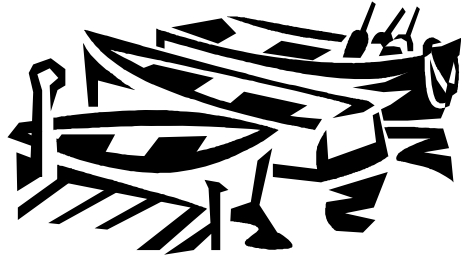


**FLORIDA MARINE SEWAGE DISCHARGE
REGULATION**



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TABLE OF CONTENTS

I.	Introduction to the Legal Framework	3
II.	Regulated Vessels	4
	A. Existing Vessels	6
	B. New Vessels	6
	C. Public Vessels	6
	D. Houseboats	7
III.	Regulated Discharges	7
IV.	Regulated Entities	8
	A. Manufacturers	8
	B. Operators	8
V.	Marine Sanitation Device Standards	9
	A. Performance Standards	9
	1. Type 1 Marine Sanitation Device	9
	2. Type 2 Marine Sanitation Device	9
	3. Type 3 Marine Sanitation Device	10
	B. Certification and Labeling Requirements	10
VI.	Regulated Waters	11
	A. No Discharge Zones	12
	1. Freshwater No Inlet Zones	12
	2. State Established No Discharge Zones	13
	a. Complete Prohibition Zones	13
	i. Environmental Protection Zones	13
	ii. Pristine Water Zones	15
	b. Drinking Water Intake No Discharge Zones	16
	B. Coastal Zones	17
VII.	Enforcement	17
VIII.	Conclusion	19

Regulators have been increasingly concerned with the effect of marine sewage discharge from vessels in Florida waters. As boat traffic increases, the volume of untreated sewage discharged into Florida waters also increases. A single weekend boater discharging untreated sewage into the waters produces the same amount of bacterial pollution as 10,000 people whose sewage passes through a treatment plant.¹ Sewage discharge can lead to increased incidents of hepatitis, cholera and typhoid, contaminate shellfish beds, and deplete oxygen levels in waters because of excessive nutrient loading. Current sewage discharge regulation seeks to balance water quality considerations with the costs and difficulties in addressing marine sanitation aboard vessels, especially older vessels. This is accomplished through the establishment of performance standards for marine sanitation devices (MSDs) and through zoning.

This article addresses the federal and state regulatory regime for discharging sewage from vessels. Section I provides an introduction to the federal and state regulation of sewage discharge from vessels. Sections II, III, and IV identify the vessels, discharges, and persons regulated under the federal and state framework. Section V outlines federal performance standards for MSDs, and Section VI describes federal effluent limitations applicable to various water body zones. Section VI explains the process through which EPA approves state designation of so called No Discharge Zones and provides case studies of this designation process. Section VII discusses enforcement of the federal and state standards.

I. Introduction to the Legal Framework

The current regulatory framework for marine sewage discharge is dominated by federal law. Through section 312 of the Clean Water Act², the federal government regulates the discharge of treated and untreated sewage into the waters of the United States.³ The federal statute addresses vessel discharge by regulating operators and manufacturers of vessels equipped with toilets.⁴ It then

¹ *Shipshape Sanitation*, Cal. Dep't. of Boating and Waterways, www.dbw.ca.gov/Pubs/Sanitation/index.htm (last visited Apr. 9, 2007).

² The Clean Water Act is officially entitled the Federal Water Pollution Control Act. *See* 33 U.S.C. § 1251 (2007) (originally enacted as Act of June 30, 1948, ch. 758, Titles I-V, as added Oct. 18, 1972, P.L. 92-500, § 2, 86 Stat. 816 and Dec. 27, 1977, P.L. 95-217, §§ 39-41, 91 Stat. 1581.)

³ The regulation of MSDs is a bifurcated process with both the United State Coast Guard and the Environmental Protection Agency having legislative delegation of authority to establish and implement federal standards. MSD performance standards for certification purposes are promulgated by the United States Coast Guard. *See* 33 C.F.R. § 159 (2007). The Environmental Protection Agency establishes by regulation the water body zones, sets effluent limits in each zone, and approves state designations of zones. *See* 40 C.F.R. § 140 (2007).

⁴ Florida law requires that all vessels 26 feet or more in length with an enclosed cabin with berthing facilities must be equipped with portable or permanently installed toilet. *See* FLA. STAT. § 327.53(1) (2006). Houseboats, however, must have a permanently installed toilet. *See id.*

prohibits the manufacture, sale, or operation of vessels with toilets that are not equipped with certified or labeled MSDs.⁵ The MSDs must meet performance standards, in the form of effluent limits for fecal coliform bacteria and suspended solids prior to certification or labeling of the MSD.⁶ There are three types of federally approved MSDs: Type I, Type II, and Type III. The Coast Guard establishes separate performance standards for each type of MSD. The EPA's regulations also designate water body zones in which discharge of effluent is limited or completely prohibited.⁷ Finally, the federal statute authorizes states to establish no discharge zones within the state's waters, contingent upon EPA's approval.⁸

State and local regulation of sewage discharge by boaters occupies a much narrower field. This is because federal law preempts states from regulating MSDs, except in three instances. First, the State can establish complete discharge prohibition zones. Secondly, the State can establish no discharge zones around drinking water intake areas. The establishment of these state zones is contingent upon the Environmental Protection Agency's approval of the designation. Finally, the state may regulate the use of MSDs on houseboats.⁹ Thus, Florida's statute on MSDs is limited to houseboat regulations and designation of which vessels must be equipped with toilets.¹⁰ Any other attempt by the state or political subdivisions of the state to regulate MSD would be preempted by federal law.¹¹ The Florida Statute does prohibit the discharge of raw sewage into the state's waters, but this is not preempted by federal law because it is not in conflict with federal regulations and because the prohibition does not regulate MSDs.¹²

II. Regulated Vessels

Any vessel equipped with an installed toilet is regulated by the federal statute.¹³ The term vessel is defined by as including, "every description of watercraft or other artificial contrivance used, or

⁵ 33 U.S.C. § 1322(g)(1) (2007). A marine sanitation device refers to equipment installed onboard a vessel designed to retain, treat, or discharge sewage and to processes used to treat such sewage. *See* 33 U.S.C. § 1322(a)(5) (2007); 40 C.F.R. § 140.1(c) (2007); 33 C.F.R. § 159.3 (2007).

⁶ 33 U.S.C. § 1322(b) (2007).

⁷ 40 C.F.R. § 140.3 (2007).

⁸ 33 U.S.C. § 1322(f) (2007).

⁹ 33 U.S.C. § 1322(f) (2007).

¹⁰ FLA. STAT. § 327.53 (2006).

¹¹ 33 U.S.C. § 1322(f)(1)(A) (2007) (stating, "after the effective date of the initial standards and regulations, no State or political subdivision thereof shall adopt or enforce any statute or regulation of such State or political subdivision with respect to the design, manufacture, or installation or use of any marine sanitation device on any vessel.")

¹² FLA. STAT. § 327.53(4)(a) (2006).

¹³ 33 U.S.C. § 1322(b)(1) (2007). Portable toilets or "porta-potties" are not considered installed toilets and are not subject to MSD regulations. *See Marine Sanitation Devices*, United States Coast Guard, www.uscg.mil/hq/gm/mse/msd.htm#Portable%20Toilets (last visited Apr. 9, 2007). Vessels with portable toilets are, however, still subject to disposal regulations that prohibit the disposal of raw sewage within territorial waters, the Great Lakes, or navigable rivers. *Id.*

capable of being used, as a means of transportation on the waters of the United States.”¹⁴ While the federal statute regulates vessels with installed toilets, it does not specify on what types of vessels toilets must be installed. The Florida statute fills this gap by providing that any vessel more than 26 feet in length that has an enclosed cabin with berthing facilities must install a permanent or portable toilet.¹⁵ The Florida statute also requires houseboats to have permanently installed toilets¹⁶ and requires that floating structures¹⁷ that have enclosed living space with berthing facilities or working space with public access must be equipped with permanently installed toilets connected to Type III MSDs or be permanently attached via plumbing to shore side sewage disposal.¹⁸

The Florida statute provides that on boats other than houseboats, the toilet may be portable or permanent.¹⁹ Whether a vessel is required to have a permanently installed or portable toilet may prove significant in whether the vessel is regulated by the federal statute. For instance, if the federal statute is interpreted as applicable only to permanently installed toilets, then to avoid regulation boat owners could simply retrofit their vessels with portable toilets instead of permanent ones. While no case law exists construing the definition of “installed toilet”, the Coast Guard’s web page on marine sanitation devices and commentators suggest that portable toilets are not installed toilets.²⁰ Thus, the Coast Guard states that “porta potties” and portable toilets are not regulated by federal law, which might lead to the portable toilet loopholes.²¹

The federal statute distinguishes among several types of vessels including existing vessels, new vessels, public vessels, and houseboats.²² Existing vessels and new vessels differ in the dates upon which the performance standards and effluent limits go into effect. If classified as a public vessel, a vessel operator may gain certain immunities from enforcement provision. If classified as a

¹⁴ 40 C.F.R. § 140.1(d) (2007).

¹⁵ FLA. STAT. § 327.53(1) (2006).

¹⁶ FLA. STAT. § 327.53(1) (2006).

¹⁷ A floating structure is defined as, “floating entity, with or without accommodations built thereon, which is not primarily used as a means of transportation on water but which serves purposes or provides services typically associated with a structure or other improvement to real property.” FLA. STAT. § 327.02(10) (2006) The term floating structure includes, but is not limited to, “each entity used as a residence, place of business or office with public access, hotel or motel, restaurant or lounge, clubhouse, meeting facility, storage or parking facility, mining platform, dredge, dragline, or similar facility or entity represented as such.” FLA. STAT. § 327.02(10) (2006). Vessels are specifically excluded from the definition. *Id.* The incidental movement of the structure upon water or resting partially or entirely on the bottom will not preclude a structure from being classified as a floating structure. *Id.*

¹⁸ FLA. STAT. § 327.53(3) (2006).

¹⁹ FLA. STAT. § 327.53(1) (2006).

²⁰ *See* WILLIAM H. ROGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER, ch. 4.39 (1986).

²¹ Excerpt from Marine Safety Manual, Vol. II, §B, Ch. 6(F)(1), *Marine Sanitation Device (MSD) Regulations*, www.uscg.mil/hq/g-m/nmc/pubs/msm/vol2.htm (last visited Apr. 10, 2007).

²² 33 U.S.C. § 1322(c)(2) (2007) (providing discretion to the Secretary of the department in which the Coast Guard is operating [the Department of Transportation in time of peace, the Department of Defense in time of war], after consultation with the [EPA] Administrator, to “distinguish among classes, types, and sizes of vessels as well as between new and existing vessels”).

houseboat, then the state regulations would apply instead of the federal regulations. Other vessel classifications can be made by the Secretary of Transportation, after consultation with the EPA Administrator, in order to “waive applicability of standards and regulations as necessary or appropriate for such classes, types, and sizes of vessels.”²³

A. Existing Vessels

Existing vessels are defined as any vessel on which construction was initiated before January 30, 1975.²⁴ The performance standards for existing vessels became effective five years after promulgation of regulations for MSDs.²⁵ Thus, the standards promulgated on January 30, 1975 did not take effect for existing vessels until January 30, 1980.

B. New Vessels

A new vessel is “any vessel on which construction was initiated on or after January 30, 1975.”²⁶ The standards applicable to new vessels became effective two years after promulgation of the standards.²⁷ Thus, new vessels did not have to comply with federal regulation of MSDs until January 30, 1977.

C. Public Vessels

A public vessel is defined as “a vessel owned or bareboat chartered and operated by the United States²⁸, by a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.”²⁹ For instance, a state owned ferry that operated for pecuniary purposes by charging user fees would not be a public vessel. Vessels that are used in commerce are “in the business of transporting property for compensation or hire, or in transporting property in the

²³ 33 U.S.C. § 1322(c)(2) (2007). The Secretary may also waive standards and regulations for individual vessels as necessary or appropriate upon individual application for such waiver. 33 U.S.C. § 1322(c)(2) (2007).

²⁴ 40 C.F.R. § 140.1(f) (2007); 33 C.F.R. § 159.3 (2007). The federal statute defines existing vessel as, “every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the navigable waters, the construction of which is initiated before promulgation of standards and regulations under this section.” 33 U.S.C. § 1322(a)(2) (2007).

²⁵ 33 U.S.C. § 1322(c)(1)(A) (2007).

²⁶ 40 C.F.R. § 140.1(e) (2007); 33 C.F.R. § 159.3 (2007). A new vessel was also defined as “every description of watercraft or other artificial contrivance used or capable of being used as a means of transportation on the navigable waters,” but applies to vessels on which construction was initiated after promulgation of standards and regulations. 33 U.S.C. § 1322(a)(1) (2007).

²⁷ 33 U.S.C. § 1322(c)(1)(A) (2007).

²⁸ Vessels owned by the United States are subject to the statute, however, may be exempted upon a finding by the Secretary of Defense that compliance would not be in the interest of national security. The standards applicable to vessels owned by the United States are promulgated by the Secretary of Defense, not the Environmental Protection Agency. *See* 33 U.S.C. § 1322(d) (2007).

²⁹ 33 U.S.C. § 1322(a)(3) (2007); 33 C.F.R. § 159.3 (2007).

business of the owner, lessee, or operator of the vessel.”³⁰ Therefore, marine sanitation provisions in section 312 of the Clean Water Act may be applicable to public vessels depending on the extent to which the vessel is used for commerce.

D. Houseboats

Federal law preempts state regulation of the design, manufacture, or installation or use of any MSD regulated under Section 1322.³¹ The purpose of the federal preemption was to provide uniformity throughout the United States, in regards to MSD requirements, to allow for the free flow of commerce and travel.³² The legislature, however, recognized the need for states to protect the health, safety, and welfare of its citizen and drafted the federal statute to permit limited exceptions to the federal preemption, including the regulation of houseboats.

In regulating a houseboat, the state may regulate the design, manufacture, or installation or use of a MSD on a houseboat, if the regulations are more stringent than the federal standards.³³ The Florida statute on marine sanitation takes advantage of federal delegation of authority over houseboat MSD to the state. The statute, pursuant to authority granted in the federal statute, requires that all houseboats³⁴ be equipped with one permanently installed toilet to be connected to a Type III MSD.³⁵ Historically, installation of the Type III MDS did not become effective until October 1, 1996 for a houseboat on which a Type I MSD was installed before January 30, 1980.³⁶ Similarly for houseboats on which a Type II MSD was installed before July 1, 1994, a Type III device did not need to be installed until October 1, 1996.³⁷

III. Regulated Discharges

Except in the Great Lakes, only discharged sewage is regulated by the federal statute. The act of

³⁰ 33 U.S.C. § 1322(a)(10) (2007).

³¹ 33 U.S.C. § 1322(f)(1)(A) (2007).

³² *Lake Carriers' Ass'n v. Kelley*, 527 F.Supp. 1114, 1126 (D.C. Mich. 1981).

³³ 33 U.S.C. § 1322(f)(1)(A)&(B) (2007). Houseboat for the purposes of the federal statute is defined as a vessel used primarily as a residence for a period of time designated by the state and not used primarily as a means of transportation. 33 U.S.C. § 1322(f)(1)(B) (2007).

³⁴ A houseboat is defined by Florida law as a vessel used primarily as a residence for a minimum of 21 days during any 30-day period. FLA. STAT. § 327.02(13) (2006).

³⁵ FLA. STAT. § 327.53(2) (2006). The statutes also requires locking or securing of the MSD on the Type III MSD within waters of the state if the toilet on the houseboat is simultaneously connected to a Type III MSD and any other MSD or mechanism. *Id.*

³⁶ FLA. STAT. § 327.53(2)(b) (1999).

³⁷ *Id.*

discharging includes, but is not limited to “spilling, leaking, pumping, pouring, emitting, emptying, and dumping.”³⁸ Sewage includes both “human body wastes and wastes from toilets and other receptacles intended to receive or retain body wastes,” but excludes graywater as “discharge incidental to the normal operation of a vessel.”³⁹ Graywater is defined as “galley, bath, and shower water” and is not regulated under federal or Florida law.⁴⁰ In addition, neither trash nor garbage is regulated under the federal statute. Discharge of trash and garbage are instead dealt with by international law under MARPOL.⁴¹

By state statute, Florida regulates the discharge and disposal of sewage from vessels and floating structures. Discharge of raw sewage from vessels and floating structure is prohibited.⁴² Wastes from Type II MSDs are required to be disposed in an approved sewage pumpout facility⁴³, while waste from portable toilets are to be disposed in an approved waste reception facility.⁴⁴

IV. Regulated Entities

A. Manufacturers

Manufacturers are prohibited from selling any vessels equipped with toilet facilities unless the vessel is equipped with a certified or labeled MSD.⁴⁵ Manufacturers must properly label, design, test, and provide instructions for the operation, maintenance, and installation of MSDs.⁴⁶

³⁸ 33 U.S.C. § 1322(a)(9) (2007); 33 C.F.R. § 159.3 (2007).

³⁹ 33 U.S.C. § 1322(a)(6), (a)(12) (2007); 40 C.F.R. § 140.1(a) (2007). With respect to commercial vessels on the Great Lakes, the term “sewage” is also defined to include graywater. 33 U.S.C. § 1322(a)(6) (2007). Discharge incidental to the operation of a vessel does not include discharge of “rubbish, trash, garbage, or other such material discharged overboard.” 33 U.S.C. 1322(a)(12)(B)(i) (2007).

⁴⁰ 33 U.S.C. § 1322(a)(11) (2007).

⁴¹ See The International Convention for the Prevention of Pollution from Ships, 1973 (as modified by the Protocol of 1978 (MARPOL 73/78). MARPOL prohibits 1) discharge of any plastics into the territorial sea, 2) disposal of garbage in navigable waters of the United States and in all waters within three nautical miles of the nearest land, 3) disposal of dunnage(boxing and packing materials), lining and packing that floats within 25 miles from the nearest land in United States navigable water, 4) disposal of underground garbage within 12 miles from the nearest land in the United State navigable waters, and 5) disposal of garbage ground to less than one inch within three miles of the nearest land in United States navigable water. *Id.*

⁴² FLA. STAT. § 327.53(4)(a) (2006).

⁴³ FLA. STAT. § 327.53(4)(b) (2006).

⁴⁴ FLA. STAT. § 327.53(4)(c) (2006).

⁴⁵ 33 C.F.R. § 159.5 (2007)(including the offering for sale, distribution for sale, or resale of any vessel as selling). A manufacturer is defined as, “ any person engaged in manufacturing, assembling, or importing of marine sanitation devices or of vessels subject to the standards and regulations promulgated under Section 312 of the Federal Water Pollution Control Act [Clean Water Act].” 33 C.F.R. § 159.3 (2007).

⁴⁶ See 33 C.F.R.§§ 159.51 -.131(2007) (Subpart C Design, Construction, and Testing).

B. Operators

Regulations also prohibit the operation of a vessel installed with toilet facilities unless the vessel is equipped with certified or labeled MSD.⁴⁷ The MSD must be operable while the vessel is in operation.

V. Marine Sanitation Device Standards

A. Performance Standards

Section 312 of the Clean Water Act requires the Coast Guard to set performance standards for MSDs, taking into considering economic costs and the limits of available technology. These performance standards are to be designed to prevent discharge of untreated or inadequately treated sewage into navigable waters.⁴⁸ The implementing federal regulations provide for three types of MSDs that may be installed on vessels: Type I, Type II, or Type III. Each type of MSD must meet prescribed effluent limits under test conditions prior to certification.⁴⁹ Vessels 19.7 meters (65 feet) or less in length must be equipped with a Type I, II, or III MSD, while vessels that are greater than 19.7 meters in length must be equipped with a Type II or Type III MSD.⁵⁰ The distinctions of these types are discussed below.

1. Type I Marine Sanitation Device

Type I MSDs are designed as a flow-through devices that utilize maceration and chlorination to treat the sewage prior to discharging the sewage. The effluent limit for a Type I MSD requires that the discharge may not have a fecal coli form bacteria count greater than 1,000 per 100 milliliters nor any visible floating solids.⁵¹ As discussed below in subsection B, Type I MSDs may only be installed on vessels if the devices are properly labeled or certified.⁵²

2. Type II Marine Sanitation Device

Type II MSDs are also flow-through devices, but these devices use biological means (aerobic digestion) to treat the sewage. A Type II MSD treats sewage to a higher degree than a Type I through

⁴⁷ 33 C.F.R. § 159.7 (a)(1) & (2) (2007).

⁴⁸ 33 U.S.C. § 1322(b)(1) (2007). The Environmental Protection Agency promulgates performance standards, while the Coast Guard's Office of Marine Safety, Security and Environmental Protection devises regulations to implement and enforce the standards. The Coast Guard's Office of Marine Safety may be reached at (202) 267-2200.

⁴⁹ 33 C.F.R. § 159.53(a)-(c) (2007). For testing procedures see 33 C.F.R. § 159.123, 159.125, 159.126, 159.126(a) (2007).

⁵⁰ 33 C.F.R. § 159.5(a) & (b) (2007).

⁵¹ 33 C.F.R. § 159.3 (2007).

⁵² 33 C.F.R. § 159.5 (2007).

maceration, biological decomposition, and chemical additives. The disinfectants used, ammonia, chlorine and formaldehyde, can be harmful to aquatic life. The effluent limit for a Type II MSD requires that the discharge may not have a fecal coli form bacteria count greater than 200 per 100 milliliters nor suspended solids greater than 150 milligrams per liter.⁵³

3. Type III Marine Sanitation Device

There is no a quantitative effluent limit for a Type III MSD. Rather the regulations require Type IIIs to be designed to prevent overboard discharge of treated or untreated sewage or any waste derived from sewage.⁵⁴ Thus, Type III MSDs are often holding tanks, although vacuum collection, incineration, recirculation, and composting systems may also qualify as Type III MSDs.

Type III MSDs may have a through hull “Y” valve, but it may be opened only when the vessel is beyond U.S. territorial waters (three nautical miles). To secure the “Y” value in a no discharge position, the vessel operator must either remove the value handle or use a padlock or a non-releaseable wire-tie to comply with federal law.⁵⁵ Since Type III MSDs are designed to retain sewage until it may be disposed into a local advanced sewage treatment system, Type III MSDs may have the least environmental impact. Type IIIs reduce the need for on-board use of potentially toxic tank treatment chemicals and ensure that the discharge is being treated properly at the regulated pumpout stations.

Each MSD must be legibly marked with the name of the manufacturer, name and model number, month and year of manufacture, serial number, identification of the type of device (I - III), and certification data. This information must be on a nameplate attached to the device or in lettering on the device.⁵⁶

B. Certification and Labeling Requirements

Prior to selling any MSD, a manufacturer must certify its MSD. The first step in certification is the application process. The manufacturer must apply to a recognized facility⁵⁷ and include information regarding manufacturing process, design, and operation of the device.⁵⁸ The recognized facility

⁵³ 33 C.F.R. § 159.3 (2007).

⁵⁴ 33 C.F.R. § 159.3 (2007).

⁵⁵ 33 C.F.R. § 159.7 (2007).

⁵⁶ 33 C.F.R. § 159.55(a)&(b) (2007).

⁵⁷ A recognized facility is defined as, “any laboratory or facility listed by the Coast Guard as a recognized facility under this part.” 33 C.F.R. § 159.3 (2007). It is “an independent laboratory accepted by the Coast Guard under 46 C.F.R. § 159.010 to perform the tests and inspections required under this part. A list of accepted laboratories is available from the Commandant (G-MSE-4). *See* 33 C.F.R. § 159.201 (2007).

⁵⁸ 33 C.F.R. § 159.14 (a-d) (2007). The manufacturer must also provide a sample device, sample materials, and test results.

then gives notice to the Coast Guard of the application, evaluates the information submitted by the manufacturer, tests the device, and submits its findings to the Coast Guard's Commandant.⁵⁹ If the device meets all the requirements the Coast Guard will certify the device, notify the manufacturer and recognized facility, and provide a certification number for the device.⁶⁰ A manufacturer whose certification has been denied may appeal the decision to the Commandant of the Coast Guard and have the device retested.⁶¹ If upon retesting the device fails to meet the requirements, the application is terminated.⁶²

After successful certification, the Coast Guard issues a letter authorizing the manufacturer to label each device with the manufacturer's certification number.⁶³ Letters of authorization are valid for five years, unless, because the manufacturer is not manufacturing the substantially same device as certified, the Coast Guard suspends, withdraws, or terminates the authorization.⁶⁴ Letters may also be reissued upon written request.⁶⁵

A MSD may be considered certified without having to go through the formal process of certification if it meets certain requirements. If a Type III device was installed before January 30, 1975, it is automatically considered certified, provided it is in compliance the performance standards for Type III MSDs.⁶⁶ In addition, any person who owns a marine sanitation device manufactured prior to January 30, 1976 may apply to the Commandant of the U.S. Coast Guard for certification.⁶⁷ Finally, a Type III device will be considered certified without going through the certification process if "it is used solely for the storage of sewage and flushwater at ambient air pressure and temperature⁶⁸" and is designed to prevent the overboard discharge of treated or untreated sewage or any waste derived from sewage.⁶⁹

VI. Regulated Waters

⁵⁹ 33 C.F.R. § 159.14(d) & 159.15(a) (2007).

⁶⁰ 33 C.F.R. § 159.15(b)-(c) (2007).

⁶¹ 33 C.F.R. § 159.15(c)-(d) (2007).

⁶² 33 C.F.R. § 159.15(c)-(d) (2007).

⁶³ 33 C.F.R. § 159.16(a) (2007).

⁶⁴ 33 C.F.R. § 159.16(c) & (d) (2007)

⁶⁵ 33 C.F.R. § 159.16(c) (2007).

⁶⁶ 33 C.F.R. § 159.12(b) (2007). Such devices may not be labeled, rather a list is kept by the Coast Guard that identifies all devices certified under § 159.12. *See* 33 C.F.R. § 159.12(d) & (e) (2007).

⁶⁷ 33 C.F.R. § 159.12(c) (2007). The applicant must demonstrate that the device meets 33 C.F.R. § 159.53 by " (1) Evidence that the device meets State standards at least equal to the standards in § 159.53 [performance standards], or (2) Test conducted under this part by a recognized laboratory, or (3) Evidence that the device is substantially equivalent to a device certified under this section, or (4) A Coast Guard field test if considered necessary by the Coast Guard." 33 C.F.R. § 159.12(c)(1-4) (2007). Devices certified under this process may not be labeled under § 159.16. *See* 33 C.F.R. § 159.12(e) (2007).

⁶⁸ 33 C.F.R. § 159.12a(b)(1-2) (2007).

⁶⁹ 33 C.F.R. § 159.53(c) (2007).

The federal regulations distinguish among types of water bodies and apply different discharge standards to each type of designated water body. These standards apply only to vessels on which a MSD has been installed.⁷⁰ This zoning schematic imposes effluent limitation of regulated vessels, in addition to the performance standards required for certification and labeling. For instance, in freshwater zones and in state designated no discharge zones discharge is prohibited. In coastal waters out to three nautical miles discharge is allowed if the discharge meets effluent standards. In waters outside three nautical miles from shore discharge is permitted, subject to the rules imposed by international law under MARPOL.

A. No Discharge Zones

The discharge of treated and untreated sewage may be prohibited by the EPA in certain water bodies through regulation or state designation.⁷¹ In such no discharge zones, vessel operators are prohibited from discharging treated or untreated sewage. To prevent discharge, vessels operators must secure all MSDs to prevent sewage discharge.⁷²

1. Freshwater No Inlet Zones

The EPA has established no discharge zones in freshwater lakes, freshwater reservoirs, or other freshwater impoundments whose inlets or outlets prevent ingress or egress of regulated vessels and in rivers not capable of navigation by interstate vessel traffic (freshwater no inlet zones).⁷³ MSDs used in these freshwater no inlet zones must be designed and operated to prevent the discharge of treated and untreated sewage or of any waste derived from sewage.⁷⁴

A vessel may carry aboard a flow-through treatment device in freshwater no inlet zones, but the device must be secured as to prevent any discharges of sewage.⁷⁵ However, vessels equipped with flow-through devices at the time of the promulgation of this regulation (January 30, 1975) that do not have a fecal coli form bacteria count greater than 1,000 per 100 milliliters nor discharge visible floating solids are exempt from the no discharge requirement and do not have to secure the flow-

⁷⁰ 40 C.F.R. § 140.2 (2007). The standard for new vessels became effective on January 30, 1977 and for existing vessels on January 30, 1980. Vessels owned and operated by the Department of Defense are subject to regulation by standards promulgated by the Secretary of Defense and become effective two and five years after the promulgation of the regulations for new and existing vessels, respectively. 40 C.F.R. § 140.3(b) (2007).

⁷¹ 33 U.S.C. § 1322(f)(3)(2007); 40 C.F.R. § 140.4 (2007).

⁷² 33 C.F.R. § 159.7(b) (2007). Methods for securing a Type I or II device include “closing the seacock and removing the handle”; “padlocking the seacock in the closed position”; “using a non-releasable wire-tie to hold the seacock in the closed position”; or “locking the door to the space enclosing the toilets with a padlock or door handle key lock”. 33 C.F.R. § 159.7(b)(1-4) (2007). Acceptable methods for securing a Type III device include “closing each valve leading to an overboard discharge and removing the handle”; “padlocking each valve leading to an overboard discharge in the closed position”; or “using a non-releasable wire-tie to hold each valve leading to an overboard discharge in the closed position”. 33 C.F.R. § 159.7(c)(1-3) (2007).

⁷³ 33 C.F.R. § 140.3(a)(1) & (2) (2007).

⁷⁴ 40 C.F.R. § 140.3(a)(1) (2007).

⁷⁵ 40 C.F.R. § 140.3(a)(1) (2007).

through to prevent overboard discharge of sewage for the operable life of the device.⁷⁶

2. State Established No Discharge Zones

Section 312(f)(3) and (4) of the Clean Water Act provides statutory authority for the establishment of two basic types of state designated no discharge zones: a complete prohibition Zone (subdivided into two types of complete prohibition zones based on the purpose of the prohibition) and a drinking water intake no discharge zone. Within these zones, an owner or operator of a vessel must secure MSDs to prevent discharge of treated or untreated sewage.⁷⁷

a. Complete Prohibition Zones

Upon written application to and approval by the EPA, a state may designate all or portions of waters within the state as complete prohibition zones.⁷⁸ In a complete prohibition zone, a state can prohibit the discharge of treated and untreated sewage.⁷⁹ There are two types of state designated complete prohibition zones authorized by federal statute upon approval by the EPA. The first type of zones may be designated for some or all of the state waters that the state determines require additional environmental protection (environmental protection zones).⁸⁰ The second type of complete prohibition zone may be designated for specified waters (pristine waters) that the state determines need protection and enhancement (pristine water zones).⁸¹

i. Environmental Protection Purpose

The complete prohibition designation for environmental protection purposes is governed by section 312(f)(3) of the Clean Water Act and 40 C.F.R. § 140.4(a). Under this application process, a state must prove that the “protection and enhancement of the quality of some or all of the waters within such State require greater environmental protection” through a prohibition zone.⁸² After the state applies for a designation⁸³, the EPA Administrator has 90 days to make a determination based on

⁷⁶ 40 C.F.R. § 140.3(c) (2007).

⁷⁷ 33 C.F.R. § 159.7(b) (2007). Methods for securing the device include “closing the seacock and removing the handle”; “padlocking the seacock in the closed position”; “using a nonreleaseable wire-tie to hold the seacock in the closed position”; or “locking the door to the space enclosing the toilets with a padlock or door handle key lock”. 33 C.F.R. § 159.7(b)(1-4) (2007).

⁷⁸ 40 C.F.R. § 140.4(a) (2007).

⁷⁹ 40 C.F.R. § 140.4(a) (2007).

⁸⁰ 33 U.S.C. § 1322(f)(3) (2007); 40 C.F.R. § 140.4(a) (2007).

⁸¹ 33 U.S.C. § 1322(f)(4)(A) (2007); 40 C.F.R. § 140.4(b) (2007).

⁸² 33 U.S.C. § 1322(f)(3) (2007).

⁸³ 40 C.F.R. § 140.4(a) (2007) provides that the application must include the following:

whether “adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels using such waters are reasonably available.”⁸⁴ The EPA looks to the state’s water quality standards to determine whether the waters are designated to require stricter standards than those required by federal law.⁸⁵ In addition, the EPA prefers to see strong education and enforcement programs in place prior to approving any designation.⁸⁶ Once the EPA has approved the state designation, the state may completely prohibit discharge in the designated area.

Currently several states that have implemented complete prohibition zones including California, Florida, Massachusetts, Minnesota, Michigan, Missouri, New Hampshire, New York, New Mexico, Wisconsin, Texas, Rhode Island, Nevada, and Vermont. In Michigan, the EPA found there were reasonably available, adequate pumpout stations along Lake Michigan so that they could implement a complete prohibition zone.⁸⁷ Michigan first attempted to prohibit the discharge of untreated and treated sewage within its state boundaries through enactment of a statute prohibiting such discharge.⁸⁸ The statute came into effect prior to any of the dates in the federal regulations, and Michigan (through its Governor) applied for EPA to establish regulations banning such discharge in Michigan waters.⁸⁹ The EPA denied Michigan’s first request because it did not contain “substantiating information” regarding the pumpout facility availability.⁹⁰ Michigan’s second application, however, stated that Michigan had 49 public marinas, 104 public commercial marinas, 19 private marinas, 200 pumpout facilities, and that in areas with no pumpout facilities a tank hauler

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1. A certification that the protection and enhancement of the waters described in the petition require greater environmental protection than the applicable Federal standard;
 2. A map showing the location of commercial and recreational pump-out facilities;
 3. A description of the location of pump-out facilities within waters designated for no discharge;
 4. The general schedule of operating hours at the pump-out facilities;
 5. The draught requirements on vessels that may be excluded because of insufficient water depth adjacent to the facility;
 6. Information indicating that treatment wastes from such pump-out facilities is in conformance with Federal law; and
 7. Information on vessel population and vessel usage of the subject waters.

⁸⁴ 40 C.F.R. § 140.4(a) (2007).

⁸⁵ See General Counsel of the Environmental Protection Agency, June 24, 1971 (1971 WL 18388 (E.P.A.G.C.)).

⁸⁶ See *Rhode Island Designates All Coastal Waters as No Discharge Areas*, NOAA COASTAL SERVICES CENTER May/June 1999, http://www.csc.noaa.gov/magazine/back_issues/mayjun99/rhode_isl.html (last visited Jun 25, 2007) (quoting Ann Rodney, environmental protection specialist for the EPA’s Water Quality Unit).

⁸⁷ *Lake Carriers*, 527 F. Supp. at 1122.

⁸⁸ See The Michigan Watercraft Pollution Control Act of 1970, Mich. Comp. Laws. Ann. §§ 323.221-.342 (repealed 1990, 1995).

⁸⁹ *Lake Carriers*, 527 F. Supp. at 1116.

⁹⁰ *Id.*

was available within a radius of 15-25 miles.⁹¹ The EPA found that through these facts Michigan had proved it had reasonably available, adequate facilities for the safe and sanitary removal and treatment of sewage from vessels, and thus approved the application.⁹²

Rhode Island became the first state to designate its entire 410 miles of coast line as a complete prohibition zone.⁹³ The designation process in Rhode Island began twelve years ago, after Rhode Island began closing shellfish beds due to poor water quality.⁹⁴ While some suggested closing marinas could decrease boat traffic, Rhode Island believed the discharge prohibition option was viable alternative to marina closures.⁹⁵ To pursue this option, Rhode Island used grant money from the Clean Vessel Act to build new pumpout facilities.⁹⁶ Then, after gaining trade support, implementing education and enforcement programs⁹⁷, and enacting a state law regulating improper use of MSDs, Rhode Island applied for designation.⁹⁸ EPA approved the designation in August of 1998, citing the implementation of education, enforcement, and community participation programs as reasons for the approval.⁹⁹ Since the designation, use of pumpout facilities has increased and water quality has improved along Rhode Island's coast.¹⁰⁰

Currently, Monroe County has drafted an ordinance that prohibits the discharge of sewage using the EPA's designation procedures.¹⁰¹ In early July, the ordinance was presented to Florida's Governor and EPA Region 4 for approval.¹⁰² The ordinance divides the waters in Monroe County into several zones. Once a land based pump-out station becomes available within two miles by boat of the zone's closest approach to the individual no discharge zone or when a mobile pump-out vessel providing at least weekly service is within the area of the no discharge zone, the ordinance becomes effective for that zones.¹⁰³ Drafting the ordinance to go into effect only upon availability of pumpout stations,

⁹¹ *Id.* at 1116 - 17.

⁹² *Id.* at 1117.

⁹³ *See Rhode Island Designates All Coastal Waters as No Discharge Areas*, NOAA COASTAL SERVICES CENTER May/June 1999, http://www.csc.noaa.gov/magazine/back_issues/mayjun99/rhode_isl.html (last visited Jun 25, 2007).

⁹⁴ *See id.*

⁹⁵ *See id.*

⁹⁶ *See id.*

⁹⁷ One program was designed so that every time a boater used a pumpout facility he or she was provided a ticket that could be traded for boating gear or prizes. Rhode Island revamped their enforcement by making inspection of MSDs part of any routine boat traffic stop. *See id.*

⁹⁸ *See id.*

⁹⁹ *See id.* (Quoting Ann Rodney, environmental protection specialist for the EPA's Water Quality Unit).

¹⁰⁰ *See id.*

¹⁰¹ *See Attached Ordinance.*

¹⁰² Interview with George Garrett, Director of Marine Resources, Monroe County Planning Department (June 24, 1999).

¹⁰³ *See Attached Ordinance* § 4(a) & (b).

Monroe County hopes to avoid EPA disapproval of the ordinance.

ii. Pristine Water Purpose

A state may also, under section 312(f)(4)(A) of the Clean Water Act and 40 C.F.R. § 140.4(b), designate complete prohibition zones for pristine waters that require protection and enhancement. Under this application process, the EPA does not base its approval on whether adequate and available pump-out facilities exist.¹⁰⁴ Instead, the EPA Administrator looks to the facts alleged in the state's application to determine whether a prohibition is needed.¹⁰⁵ The application must specify the particular waters or portions thereof for which the prohibition is desired.¹⁰⁶ It must also identify water recreation areas, drinking water intakes, aquatic sanctuaries, fish-spawning and nursery areas, and areas of intensive boating activities.¹⁰⁷ The EPA administrator, upon making a finding that the areas requires protection must propose regulations to prohibit discharge in that area.¹⁰⁸ Currently, only one area in the country is designated by federal regulations as a complete prohibition area based on pristine water protection, the Boundary Waters Canoe Area in Minnesota.¹⁰⁹

Thus, states may establish complete prohibition zones, subject to approval by EPA for either environmental purposes or pristine water protection purposes. Under the environmental purposes designation under section 312(f)(3), the EPA Administrator looks to whether there are adequate pump-out facilities available and upon approving the designation states or political subdivisions thereof are authorized to prohibit discharge by state statute or ordinance. Under the pristine water protection purpose designation, however, the EPA Administrator does not look at the availability of pump-out stations and upon approval of the application the EPA regulates the discharge prohibition.

b. Drinking Water Intake No Discharge Zones

The second type of state designation process provides for discharge prohibitions around drinking water intakes. These designations are aimed at maintaining safe drinking water supplies for the public. To initiate the process, the state must make a written application for a drinking water

¹⁰⁴ See *Marine Sanitation Device Standard*, Environmental Protection Agency, www.epa.gov/fedregstr/EPA-WATER/1996/October/Day16/pr~21038.txt.html (last visited May 3, 2007).

¹⁰⁵ 40 C.F.R. § 140.4(b) (2007).

¹⁰⁶ 40 C.F.R. § 140.4(b) (2007).

¹⁰⁷ 40 C.F.R. § 140.4(b) (2007).

¹⁰⁸ 40 C.F.R. § 140.4(b) (2007). If the Administrator denies the application, he must state the reasons why. If the Administrator approves the complete prohibition of any discharge in all or any part of the waters listed in the state's application he must publish notice of his findings with a notice for proposed rule making, then proceed according to 5 U.S.C. 553. If the Administrator finds the waters requiring prohibitions are more restricted or expanded than the State's findings, he must explain the differences in the scope of the area. 40 C.F.R. § 140.4(b) (2007).

¹⁰⁹ 40 C.F.R. § 140.4(b)(1)(i) (2007).

intake no discharge zone.¹¹⁰ The EPA then makes a determination of whether or not a complete prohibition in the drinking water intake no discharge zone is appropriate. If the EPA administrator concludes such a zone is appropriate, then the EPA proposes a rule to prohibit discharge in that area and proceeds with the rulemaking process.¹¹¹ Currently two portions of the Hudson River in New York are designated drinking water intake no discharge zones by federal regulation.¹¹²

B. Coastal Zones

In all other waters (waters not included in a freshwater no inlet zone or state designated discharge prohibition zone) out to three nautical miles, the federal regulations require that MSDs are to be designed and operated to either retain, dispose of, or discharge sewage consistent with effluent requirements.¹¹³ Unless otherwise prohibited, discharge is permitted in coastal waters and estuaries, the Great Lakes and interconnected waterways, freshwater lakes and impoundments accessible through locks, and other flowing waters that are navigable by regulated vessels.¹¹⁴

In waters where discharge is permitted, the effluent limit prohibits fecal coli form bacteria counts greater than 1,000 per 100 milliliters and visible floating solids.¹¹⁵ After January 30, 1980 (subject to two exceptions), the effluent limit was lowered to prohibit discharge of fecal coli form bacteria counts greater than 200 per 100 milliliters and no suspended solids greater than 150 mg/l.¹¹⁶ The two exceptions to the revised, stricter standard are that existing vessels equipped with certified MSDs on or before January 30, 1978 and new vessels on which construction was initiated before January 31, 1980 and which are equipped with certified MSDs before January 31, 1980 are not required to abide by the stricter effluent standard.¹¹⁷

Thus, in waters outside three nautical miles of the coast vessels may operate and discharge without any marine sanitation devices. Since Type III MSDs are mere holding tanks, the Type III must be secured in a no discharge position in all waters out to three nautical miles. Type I and Type II MSDs may discharge out to three nautical miles (if not in a prohibition zone) if the effluent limit is met (no coli form counts greater than 200 per 100 milliliters and no suspended solids greater than 150).¹¹⁸

VII. Enforcement

The Federal statute provides enforcement measures for ensuring compliance with MSD performance

¹¹⁰ 33 U.S.C. § 1322(f)(4)(B) (2007); 40 C.F.R. § 140.4(b) (2007).

¹¹¹ 40 C.F.R. § 140.4(c)(2)-(3) (2007).

¹¹² 40 C.F.R. § 140.4(c)(4)(i) (2007).

¹¹³ 40 C.F.R. § 140.3(a)(2) (2007).

¹¹⁴ 40 C.F.R. § 140.3(a)(2) (2007).

¹¹⁵ 40 C.F.R. § 140.3(a)(2) (2007).

¹¹⁶ 40 C.F.R. § 140.3(d) (2007).

¹¹⁷ 40 C.F.R. § 140.3(d), (e), & (f) (2007).

¹¹⁸ Subject to the two grandfathering provisions discussed *supra* Section V (b).

standards and effluent limits.¹¹⁹ Manufacturers who violate the federal standards for MSDs are subject to a civil penalty not to exceed \$5,000 per violation.¹²⁰ Operation of a regulated vessel without the proper MSD can result in a maximum penalty of \$2,000 per violation.¹²¹ Each violation is a separate offense¹²² over which the district courts of the United States have jurisdiction.¹²³

The provisions of the federal statute may be enforced by the Coast Guard or State using law enforcement officers or personnel of the departments responsible for boating enforcement.¹²⁴ In addition, all vessels, except public vessels, may be boarded and inspected by personnel authorized to enforce the statutory provisions.¹²⁵ A marine inspector may take an effluent sample to a qualified wastewater laboratory and report the results to the Coast Guard. The effluent samples can form the basis of an enforcement action, thus only qualified personnel should take, transport, or analyze the MSD effluent.

Violations of the state statute are considered noncriminal infractions and each violation is counted as a separate offense.¹²⁶ The fine is \$250 for each violation of the discharge prohibitions and \$50 for failure to have the proper equipment installed.¹²⁷ Proceeds from civil penalties are deposited in the Marine Resources Conservation Trust Fund.¹²⁸ In addition, a vessel or floating structure that is in violation of the state statute is deemed a nuisance and hazard to public safety and health.¹²⁹ The owner or operator then has thirty days to remove the vessel from the waters of the state or correct the violation before authorized law enforcement officers¹³⁰ are required to apply to the appropriate court for an order of removal of the vessel or floating structure. The removal is at the owner's expense.¹³¹

¹¹⁹ See WILLIAMS H. ROGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER, ch. 4.39 (1986).

¹²⁰ 33 U.S.C. § 1322(j) (2007).

¹²¹ 33 U.S.C. § 1322(j) (2007).

¹²² 33 U.S.C. § 1322(j) (2007).

¹²³ 33 U.S.C. § 1322(i) (2007).

¹²⁴ 33 U.S.C. § 1322(k) (2007).

¹²⁵ 33 U.S.C. § 1322(l) (2007).

¹²⁶ FLA. STAT. § 327.53(6)(a) (2006).

¹²⁷ FLA. STAT. § 327.73(1)(q)&(r) (2006).

¹²⁸ FLA. STAT. § 327.53(6)(b) (2006). The funds are to be used “to implement, administer, and enforce this act; to construct, renovate, or operate pumpout stations and waste reception facilities; and to conduct a program to educate vessel operators about the problem of human body waste discharges from vessels and inform them of the location of pumpout stations and waste reception facilities.” FLA. STAT. § 327.53(6)(b) (2006).

¹²⁹ FLA. STAT. § 327.53(7) (2006).

¹³⁰ Authorized law enforcement officers include Game and Fresh Water Fish Commission and its officers, the sheriffs of the various counties and their deputies, and any other authorized law enforcement officer. See FLA. STAT. §§ 327.53(7); 327.70(1) (2006).

¹³¹ FLA. STAT. § 327.53(7) (2006).

Enforcement at the state or federal level is difficult. By creating millions of mini-sewage treatment plants around the country in the use of MSDs on vessels, proper maintenance and operation is hard to monitor. Whether a violator is caught is based largely on the timing of catching a violator and the vigor with which the agencies charged with enforcement decide to pursue violators. Also, enforcement officers must take effluent samples to prove violations, impeding speedy and accurate enforcement.

IX. Conclusion

While the Federal law successfully creates a uniform, national standard for MSDs, thereby promoting water quality and freedom of commerce, it also imposes somewhat confusing and complex federal and state regulations on boaters. The federal system provides that vessels with toilets must have MSDs. The law then requires those MSDs to meet performance standards prior to certification and installation. Once installed, the MSDs must be maintained in operable condition so as to comply with the performance standards. In addition to performance standards, boaters may not be able to discharge depending on what waters the vessel is operating. For instance, in isolated, non-connected lakes, rivers, and freshwater bodies discharge is prohibited. Discharge is also prohibited in state designated areas. In all other waters out to three nautical miles, the regulations provide effluent limits that are stricter than the performance standards. Thus, an Type III MSD can not discharge in these areas and Type I and II MSDs must meet the stricter effluent limits in order to discharge. Outside three nautical miles, a boater may discharge treated or untreated sewage. Adherence to the regulations may vary greatly in different parts of the country based on availability of pump-out stations, public education efforts, and boater willingness to comply.