration that the facilities have the capacity to manage the volume of discharge being prohibited in terms of both vessel berthing and discharge reception, the schedule of operating hours of the facilities, the draft requirements of the vessels that will be required to use the facilities and the available water depth at the facilities, and information showing that handling of the discharge at the facilities is in conformance with Federal law. Information on Armed Forces vessel population and usage of an area and on existing Armed Forces collection facilities may be obtained from the Office of the Chief of Naval Operations, Environmental Protection, Safety and Occupational Health Division, N45, Washington DC, 20350–2000. Information on the amount of discharge expected from Armed Forces vessels may be obtained from the Technical Development Document available in the docket for this rulemaking, or by contacting the Office of the Chief of Naval Operations.

(5) Information on whether a similar prohibition would be applied to other vessels in the area, and, if not, documentation of the technical or environmental basis for applying the prohibition only to Armed Forces vessels. Documentation on a technical or environmental basis for applying the prohibition only to Armed Forces vessels must include an analysis showing the relative contributions of the discharge from Armed Forces and non-Armed Forces vessels, and a description of State efforts to control the discharge from non-Armed Forces vessels. EPA is asking for information on vessels other than those of the Armed Forces only in order to determine whether there is discrimination against Armed Forces vessels based on their Federal ownership or operation, or military function, and not because it is approving the prohibition with respect to these other vessels.

In considering a no-discharge zone application under this section, EPA must determine whether adequate facilities for the safe and sanitary removal of the discharge are available. However, the statute directs that EPA shall not disapprove an application under this section for the sole reason that there are not adequate facilities. If adequate facilities are not available, EPA may approve the application but delay the effective date of the prohibition or place other conditions on the prohibition that will provide an opportunity for adequate facilities to become available. EPA may also approve the application without facilities if it determines that the significance of the waters and the potential impact of the discharge are of sufficient magnitude to warrant the resulting constraints on Armed Forces vessels. Such a finding would depend on many factors including the size, shape, and location of the area, the nature and amount of the discharge, and the types of Armed Forces vessels that use the area and their missions. EPA will only make such a determination after careful consultation with the Secretary.

EPA will make a determination regarding the need for additional protection or enhancement of the waters; the availability of adequate collection facilities for vessels of the Armed Forces, or whether, in the absence of available facilities, a prohibition is warranted; and whether the no-discharge zone discriminates against vessels of the Armed Forces. If the EPA prohibition is approved, EPA will establish the no-discharge zone by regulation. When the rule goes into effect, it will be binding on the vessels of the Armed Forces to which UNDS applies.

Section 1700.11 State Petition for Review of Determinations or Standards

Section 312(n)(5)(D) of the CWA authorizes the Governor of any State to submit a petition to the Administrator and the Secretary requesting the re-evaluation of whether a discharge requires control, as identified in this rule, or the re-evaluation of a performance standard established for a discharge requiring control, as identified in the second phase of UNDS. Until performance standards are established in rulemaking, petitions can only be submitted for review of determinations of whether the discharge requires control.

Section 1700.12 Petition Requirements

Section 312(n)(5)(D) of the CWA allows States to submit a petition when there is new, significant information not considered previously that could result in a change to a determination or standard after consideration of the seven factors in the legislation. Any petition for re-evaluation of a determination or standard must include:

(a) The discharge from § 1700.4 or § 1700.5 of this part for which a change in determination is requested, or the performance standard from § 1700.14 of this part for which review is requested.

(b) The scientific and technical information on which the petition is based. Because such a decision will have national implications, the data must be sufficient to support a finding that it is appropriate to change the determination or standard on a nation-wide basis. For this reason, any petition must include or cite to the scientific and technical information on which the petition is based. If the results of field work are submitted, information should be included on the quality assurance and quality control procedures used.

(c) A detailed explanation of how the technical information presented affects the previous determination or standard. The explanation shall take into account the seven factors identified in the UNDS legislation and listed previously in this preamble.

Section 1700.13 Petition Decisions

Section 312(n)(5)(D) of the CWA requires the Administrator and the Secretary to evaluate the petition and grant or deny the petition no later than two years after receiving the petition. If the Administrator and Secretary grant the petition, they will undertake rulemaking to amend the necessary sections of part 1700.

D. Subpart D—MPCD Performance Standards

Section 1700.14 Marine Pollution Control Device (MPCD) Performance Standards

This section is reserved. No performance standards are being proposed in this rulemaking. MPCD

performance standards for discharges requiring control will be promulgated by the Administrator and Secretary in § 1700.14 of this rule at the completion of the second phase of UNDS.

VII. Related Acts of Congress and Executive Orders

A. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, Oct. 4, 1993), EPA and DOD must determine whether the regulatory action is ''significant'' and therefore subject to OMB review and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may: (1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this proposed Phase I rule is not a ''significant regulatory action'' under the terms of Executive Order 12866 and is therefore not subject to OMB review.

B. Unfunded Mandates Reform Act and Executive Order 12875

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub. L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, Section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of Section 205 do not apply when they are inconsistent with applicable law. Moreover, Section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The rule imposes no enforceable duty on any State, local, or tribal governments or the private sector. Thus today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under Section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant intergovernmental mandates, and informing, educating, and advising small governments on compliance with regulatory requirements. As this rule would not impose any mandate on small governments, this rule is not significant as that term applies under Section 203 of the UMRA. This rule does not uniquely affect small governments because the preemption that occurs after promulgation of this rule applies to both large governments (States) as well as small governments. Further, the preemption originates from the CWA rather than this rule. Finally, the no-discharge zone procedures in the rule would apply only to States, not small governments. Thus, this rule would not significantly or uniquely affect small governments and Section 203 of the UMRA does not apply. Nevertheless, as described elsewhere in this preamble and in the record for the rule, DOD and EPA sought meaningful and timely input from States and localities on this proposed rule.

Executive Order 12875 requires that, to the extent feasible and permitted by law, no Federal agency shall promulgate any regulation that is not required by statute and that creates a mandate upon a State, local, or tribal government, unless funds necessary to pay the direct costs incurred by the State, local, or tribal government in complying with the mandate are provided by the Federal government or that the Agency provide OMB certain information about its outreach efforts. As described above this rule contains no Federal mandates. It imposes no enforceable duty on any State, local, or tribal government. Thus, Executive Order 12875 does not apply to this rulemaking.

C. Regulatory Flexibility Act, as Amended by the Small Business Regulatory Enforcement Fairness Act

Under the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 *et seq.*, EPA and DOD generally are required to prepare an initial Regulatory Flexibility Analysis describing the impact of the regulatory action on small entities as part of rulemaking. However, under section 605(b) of the RFA, if the Administrator of EPA or the Secretary of DOD certifies that the rule will not have a significant economic impact on a substantial number of small entities, EPA and DOD are not required to prepare a Regulatory Flexibility Analysis. The RFA recognizes three kinds of small entities, and defines them as follows: (1) Small governmental jurisdictions: any government of a district with a population of less than 50,000; (2) Small business: any business which is independently owned and operated and not dominant in its field, as defined by the Small Business Administration regulations under the Small Business Act; and (3) Small organization: any not for profit enterprise that is independently owned and operated and not dominant in its field. This proposed Phase I rule would address discharges from vessels of the Armed Forces and proposes information collection requirements on States that wish to establish no-discharge zones or petition the Secretary of Defense and the Administrator to review a determination regarding the need for a marine pollution control device or a standard issued under Phase II of the rule. Small entities are not affected by this rule. Therefore, pursuant to section 605(b) of the RFA, the Administrator and the Secretary certify that this proposed Phase I rule will not have a significant economic impact on a substantial number of small entities.

D. Paperwork Reduction Act

The information collection requirements in this proposed Phase I rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No.1791.02, amending the collection with OMB control # 2040–0187) and a copy may be obtained from Sandy Farmer by mail at OPPE Regulatory Information Division; U.S.

Environmental Protection Agency (2137); 401 M St., S.W.; Washington, DC 20460, by email at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

There are three information collections associated with this rule, each of which is required by statute in order for a State to obtain a benefit. Each information collection is discussed separately below (including authority and projected annual hour and cost burdens). The total projected annual hour burden for all three information collections is 958 hours; the projected annual cost burden is $31,871.

In order for a State to establish a No-discharge Zone (NDZ) by State prohibition, EPA must make the following determinations: (i) that adequate facilities for the safe and sanitary removal of the discharge are reasonably available for the waters to which the prohibition would apply; and (ii) that the prohibition will not have the effect of discriminating against a vessel of the Armed Forces by reason of the ownership or operation by the Federal Government, or the military function, of the vessel (see CWA section 312(n)(7)(A), 33 U.S.C. 1322(n)(7)(A)). The State must provide EPA enough information to be able to make those determinations. The specific information being requested is listed in proposed 40 CFR 1700.9(a). The information requested from the State will be used by EPA to make the determinations it is required to make by law in order for a State prohibition to be effective.

The projected annual hour burden for requests by a State to EPA to make the determinations required for the State to establish a NDZ by State prohibition is 717 hours (with an average of 179.25 burden hours per response and an estimated 4 respondents per year). The projected annual cost burden is $23,815 (with an average of $23,215 for labor, $0 for capital and start-up costs, $600 for operation and maintenance, and $0 for the purchase of services).

In order for EPA to establish a NDZ by EPA prohibition (upon application of a State), EPA must make the following determinations: (i) that the protection and enhancement of the quality of the specified waters require a prohibition of the discharge; (ii) that adequate facilities for the safe and sanitary removal of the discharge are reasonably available for the waters to which the prohibition would apply; and (iii) that the prohibition will not have the effect of discriminating against a vessel of the Armed Forces by reason of the ownership or operation by the Federal Government, or the military function, of the vessel (see CWA section 312(n)(7)(B), 33 U.S.C. 1322(n)(7)(B)). The State must provide EPA enough information to be able to make those determinations. The specific information being requested is listed in proposed 40 CFR 1700.10(a). The information requested from the State will be used by EPA to make the determinations it is required to make by law in order to establish a NDZ.

The projected annual hour burden for applications by a State to EPA to establish a NDZ by EPA prohibition is 194.25 hours (with an average of 194.25 burden hours per response and an estimated 1 respondent per year). The projected annual cost burden is $6,478 (with an average of $6,328 for labor, $0 for capital and start-up costs, $150 for operation and maintenance, and $0 for the purchase of services).

The Governor of any State may request EPA and the Secretary of Defense to review (i) a determination of whether an UNDS discharge requires a control, or (ii) a standard of performance for a control on an UNDS discharge, by submitting a petition which discusses significant new scientific and technical information that could reasonably result in a change to the determination or standard (see CWA section 312(n)(5)(D), 33 U.S.C. 1322(n)(5)(D)). The State must provide EPA this information and a discussion of how the information is relevant to one or more of the seven factors which EPA and the Secretary of Defense are required to consider in making these determinations and standards (see CWA section 312(n)(2)(B), 33 U.S.C. 1322(n)(2)(B)). These requirements are listed in proposed 40 CFR 1700.12. The information requested from the State will be used by EPA and the Secretary of Defense in order to review any determinations and standards promulgated under UNDS.

The projected annual hour burden for petitions from a State to EPA and DOD to review a determination or standard is 46.25 hours (with an average of 46.25 burden hours per response and an estimated 1 respondent per year). The projected annual cost burden is $1,578 (with an average of $1,428 for labor, $0 for capital and start-up costs, $150 for operation and maintenance, and $0 for the purchase of services).

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., NW, Washington, DC 20503, marked ''Attention: Desk Officer for EPA.'' Include the ICR number in any correspondence. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after August 25, 1998, a comment to OMB is best assured of having its full effect if OMB receives it by September 24, 1998. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

E. Executive Order 13045

On April 23, 1997, the President issued Executive Order 13045 entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885). The Executive Order applies to any rule that EPA determines (1) ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental or safety effects of the planned rule on children; and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This proposed Phase I rule is not subject to Executive Order 13045 because it is not an economically significant regulatory action as defined by Executive Order 12866.

F. Endangered Species Act

EPA and DOD have discussed the applicability of the Endangered Species Act (ESA) to the three phases of the Uniform National Discharge Standards rulemaking. As Phase I is a preliminary step, simply identifying the discharges that will require control and the discharges that will not require control, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service have agreed that the consultation requirements of section 7 of the ESA do not apply to Phase I. Instead, EPA and DOD will initiate consultation during Phase II of the UNDS rulemaking, which will establish performance standards for the discharges identified in Phase I as requiring control.

G. National Technology Transfer and Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act (NTTAA), EPA and DOD are required to use voluntary consensus standards in their regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by voluntary consensus standards bodies. Where available and potentially applicable voluntary consensus standards are not used by EPA or DOD, the Act requires the Agency and Department to provide Congress, through the Office of Management and Budget, an explanation of the reasons for not using such standards.

EPA and DOD do not believe that this proposed Phase I rule addresses any technical standards subject to the NTTAA. It simply addresses which discharges would or would not require a MPCD. A commenter who disagrees with this conclusion should indicate how the notice is subject to the Act and identify any potentially applicable voluntary consensus standards.

Appendix A to the Preamble—Abbreviations, Acronyms, and Other Terms Used in This Document

Administrator—The Administrator of the U.S. Environmental Protection Agency
AFFF—Aqueous film-forming foam
CFR—U.S. Code of Federal Regulations
CPO—Chlorine-produced oxidants
CPP—Controllable pitch propeller
Clean Water Act—The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 *et seq.*)
CWA—Clean Water Act
DOD—U.S. Department of Defense
EPA—U.S. Environmental Protection Agency
ICCP—Impressed current cathodic protection
LCAC—Air-cushion landing craft
LCU—Utility landing craft
MPCD—Marine pollution control device
MSC—Military Sealift Command
n.m.—Nautical miles
No-discharge zone—An area of water into which one or more specified discharges is prohibited, as established under procedures set forth in proposed 40 CFR 1700.7 to 1700.10
NPDES—National Pollutant Discharge Elimination System
OCM—Oil content monitor
OWS—Oil-water separator psi—Pounds per square inch
Secretary—The Secretary of the U.S. Department of Defense
TBT—Tributyl tin
USDA—U.S. Department of Agriculture
UNDS—Uniform national discharge standards

List of Subjects in 40 CFR Part 1700

Environmental protection, Armed Forces, Coastal zone, Vessels, Water pollution control.

Dated: August 11, 1998.

Carol M. Browner,

Administrator, Environmental Protection Agency.

Dated: August 4, 1998.

Robert B. Pirie, Jr.,

Assistant Secretary of the Navy (Installations and Environment).

For the reasons set forth in the preamble, EPA and DOD propose to establish a new chapter VII in title 40 of the Code of Federal Regulations consisting at this time of part 1700 to read as follows:

CHAPTER VII—ENVIRONMENTAL PROTECTION AGENCY AND DEPARTMENT OF DEFENSE

PART 1700—UNIFORM NATIONAL DISCHARGE STANDARDS FOR VESSELS OF THE ARMED FORCES

Subpart A—Scope

Sec.
1700.1 Applicability.
1700.2 Effect.
1700.3 Definitions.

Subpart B—Discharge Determinations

1700.4 Discharges requiring control.
1700.5 Discharges not requiring control.

Subpart C—Effect on States

1700.6 Effect on State and local statutes and regulations.

No-Discharge Zones

1700.7 No-discharge zones.
1700.8 Discharges for which no-discharge zones can be established.
1700.9 No-discharge zones by State prohibition.
1700.10 No-discharge zones by EPA prohibition.

State Petition for review

1700.11 State petition for review of determinations or standards.
1700.12 Petition requirements.
1700.13 Petition decisions.

Subpart D—Marine Pollution Control Device (MPCD) Performance Standards

1700.14 Marine Pollution Control Device (MPCD) Performance Standards. [reserved]

Authority: 33 U.S.C. 1322, 1361.

PART 1700—UNIFORM NATIONAL DISCHARGE STANDARDS FOR VESSELS OF THE ARMED FORCES

Subpart A—Scope

§ 1700.1 Applicability.

(a) This part applies to the owners and operators of Armed Forces vessels, except where the Secretary of Defense finds that compliance with this part is not in the interest of the national security of the United States. This part does not apply to vessels while they are under construction, vessels in drydock, amphibious vehicles, or vessels under the jurisdiction of the Department of Transportation other than those of the Coast Guard.

(b) This part also applies to States and political subdivisions of States.

§ 1700.2 Effect.

(a) This part identifies those discharges, other than sewage, incidental to the normal operation of Armed Forces vessels that require control within the navigable waters of the United States and the waters of the contiguous zone, and those discharges that do not require control. Discharges requiring control are identified in § 1700.4. Discharges not requiring control are identified in § 1700.5. Federal standards of performance for each required Marine Pollution Control Device are listed in § 1700.14. This part is not applicable beyond the contiguous zone.

(b) This part prohibits States and their political subdivisions from adopting or enforcing State or local statutes or regulations controlling the discharges from Armed Forces vessels listed in §§ 1700.4 and 1700.5 according to the timing provisions in § 1700.6, except to establish a no-discharge zone by State prohibition in accordance with § 1700.9, or to apply for a no-discharge zone by

EPA prohibition in accordance with § 1700.10. This part also provides a mechanism for States to petition the Administrator and the Secretary to review a determination of whether a discharge requires control, or to review a Federal standard of performance for a Marine Pollution Control Device, in accordance with §§ 1700.11 through 1700.13.

§ 1700.3 Definitions.

Administrator means the Administrator of the United States Environmental Protection Agency or that person's authorized representative.

Armed Forces vessel means a vessel owned or operated by the United States Department of Defense or the United States Coast Guard, other than vessels that are time or voyage chartered by the Armed Forces, vessels of the U.S. Army Corps of Engineers, or vessels that are memorials or museums.

Discharge incidental to the normal operation of a vessel means a discharge, including, but not limited to: graywater, bilgewater, cooling water, weather deck runoff, ballast water, oil water separator effluent, and any other pollutant discharge from the operation of a marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult, or from a protective, preservative, or absorptive application to the hull of a vessel; and a discharge in connection with the testing, maintenance, and repair of any of the aforementioned systems whenever the vessel is waterborne, including pierside. A discharge incidental to normal operation does not include:

(1) Sewage;

(2) A discharge of rubbish, trash, or garbage;

(3) A discharge of air emissions resulting from the operation of a vessel propulsion system, motor driven equipment, or incinerator;

(4) A discharge that requires a National Pollutant Discharge Elimination System (NPDES) permit under the Clean Water Act; or

(5) A discharge containing source, special nuclear, or byproduct materials regulated by the Atomic Energy Act.

Environmental Protection Agency, abbreviated EPA, means the United States Environmental Protection Agency.

Marine Pollution Control Device, abbreviated MPCD, means any equipment or management practice installed or used on an Armed Forces vessel that is designed to receive, retain, treat, control, or discharge a discharge incidental to the normal operation of a vessel, and that is determined by the Administrator and Secretary to be the most effective equipment or management practice to reduce the environmental impacts of the discharge consistent with the considerations in Clean Water Act section 312(n)(2)(B).

No-discharge zone means an area of specified waters established pursuant to this regulation into which one or more specified discharges incidental to the normal operation of Armed Forces vessels, whether treated or untreated, are prohibited.

Secretary means the Secretary of the United States Department of Defense or that person's authorized representative.

United States includes the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Canal Zone, and the Trust Territory of the Pacific Islands.

Vessel includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on navigable waters of the United States or waters of the contiguous zone, but does not include amphibious vehicles.

Subpart B—Discharge Determinations

§ 1700.4 Discharges requiring control.

For the following discharges incidental to the normal operation of Armed Forces vessels, the Administrator and the Secretary have determined that it is reasonable and practicable to require use of a Marine Pollution Control Device for at least one class of vessel to mitigate adverse impacts on the marine environment:

(a) Aqueous Film-Forming Foam: the firefighting foam and seawater mixture discharged during training, testing, or maintenance operations.

(b) Catapult Water Brake Tank & Post-Launch Retraction Exhaust: the oily water skimmed from the water tank used to stop the forward motion of an aircraft carrier catapult, and the condensed steam discharged when the catapult is retracted.

(c) Chain Locker Effluent: the accumulated precipitation and seawater that is emptied from the compartment used to store the vessel's anchor chain.

(d) Clean Ballast: the seawater taken into, and discharged from, dedicated ballast tanks to maintain the stability of the vessel and to adjust the buoyancy of submarines.

(e) Compensated Fuel Ballast: the seawater taken into, and discharged from, ballast tanks designed to hold both ballast water and fuel to maintain the stability of the vessel.

(f) Controllable Pitch Propeller Hydraulic Fluid: the hydraulic fluid that discharges into the surrounding seawater from propeller seals as part of normal operation, and the hydraulic fluid released during routine maintenance of the propellers.

(g) Deck Runoff: the precipitation, washdowns, and seawater falling on the weather deck of a vessel and discharged overboard through deck openings.

(h) Dirty Ballast: the seawater taken into, and discharged from, empty fuel tanks to maintain the stability of the vessel.

(i) Distillation and Reverse Osmosis Brine: the concentrated seawater (brine) produced as a byproduct of the processes used to generate freshwater from seawater.

(j) Elevator Pit Effluent: the liquid that accumulates in, and is discharged from, the sumps of elevator wells on vessels.

(k) Firemain Systems: the seawater pumped through the firemain system for firemain testing, maintenance, and training, and to supply water for the operation of certain vessel systems.

(l) Gas Turbine Water Wash: the water released from washing gas turbine components.

(m) Graywater: galley, bath, and shower water, as well as wastewater from lavatory sinks, laundry, interior deck drains, water fountains, and shop sinks.

(n) Hull Coating Leachate: the constituents that leach, dissolve, ablate, or erode from the paint on the hull into the surrounding seawater.

(o) Motor Gasoline and Compensating Discharge: the seawater taken into, and discharged from, motor gasoline tanks to eliminate free space where vapors could accumulate.

(p) Non-oily machinery wastewater: the combined wastewater from the operation of distilling plants, water chillers, valve packings, water piping, low- and high-pressure air compressors, and propulsion engine jacket coolers.

(q) Photographic Laboratory Drains: the laboratory wastewater resulting from processing of photographic film.

(r) Seawater Cooling Overboard Discharge: the discharge of seawater from a dedicated system that provides noncontact cooling water for other vessel systems.

(s) Seawater Piping Biofouling Prevention: the discharge of seawater containing additives used to prevent the growth and attachment of biofouling organisms in dedicated seawater cooling systems on selected vessels.

(t) Small Boat Engine Wet Exhaust: the seawater that is mixed and discharged with small boat propulsion engine exhaust to cool the exhaust and quiet the engine.

(u) Sonar Dome Discharge: the leaching of antifoulant materials into the surrounding seawater and the release of seawater or freshwater retained within the sonar dome.

(v) Submarine Bilgewater: the wastewater from a variety of sources that accumulates in the lowest part of the submarine (i.e., bilge).

(w) Surface Vessel Bilgewater/Oil-Water Separator Effluent: the wastewater from a variety of sources that accumulates in the lowest part of the vessel (the bilge), and the effluent produced when the wastewater is processed by an oil water separator.

(x) Underwater Ship Husbandry: the materials discharged during the inspection, maintenance, cleaning, and repair of hulls performed while the vessel is waterborne.

(y) Welldeck Discharges: the water that accumulates from seawater flooding of the docking well (welldeck) of a vessel used to transport, load, and unload amphibious vessels, and from maintenance and freshwater washings of the welldeck and equipment and vessels stored in the welldeck.

§ 1700.5 Discharges not requiring control.

For the following discharges incidental to the normal operation of Armed Forces vessels, the Administrator and the Secretary have determined that it is not reasonable or practicable to require use of a Marine Pollution Control Device to mitigate adverse impacts on the marine environment:

(a) Boiler Blowdown: the water and steam discharged when a steam boiler is blown down, or when a steam safety valve is tested.

(b) Catapult Wet Accumulator Discharge: the water discharged from a catapult wet accumulator, which stores a steam/water mixture for launching aircraft from an aircraft carrier.

(c) Cathodic Protection: the constituents released into surrounding water from sacrificial anode or impressed current cathodic hull corrosion protection systems.

(d) Freshwater Lay-up: the potable water that is discharged from the seawater cooling system while the vessel is in port, and the cooling system is in lay-up mode (a standby mode where seawater in the system is replaced with potable water for corrosion protection).

(e) Mine Countermeasures Equipment Lubrication: the constituents released into the surrounding seawater by erosion or dissolution from lubricated mine countermeasures equipment when the equipment is deployed and towed.

(f) Portable Damage Control Drain Pump Discharge: the seawater pumped through the portable damage control drain pump and discharged overboard during testing, maintenance, and training activities.

(g) Portable Damage Control Drain Pump Wet Exhaust: the seawater mixed and discharged with portable damage control drain pump exhaust to cool the exhaust and quiet the engine.

(h) Refrigeration and Air Conditioning Condensate: the drainage of condensed moisture from air conditioning units, refrigerators, freezers, and refrigerated spaces.

(i) Rudder Bearing Lubrication: the oil or grease released by the erosion or dissolution from lubricated bearings that support the rudder and allow it to turn freely.

(j) Steam Condensate: the condensed steam discharged from a vessel in port, where the steam originates from port facilities.

(k) Stern Tube Seals and Underwater Bearing Lubrication: the seawater pumped through stern tube seals and underwater bearings to lubricate and cool them during normal operation.

(l) Submarine Countermeasures Set Acoustic Launcher Discharge: the seawater that is mixed with acoustic countermeasure device propulsion gas following a countermeasure launch that is then exchanged with surrounding seawater, or partially drained when the launch assembly is removed from the submarine for maintenance.

(m) Submarine Emergency Diesel Engine Wet Exhaust: the seawater that is mixed and discharged with submarine emergency diesel engine exhaust to cool the exhaust and quiet the engine.

(n) Submarine Outboard Equipment Grease and External Hydraulics: the grease released into the surrounding seawater by erosion or dissolution from submarine equipment exposed to seawater.

Subpart C—Effect on States

§ 1700.6 Effect on State and local statutes and regulations.

(a) After the effective date of a final rule determining that it is not reasonable and practicable to require use of a Marine Pollution Control Device regarding a particular discharge incidental to the normal operation of an Armed Forces vessel, States or political subdivisions of States may not adopt or enforce any State or local statute or regulation, including issuance or enforcement of permits under the National Pollutant Discharge Elimination System, controlling that discharge, except that States may establish a no-discharge zone by State prohibition (as provided in § 1700.9), or apply for a no-discharge zone by EPA prohibition (as provided in § 1700.10).

(b)(1) After the effective date of a final rule determining that it is reasonable and practicable to require use of a Marine Pollution Control Device regarding a particular discharge incidental to the normal operation of an Armed Forces vessel, States may apply for a no-discharge zone by EPA prohibition (as provided in § 1700.10) for that discharge.

(2) After the effective date of a final rule promulgated by the Secretary governing the design, construction, installation, and use of a Marine Pollution Control Device for a discharge listed in § 1700.4, States or political subdivisions of States may not adopt or enforce any State or local statute or regulation, including issuance or enforcement of permits under the National Pollutant Discharge Elimination System, controlling that discharge except that States may establish a no-discharge zone by State prohibition (as provided in § 1700.9), or apply for a no-discharge zone by EPA prohibition (as provided in § 1700.10).

(c) The Governor of any State may submit a petition requesting that the Administrator and Secretary review a determination of whether a Marine Pollution Control Device is required for any discharge listed in § 1700.4 or § 1700.5, or review a Federal standard of performance for a Marine Pollution Control Device.

No-Discharge Zones

§ 1700.7 No-discharge zones.

For this part, a no-discharge zone is a waterbody, or portion thereof, where one or more discharges incidental to the normal operation of Armed Forces vessels, whether treated or not, are prohibited. A no-discharge zone is established either by State prohibition using the procedures in § 1700.9, or by EPA prohibition, upon application of a State, using the procedures in § 1700.10.

§ 1700.8 Discharges for which no-discharge zones can be established.

(a) A no-discharge zone may be established by State prohibition for any discharge listed in § 1700.4 or § 1700.5 following the procedures in § 1700.9. A no-discharge zone established by a State using these procedures may apply only to those discharges that have been preempted from other State or local regulation pursuant to § 1700.6.

(b) A no-discharge zone may be established by EPA prohibition for any discharge listed in § 1700.4 or § 1700.5 following the procedures in § 1700.10.

§ 1700.9 No-discharge zones by State prohibition.

(a) A State seeking to establish a no-discharge zone by State prohibition must send to the Administrator the following information:

(1) The discharge from § 1700.4 or § 1700.5 to be prohibited within the no-discharge zone.

(2) A detailed description of the waterbody, or portions thereof, to be included in the prohibition. The description must include a map, preferably a USGS topographic quadrant map, clearly marking the zone boundaries by latitude and longitude.

(3) A determination that the protection and enhancement of the waters described in paragraph (a)(2) of this section require greater environmental protection than provided by existing Federal standards.

(4) A complete description of the facilities reasonably available for collecting the discharge including:

(i) A map showing their location(s) and a written location description.

(ii) A demonstration that the facilities have the capacity and capability to provide safe and sanitary removal of the volume of discharge being prohibited in terms of both vessel berthing and discharge reception.

(iii) The schedule of operating hours of the facilities.

(iv) The draft requirements of the vessel(s) that will be required to use the facilities and the available water depth at the facilities.

(v) Information showing that handling of the discharge at the facilities is in conformance with Federal law.

(5) Information on whether vessels other than those of the Armed Forces are subject to the same type of prohibition. If the State is not applying the prohibition to all vessels in the area, the State must demonstrate the technical or environmental basis for applying the prohibition only to Armed Forces vessels. The following information must be included in the technical or environmental basis for treating Armed Forces vessels differently:

(i) An analysis showing the relative contributions of the discharge from Armed Forces and non-Armed Forces vessels.

(ii) A description of State efforts to control the discharge from non-Armed Forces vessels.

(b) The information provided under paragraph (a) of this section must be sufficient to enable EPA to make the two determinations listed below. Prior to making these determinations, EPA will consult with the Secretary on the adequacy of the facilities and the operational impact of any prohibition on Armed Forces vessels.

(1) Adequate facilities for the safe and sanitary removal of the discharge are reasonably available for the specified waters.

(2) The prohibition will not have the effect of discriminating against vessels of the Armed Forces by reason of the ownership or operation by the Federal Government, or the military function, of the vessels.

(c) EPA will notify the State in writing of the result of the determinations under paragraph (b) of this section, and will provide a written explanation of any negative determinations. A no-discharge zone established by State prohibition will not go into effect until EPA determines that the conditions of paragraph (b) of this section have been met.

§ 1700.10 No-discharge zones by EPA prohibition.

(a) A State requesting EPA to establish a no-discharge zone must send to the Administrator an application containing the following information:

(1) The discharge from § 1700.4 or § 1700.5 to be prohibited within the no-discharge zone.

(2) A detailed description of the waterbody, or portions thereof, to be included in the prohibition. The description must include a map, preferably a USGS topographic quadrant map, clearly marking the zone boundaries by latitude and longitude.

(3) A technical analysis showing why protection and enhancement of the waters described in paragraph (a)(2) of this section require a prohibition of the discharge. The analysis must provide specific information on why the discharge adversely impacts the zone and how prohibition will protect the zone. In addition, the analysis should characterize any sensitive areas, such as aquatic sanctuaries, fish-spawning and nursery areas, pristine areas, areas not meeting water quality standards, drinking water intakes, and recreational areas.

(4) A complete description of the facilities reasonably available for collecting the discharge including:

(i) A map showing their location(s) and a written location description.

(ii) A demonstration that the facilities have the capacity and capability to provide safe and sanitary removal of the volume of discharge being prohibited in terms of both vessel berthing and discharge reception.

(iii) The schedule of operating hours of the facilities.

(iv) The draft requirements of the vessel(s) that will be required to use the facilities and the available water depth at the facilities.

(v) Information showing that handling of the discharge at the facilities is in conformance with Federal law.

(5) Information on whether vessels other than those of the Armed Forces are subject to the same type of prohibition. If the State is not applying the prohibition to all vessels in the area, the State must demonstrate the technical or environmental basis for applying the prohibition only to Armed Forces vessels. The following information must be included in the technical or environmental basis for treating Armed Forces vessels differently:

(i) An analysis showing the relative contributions of the discharge from Armed Forces and non-Armed Forces vessels.

(ii) A description of State efforts to control the discharge from non-Armed Forces vessels.

(b) The information provided under paragraph (a) of this section must be sufficient to enable EPA to make the three determinations listed below. Prior to making these determinations, EPA will consult with the Secretary on the adequacy of the facilities and the operational impact of the prohibition on Armed Forces vessels.

(1) The protection and enhancement of the specified waters require a prohibition of the discharge.

(2) Adequate facilities for the safe and sanitary removal of the discharge are reasonably available for the specified waters.

(3) The prohibition will not have the effect of discriminating against vessels of the Armed Forces by reason of the ownership or operation by the Federal Government, or the military function, or the vessels.

(c) If the three conditions in paragraph (b) of this section are met, EPA will by regulation establish the no-discharge zone. If the conditions in paragraphs (b)(1) and (3) of this section are met, but the condition in paragraph (b)(2) of this section is not met, EPA may establish the no-discharge zone if it determines that the significance of the waters and the potential impact of the discharge are of sufficient magnitude to warrant any resulting constraints on Armed Forces vessels.

(d) EPA will notify the State of its decision on the no-discharge zone application in writing. If EPA approves the no-discharge zone application, EPA will by regulation establish the no-discharge zone by modification to this part. A no-discharge zone established by EPA prohibition will not go into effect until the effective date of the regulation.

State Petition for Review

§ 1700.11 State petition for review of determinations or standards.

The Governor of any State may submit a petition requesting that the Administrator and Secretary review a determination of whether a Marine Pollution Control Device is required for any discharge listed in § 1700.4 or § 1700.5, or review a Federal standard of performance for a Marine Pollution Control Device. A State may submit a petition only where there is new, significant information not considered previously by the Administrator and Secretary.

§ 1700.12 Petition requirements.

A petition for review of a determination or standard must include:

(a) The discharge from § 1700.4 or § 1700.5 for which a change in determination is requested, or the performance standard from § 1700.14 for which review is requested.

(b) The scientific and technical information on which the petition is based.

(c) A detailed explanation of why the State believes that consideration of the new information should result in a change to the determination or the standard on a nationwide basis, and an explanation of how the new information is relevant to one or more of the following factors:

(1) The nature of the discharge.

(2) The environmental effects of the discharge.

(3) The practicability of using a Marine Pollution Control Device.

(4) The effect that installation or use of the Marine Pollution Control Device would have on the operation or operational capability of the vessel.

(5) Applicable United States law.

(6) Applicable international standards.

(7) The economic costs of the installation and use of the Marine Pollution Control Device.

§ 1700.13 Petition decisions.

The Administrator and the Secretary will evaluate the petition and grant or deny the petition no later than two years after the date of receipt of the petition. If the Administrator and Secretary grant the petition, they will undertake rulemaking to amend this part. If the Administrator and Secretary deny the petition, they will provide the State with a written explanation of why they denied it.

Subpart D—Marine Pollution Control Device (MPCD) Performance Standards

§ 1700.14 Marine Pollution Control Device (MPCD) Performance Standards. [Reserved.]

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