

Calendar No. 589

110TH CONGRESS }
2d Session }

SENATE

{ REPORT
{ 110-269

BALLAST WATER MANAGEMENT ACT OF
2007

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

ON

S. 1578



MARCH 3, 2008.—Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

69-010

WASHINGTON : 2008

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

DANIEL K. INOUE, Hawaii, *Chairman*

TED STEVENS, Alaska, *Vice-Chairman*

JOHN D. ROCKEFELLER IV, West Virginia	JOHN McCAIN, Arizona
JOHN F. KERRY, Massachusetts	KAY BAILEY HUTCHISON, Texas
BYRON L. DORGAN, North Dakota	OLYMPIA J. SNOWE, Maine
BARBARA BOXER, California	GORDON H. SMITH, Oregon
BILL NELSON, Florida	JOHN ENSIGN, Nevada
MARIA CANTWELL, Washington	JOHN E. SUNUNU, New Hampshire
FRANK R. LAUTENBERG, New Jersey	JIM DEMINT, South Carolina
MARK PRYOR, Arkansas	DAVID VITTER, Louisiana
THOMAS CARPER, Delaware	JOHN THUNE, South Dakota
CLAIRE McCASKILL, Missouri	ROGER F. WICKER, Mississippi
AMY KLOBUCHAR, Minnesota	

MARGARET CUMMISKY, *Staff Director and Chief Counsel*

LILA HELMS, *Deputy Staff Director and Policy Director*

JEAN TOAL EISEN, *Senior Advisor and Deputy Policy Director*

CHRISTINE KURTH, *Republican Staff Director and General Counsel*

PAUL J. NAGLE, *Republican Chief Counsel*

MIMI BRANIFF, *Republican Deputy Chief Counsel*

Calendar No. 589

110TH CONGRESS }
2d Session }

SENATE

{ REPORT
{ 110-269

BALLAST WATER MANAGEMENT ACT OF 2007

—————
MARCH 3, 2008.—Ordered to be printed
—————

Mr. INOUE, from the Committee on Commerce, Science, and
Transportation, submitted the following

REPORT

[To accompany S. 1578]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 1578) to amend the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to establish vessel ballast water management requirements, and for other purposes, having considered the same, reports favorably thereon with an amendment (in the nature of a substitute) and recommends that the bill (as amended) do pass.

PURPOSE OF THE BILL

The purpose of S. 1578 is to amend the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA) and provide an effective, comprehensive, and uniform national approach for addressing the introduction and spread of aquatic nuisance species from ballast water and other ship-borne vectors. The bill would provide additional mandates and authorities to the United States Coast Guard (Coast Guard), the lead Federal agency for this program under the NANPCA. S. 1578 would also provide implementing legislation for the International Convention for the Control and Management of Ships' Ballast Water and Sediments, adopted by the International Maritime Organization in 2004. The bill includes authorizations of \$50 million in annual appropriations for fiscal year (FY) 2008 through FY 2012 for the Coast Guard to implement the legislation. The bill also authorizes \$5 million for FY 2008 through FY 2012 in additional annual appropriations for the Federal Ballast Water Demonstration Project to support development of innovative technologies to address ballast water, sediment, and other vessel sources of aquatic nuisance species.

BACKGROUND AND NEEDS

The United States Commission on Ocean Policy (Commission) identified ballast water as a major pathway for introduction of aquatic nuisance species. Ships carry ballast water to aid in stability and structural integrity. Ships will take on ballast water in one port, and carry such ballast to other ports, where it is discharged into harbors—along with non-native species that are contained in the ballast water. Some of these organisms may thrive in their new environment, becoming invasive and destructive to local ecosystems. The only practice now required to address this issue—exchanging ballast water in the open ocean—has proven to be only partially effective. Because open ocean ballast water exchange can be a dangerous operation, a safety exemption is allowed for this practice. The Commission recognized that there are other vectors for aquatic nuisance species but made its strongest recommendations on improving the Coast Guard's ballast water management program, including the adoption of uniform, mandatory national standards for ballast water treatment.

It has been estimated that between 7,000 and 10,000 aquatic species travel around the globe each day in the ballast water of cargo ships. Vessels discharge more than two billion gallons of ballast water into U.S. waters each year. Aquatic nuisance species may be introduced to the United States from foreign ports, or may be transferred from one U.S. port to another through coastal trade. While ballast water is regarded as the most significant vector for ships in transporting aquatic nuisance species, ships can transfer aquatic nuisance species in other ways. These include transport on equipment, such as anchors and propellers, in the sediment of ballast tanks, and on the external surfaces of hulls.

Virtually all coastal and Great Lakes States have experienced damage from aquatic nuisance species. Some of the high profile invasions stemming from ballast water are the zebra mussel in the Great Lakes and the European green crab along the Pacific and Atlantic coasts. Other examples of significant impacts from aquatic nuisance species from around the United States include: (1) the non-native Asian clam, which altered the ecology of San Francisco Bay in the 1980's due to its efficiency at reproducing and filtering the native plankton, (2) the Asian whelk, which has established a foothold in the lower Chesapeake Bay and may threaten local oyster populations, and (3) the invasive sea squirt, *Didemnum spp.*, which has recently been found colonizing Georges Bank off of New England and has led to concerns over impacts on the local scallop fishery. Additionally, the black coral populations in Hawaii are showing signs of stress that may be linked to invasive snowflake coral. Even inland States are being impacted by the spread of aquatic nuisance species. As of October 2007, zebra mussels have been found in 25 States: Alabama, Arkansas, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin. Another eight States have identified zebra mussels on the hulls of boats brought into the State overland, but have not yet found wild populations of the organisms.

Damage to the U.S. environment and economy from aquatic nuisance species includes the loss of native and commercially important species, significant altering of native ecosystems, interference with industrial operations, and the cost of mitigation and removal efforts. Estimates of the costs to the U.S. economy from these invasions range from millions to billions of dollars per year. Millions of dollars have been spent annually in combating the zebra mussel invasion in the Great Lakes alone, including efforts to unclog intake pipes and prevent further infestation.

CURRENT REGULATIONS AND PROGRAMS

The NANPCA, as amended by the National Invasive Species Act of 1996 (NISA), requires ships to exchange their ballast water prior to entering the Great Lakes from outside the 200-mile Exclusive Economic Zone (EEZ). On July 28, 2005, the Coast Guard published regulations expanding the application of these requirements to cover entry into all U.S. ports. However, ballast water exchange is only partially effective and is often not carried out due to safety considerations. In addition, current authority does not address the introduction of non-native species from one U.S. port to another.

Numerous Federal, State, and international efforts are now focusing on the need to develop and utilize ballast water treatment technologies. However, the Coast Guard does not currently have sufficient authority to require such treatment technologies.

A number of States have passed or are considering their own ballast water laws. The focus of these laws has been on ballast water exchange, but some States have passed treatment requirements, in large part due to the lack of Federal regulations. The Committee finds that the current patchwork of State laws is inadequate to address this issue effectively. Moreover, a national program establishing uniform ballast water treatment requirements is needed to ensure that ships traveling from port to port are not subject to different State laws which would make compliance difficult, if not impossible, and could disrupt interstate commerce.

INTERNATIONAL MARITIME ORGANIZATION CONVENTION

In February 2004, the International Maritime Organization (IMO) adopted a new ballast water Convention, negotiated with U.S. leadership. This agreement set up a timetable for ships to meet new ballast water treatment standards. These standards would prohibit ships from discharging ballast water with a concentration of more than 10 organisms per cubic meter or greater. Until the performance standards are followed, vessels would be required to exchange their ballast water offshore. The Coast Guard has testified that the 10 organisms per cubic meter standard may not be sufficient to adequately treat ballast water and may be no more effective than ballast water exchange. At the IMO negotiations, the Coast Guard pushed for a standard of 0.01 organisms per cubic meter. The Coast Guard succeeded in including in the final IMO agreement a provision allowing countries to adopt more stringent domestic measures and has supported adopting a tougher standard than the IMO Convention in Federal law. The Convention must be ratified by at least 30 countries representing at least 35 percent of global shipping tonnage before it goes into effect; 10 countries have ratified the agreement thus far.

SUMMARY OF PROVISIONS

The bill would amend section 1101 of the NANPCA and provide an effective, comprehensive, and uniform national approach for addressing the introduction and spread of aquatic nuisance species from ballast water and other ship-borne vectors. The provisions of the bill would apply to vessels that are designed, constructed, or adapted to carry ballast water. Certain vessels are excluded from the provisions of the bill, including vessels of the Armed Services that comply with a comparable program.

Covered vessels would be required to have an approved ballast water management plan and keep a ballast water record book on board documenting their ballast water operations. Until required to adopt ballast water treatment technology, covered vessels would be required to conduct ballast water exchange in accordance with regulations prescribed by the Coast Guard. For vessels arriving from outside the EEZ, a vessel would be required to conduct exchanges at least 200 nautical miles from the nearest point of land, and for voyages within 200 nautical miles of the United States, a vessel would be required to conduct exchanges at least 50 nautical miles from the nearest land. In both cases, the exchanges would take place in water at least 200 meters in depth. Alternatively, vessels would be able to comply with this requirement by using ballast water treatment technology that is as effective as ballast water exchange, or implement the treatment requirements of the Act in an earlier timeframe. The Coast Guard would be required to establish guidelines within one year of enactment of the bill on what level of treatment would be at least as effective as ballast water exchange. The Committee views the timely completion of these guidelines as a priority.

A number of exceptions would be included in the requirements for ballast water exchange. First, the ballast water exchange requirements would not apply to discharges or uptakes of ballast water necessary to ensure the safety or stability of the vessel, its crew or its passengers. This exemption is important for certain vessel classes, such as many tug and barge operations. The Committee intends that the Coast Guard allow this exemption for specific vessels that are routinely unable to conduct exchange due to safety considerations, as opposed to allowing exemptions only on a voyage-by-voyage basis. Second, the provision would address the problem of requiring ballast water exchange for vessels on short coastal voyages by allowing vessel operators to seek a waiver if conducting exchange would cause the operator substantial business hardship, as determined by the Secretary. Third, an exemption would be provided for vessels operating exclusively between certain areas where the risk of introducing aquatic nuisance species is insignificant, including vessels operating exclusively within the Great Lakes and among the main Hawaiian islands. Additional common geographical areas exempted from exchange requirements could be added by the Coast Guard after consultation with other Federal agencies and with State concurrence.

The bill also would prohibit a vessel from discharging ballast water or sediment containing aquatic nuisance species into a National Marine Sanctuary or National Marine Monument. It also would provide a process by which Federal agencies and States can

establish no-discharge zones for areas that warrant greater protection.

The bill also would provide that existing regulations in place for the Great Lakes would not be superseded until the bill's requirements are fully phased in. It also would require the Coast Guard to adopt regulations for ships with no ballast on board.

The bill would require vessels to install ballast water treatment technologies by 2012 and would establish performance standards for those technologies. If no technology is available that would meet the bill's performance standards, vessels would be required to implement available technologies that, at a minimum, meet the weaker IMO standards. By allowing the use of IMO-compliant technologies, the bill also would assure that ballast water treatment is implemented in a shorter timeframe.

The 2012 deadline could be extended by two years if a feasibility review determines that no technologies exist that meet the statutory criteria. This feasibility review would be repeated if the compliance date had to be extended. The feasibility review would evaluate specific factors such as the technology's efficacy, whether a technology has an adverse impact on the environment, and cost effectiveness. If the Coast Guard determines that treatment technology exists that exceeds the performance standards, or that effective technology could be implemented earlier than the phase-in dates, the Coast Guard would be required to revise the standards and time frame for implementation accordingly.

The performance standards themselves follow the approach adopted by the IMO, using a concentration of organisms per volume of water. However, the standards in S. 1578 reflect a more effective target, based on expert testimony and research. Adopting more effective standards under U.S. law is consistent with the IMO agreement, which includes a provision, sought by the U.S. negotiators, assuring that parties can adopt more stringent measures than those included in the agreement. Under S. 1578, treatment would be required to achieve less than one living organism that is 50 or more micrometers in size per 10 cubic meters of water and less than one living organism that is less than 50 and more than 10 micrometers in size per 10 milliliters. By contrast, the IMO standards require treatment to a level of 10 living organisms per one cubic meter and one milliliter, respectively.

The bill would provide the Administrator of the EPA the authority to set revised performance standards in the future and to review the standards every three years to evaluate whether they should be strengthened. The bill also would provide States with a role in the establishment of concentrations of indicator microbes and viruses for the initial performance standards, standards for reception facilities, and future performance standards.

The bill would require the Coast Guard, in consultation with the EPA, to issue protocols and procedures for verifying the performance of ballast water treatment technologies and approving treatment equipment and systems for shipboard use. The bill would direct the Coast Guard to use Federal or non-Federal laboratories that meet standards that would be established by the Coast Guard for the purpose of evaluating and certifying ballast water treatment technologies and equipment. The Committee expects that the Coast Guard will develop efficient verification methodologies to

evaluate the technical capabilities of ballast water treatment technologies, such as monitoring the presence or the lack of certain substances in the ballast water as a surrogate for evaluating the content of ballast water samples.

The bill would require vessels to dispose of sediment from ballast tanks either more than 200 nautical miles from the nearest point of land, or into a reception facility, in accordance with the ballast water plan and regulations to be approved by the Coast Guard. The Administrator of the EPA would be required to promulgate regulations for the reception facilities, consistent with current EPA authority for land-based facilities. The bill also would require new vessels to be designed and constructed in a manner that minimizes the occurrence of sediment in ballast tanks.

The bill would allow vessels participating in a Coast Guard-approved pilot program to conduct ship-board testing of ballast water treatment technologies. The bill would authorize the Coast Guard to allow the vessels to use such technology for ten years, which should encourage more vessel operators to test new technologies in pilot programs. It would also authorize \$5,000,000 annually from FY 2008 through FY 2012 for the existing Federal Ballast Water Demonstration Project, which provides grants for research and development of innovative technologies for the management, treatment, and disposal of ballast water and sediment, ballast water exchange, and other vessel vectors of aquatic nuisance species.

The bill would include a provision that requires the President to establish a national rapid response plan to address the spread of aquatic nuisance species. The plan would provide for the coordination of actions among Federal, State, and local agencies to minimize damage from the introduction of aquatic nuisance species.

The bill would allow the Secretary to enter into cooperative management agreements with States, including arrangements for cooperative enforcement, inspection, research, and other provisions included in this Act. The Secretary would be authorized to provide grants to States to implement the agreements. A total of up to \$10 million would be available to States annually from FY 2008 through FY 2012.

The bill would provide a right of action by States against the Coast Guard and the EPA for a failure to promulgate regulations or take similar non-discretionary actions in a timely manner. This provision was added to address the concern of some observers that the Coast Guard otherwise would not make ballast water management a priority given its additional responsibility for homeland security.

The bill would include a savings clause to allow for State programs addressing aquatic invasive species, limited by the need for uniformity in some areas. States could regulate ballast water treatment and exchange, as long as they do not impose substantively different requirements from the Federal requirements, to ensure that a uniform national program is in place that is consistent with the international agreement. States could regulate all other aspects of ballast water management, including reporting, research and development, enforcement, and the imposition of fees, to the extent that such State requirements do not conflict with the Federal requirements.

The bill would provide that section 1101 of the NANPCA is the sole Federal authority with respect to preventing the introduction of aquatic nuisance species from ballast water and other ship vectors. This would not affect the operation of other Federal statutes, including the Clean Water Act, on other discharges from ships. The provision would not amend the Clean Water Act, nor would it alter how the Clean Water Act currently applies to the discharges covered by the bill. The Clean Water Act historically has never regulated the discharges covered in the bill. EPA exempted ballast water and other discharges incidental to the normal operation of a ship from the National Pollution Discharge Elimination System (NPDES) 34 years ago, and Congress adopted a separate Federal law to regulate invasive species from ballast water in 1990, the NANPCA, as amended by NISA in 1990. S. 1578 would amend and strengthen that existing regulatory framework.

This provision would be consistent with Congressional intent in adopting a savings clause for the Clean Water Act in the NANPCA. The NANPCA savings clause was not aimed at aquatic nuisance species, but at concerns that the ballast water exchange requirements of that legislation not result in discharges of oil from ballast water tanks. The clarification is necessary now to avoid confusion resulting from a recent Federal District Court case, *Northwest Environmental Advocates, et al, vs. the United States Environmental Protection Agency*, 2005 U.S. Dist. LEXIS 5373 (N.D. Cal. 2005). There, the court found that the EPA had erred in exempting ballast water from the NPDES program 34 years ago. Without this clarification, two completely separate Federal laws would apply to the same discharges, and States could adopt divergent laws for ships that travel to different ports. Moreover, the Clean Water Act's permit program, effective for regulating stationary sources, is not a desirable approach for regulating ballast water discharges from vessels. According to the EPA, the NPDES program has never applied to the discharges of pollutants from operational ships as they move from port to port. In fact, Congress has consistently addressed ship pollution through other statutory means.

The bill would authorize \$50,000,000 in annual appropriations for the Coast Guard for FY 2008 through FY 2012 to implement the legislation. In addition, the bill would authorize \$5,000,000 annually for FY 2008 through FY 2012 for development of innovative technologies through the Federal Ballast Water Demonstration Project.

LEGISLATIVE HISTORY

S. 1578 was introduced in the Senate on June 7, 2007, by Senator Inouye, co-sponsored by Senator Stevens, and referred to the Senate Committee on Commerce, Science, and Transportation. On September 27, 2007, the bill was considered by the Committee in an open Executive Session. Senator Inouye offered an amendment in the nature of a substitute, co-sponsored by Senator Stevens. By voice vote, the Committee adopted the amendment and ordered S. 1578 to be reported with an amendment in the nature of a substitute.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

S. 1578—Ballast Water Management Act of 2007

Summary: S. 1578 would require the U.S. Coast Guard (USCG) to establish new standards and procedures for controlling the spread of invasive species through ballast water (water that is carried in tanks by some ships to maintain balance). Assuming appropriation of the amounts authorized by the bill, CBO estimates that implementing S. 1578 would cost \$44 million in 2008 and \$260 million over the 2008–2012 period. (Of the amounts authorized, \$15 million would be spent after 2012.) CBO estimates that enacting S. 1578 could increase revenues (from violations of regulations on treating ballast water) and direct spending (from amounts collected as criminal penalties and spent from the Crime Victims Fund) by less than \$500,000 annually.

S. 1578 contains intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). The bill would require owners, operators, and manufacturers of certain public and private vessels equipped to carry ballast water to comply with requirements for treating such water. In addition, the bill would require public and private entities to respond to subpoenas and would preempt some state and local laws.

The aggregate costs of complying with those mandates are uncertain and would depend, in part, on future regulations. CBO estimates that compliance costs for the intergovernmental mandates would not exceed the annual threshold established in UMRA for such mandates (\$66 million in 2007, adjusted annually for inflation) due to the small number of public entities involved. Because the cost of the treatment systems would be substantial for private-sector entities, however, CBO estimates that the aggregate cost to those entities would exceed the annual threshold established by UMRA for private-sector mandates (\$131 million in 2007, adjusted annually for inflation).

Estimated cost to the Federal Government: The estimated budgetary impact of S. 1578 is shown in the following table. The costs of this legislation fall within budget functions 300 (natural resources and environment) and 400 (transportation).

	By fiscal year, in millions of dollars—				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Authorization Level	55	55	55	55	55
Estimated Outlays	44	52	54	55	55

Basis of estimate: For this estimate, CBO assumes that S. 1578 will be enacted near the beginning of fiscal year 2008 and that the authorized amounts will be appropriated for each year. Estimated outlays are based on historical spending patterns for similar programs.

S. 1578 would authorize appropriations of \$55 million for each of fiscal years 2008 through 2012. Under the bill, most of the funds

would be used by the USCG to promulgate new regulations aimed at reducing the spread of invasive species through ballast water. The regulations would establish standards and procedures that must be followed by vessel operators when treating or discharging ballast water and sediment. Of the amounts authorized for each year, up to \$10 million could be provided to states under cooperative agreements, and \$5 million would be authorized for grants to develop treatment technologies. The bill also would establish civil and criminal penalties for violating federal regulations.

Assuming appropriation of the authorized amounts, CBO estimates that implementing S. 1578 would cost \$44 million in 2008, \$260 million over the 2008–2012 period, and \$15 million after 2012. We also estimate that any increased revenues from civil and criminal penalties established by the bill, and direct spending of revenues from criminal penalties (which are deposited in and spent from the Crime Victims Fund), would not exceed \$500,000 in any year.

Estimated intergovernmental and private-sector impact: S. 1578 would impose intergovernmental and private-sector mandates, as defined in UMRA, on owners, operators, and manufacturers of certain vessels and others in the maritime industry. The aggregate costs of those mandates are uncertain because they would depend, in part, on regulations to be developed under the bill. CBO estimates that costs to governmental entities would not exceed the annual threshold established in UMRA for intergovernmental mandates (\$66 million in 2007, adjusted annually for inflation) due to the small number of such entities involved. Because the cost of the treatment systems for ballast water would be substantial for private-sector entities, however, CBO estimates that the aggregate cost to those entities would exceed the annual threshold established by UMRA for private-sector mandates (\$131 million in 2007, adjusted annually for inflation).

Mandates that apply to both public and private entities

Treatment of Ballast Water. Current regulations require U.S. and foreign vessels with ballast tanks that operate in the waters of the United States and that are bound for ports or places in the United States to report on and conduct activities relating to the discharge of ballast water. The bill would place additional requirements on owners and operators of those vessels, including installing new treatment systems and keeping additional records of their operations. In addition, manufacturers of such vessels built after 2011 would have to meet specific design and construction requirements for treatment systems to be eligible to operate in U.S. waters.

According to several industry experts and the U.S. Coast Guard, water treatment systems currently available cost between \$300,000 and \$1 million to install per ballast system. Some vessels that would need those systems may have as many as 20 ballast tanks, and each tank would have to be fitted with a treatment system. CBO estimates that the cost to public entities would be small because we expect that few vessels owned by state and local governments would be affected. CBO estimates, however, that the cost for the private sector would exceed the threshold for private-sector mandates in at least one year over the 2008–2012 period.

Subpoena Authority. The bill also would give the Secretary of Transportation the authority to subpoena public and private entities in the course of an investigation related to a vessel conveyance. State, local, and tribal governments, as well as private-sector entities, if subpoenaed by the Secretary, would be required to provide testimony, documents, or other evidence. CBO expects that the Secretary would likely exercise this authority sparingly and that the costs to comply with a subpoena would not be significant for those entities.

Mandates that apply to public entities only

Preemption of State and Local Laws. S. 1578 also would preempt state and local laws that would be inconsistent or conflict with the new federal requirements. (The bill would specifically preserve state and local authority to impose greater penalties or fees for acts or omissions that are violations of the act.) This preemption constitutes a mandate as defined in UMRA, but any costs to state and local governments would be minimal.

Previous CBO estimate: On August 29, 2007, CBO transmitted a cost estimate for H.R. 2830, the Coast Guard Authorization Act of 2007, as ordered reported by the House Committee on Transportation and Infrastructure on June 28, 2007. Title V of H.R. 2830 and S. 1578 authorize similar activities. The total amounts authorized to be appropriated by S. 1578 are higher than those authorized by H.R. 2830, as reflected in the CBO cost estimates. Also, H.R. 2830 would not establish criminal penalties; S. 1578 would.

Estimate prepared by: Federal Spending: Deborah Reis, Impact on State, Local, and Tribal Governments: Elizabeth Cove, Impact on the Private Sector: Jacob Kuipers.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

NUMBER OF PERSONS COVERED

S. 1578 as reported by the Committee would authorize appropriations to establish a uniform national ballast water exchange and treatment program and make a number of changes to current law. The bill would have a large regulatory impact for commercial vessels operating in U.S. waters.

ECONOMIC IMPACT

The reported bill would benefit the U.S. economy by reducing damages from aquatic nuisance species, now estimated to be in the range of millions to billions of dollars annually. Up to \$50 million per year for FY 2008 through FY 2012 would be authorized for appropriations to the Coast Guard to implement the bill's obligations. Out of the \$50 million, up to \$10 million would be available to States to implement cooperative agreements. The bill would also authorize \$5 million annually in support of private sector development of ballast water treatment technologies. Vessels to which the

bill applies would bear the costs of implementing the bill's requirements for treatment technologies; however, the purchase of such technologies would also provide a benefit to the U.S. economy.

PRIVACY

The reported bill would have little, if any, impact on the personal privacy of U.S. citizens.

PAPERWORK

The reported bill would increase paperwork requirements for individuals and businesses conducting commercial vessel operations in U.S. waters by requiring them to prepare ballast water plans and keep and maintain accurate logs of their ballast water exchange activities.

SECTION-BY-SECTION ANALYSIS

Section 1. Short Title.

Section 1 would provide that the Act may be cited as the "Ballast Water Management Act of 2007."

Section 2. Findings.

Section 2 would include Congressional findings relevant to the issue of aquatic nuisance species from ballast water and other ship vectors.

Section 3: Management of Vessel-Borne Aquatic Nuisance Species.

Section 3 would amend section 1101 of the NANPCA (16 U.S.C. 4711) to establish a stronger and uniform national approach to addressing aquatic nuisance species from ballast water and other ship vectors. The approach set forth in Section 3 would closely track with the requirements and structure of an international agreement on ballast water that was negotiated, with United States leadership, in the IMO. The bill would include additional provisions in applying these requirements to the United States.

Section 1101 would be amended as follows:

Subsection (a) of section 1101, as amended, would set forth a statement of purpose and the scope of the requirements of section 1101. The purpose of section 1101 would be to provide an effective, comprehensive, and uniform national approach for addressing the introduction and spread of aquatic nuisance species from ballast water and other ship vectors. Section 1101 also would apply to vessels that are designed, constructed, or adapted to carry ballast water, including U.S. vessels and foreign vessels that come to or depart from a U.S. port or place and are within waters subject to the jurisdiction of the United States. Several types of vessels would be exempted from the requirements of the section, including vessels that carry permanent ballast water in sealed tanks, vessels of the United States Armed Forces that follow a comparable program, and small vessels, for which alternative measures may be promulgated.

Subsection (b) of section 1101, as amended, would establish a general requirement that vessels to which the legislation applies may only uptake or discharge ballast water or sediment in accordance with the requirements and schedule established in the bill. Certain exceptions would apply, including when the safety of the

vessel is in question, in saving a life at sea, when damage to the vessel results in an accidental discharge, or when necessary to prevent discharge of pollution.

Subsection (c) of section 1101, as amended, would require a vessel to have an approved ballast water management plan on board that meets requirements prescribed by the Secretary. The plan would describe the actions to be taken to implement the ballast water management requirements of the bill. For foreign vessels, the Secretary would be authorized to approve a plan based on a certificate of compliance issued by the vessel's country of registration. The plan would be required to be maintained on the vessel.

Subsection (d) of section 1101, as amended, would require a vessel to keep a ballast water record book on board documenting its ballast water operations, in accordance with regulations promulgated by the Secretary.

Subsection (e) of section 1101, as amended, would require vessels to use ballast water exchange to reduce the risk of introduction of aquatic nuisance species until ballast water treatment standards outlined in subsection (f) of this section come into effect. As an alternative, vessels could meet this requirement by using ballast water treatment that meets the performance standards of subsection (f) or by using ballast treatment that does not meet the performance standards in subsection (f) but is at least as effective as ballast water exchange. For vessels using ballast water exchange, this subsection would require vessels arriving at a U.S. port from outside the U.S. EEZ to conduct exchange at least 200 nautical miles from the nearest point of land, in water at least 200 meters in depth. Vessels voyaging between ports within 200 nautical miles of the United States would be required to conduct exchange at least 50 nautical miles from the nearest land, in water at least 200 meters in depth. Ballast water exchange would not be allowed in marine sanctuaries or other designated areas. This subsection would provide a process by which Federal agencies and States could establish no-discharge zones for areas that warrant greater protection.

A number of exceptions would be included in this subsection. First, the ballast water exchange requirements would not apply to discharges of ballast water necessary to ensure the safety or stability of the vessel, its crew, or its passengers. This exemption is important particularly for certain vessel classes, such as many tug and barge operations. Second, the provision would address the problem of requiring ballast water exchange for vessels on short voyages by allowing vessel operators to seek a waiver if conducting exchange would cause the operator substantial business hardship, as determined by the Secretary. Third, an exemption would be provided for vessels operating exclusively between certain areas where the risk of introducing aquatic nuisance species is insignificant, including vessels operating within the Great Lakes and among the main Hawaiian islands. States would have to concur in the designation of any additional areas in State waters in which vessels would be exempted from ballast water exchange. This subsection also would provide that un-exchanged ballast water discharged pursuant to an exception should be discharged in an area designated by the Secretary or into a reception facility established under subsection (f).

Subsection (f) of section 1101, as amended, would specify the overall performance standards for ship-board ballast water treatment, provide exceptions for ballast treated at a reception facility, set forth the implementation schedule for treatment and the approval process for treatment systems, provide for a feasibility review process and a delay if there are no feasible technologies, provide for earlier implementation if higher standards are achievable, establish a schedule for periodic review of treatment technologies and standards, provide incentives to allow vessels with promising experimental treatment systems to use those systems for up to 10 years, define certain high risk vessels based on their operations and origins of their voyages, provide exceptions for vessels operating in certain areas with insignificant risk of spreading aquatic nuisance species, and describe laboratories and protocols for evaluating and certifying technologies for ballast water treatment.

Paragraph (1) would set forth the performance standards for ballast water treatment. Treatment is to achieve less than 1 living organism that is 50 or more micrometers in size per 10 cubic meters, and less than 1 living organism that is less than 50 and more than 10 micrometers in size per 10 milliliters. The standards also include concentrations for three indicator microbes: *Vibrio cholera*, *Escherichia coli*, and *enterococci*.

Paragraph (2) would provide that the performance standards are not applicable to discharges of ballast water into a reception facility designated by the Administrator of the EPA (Administrator).

Paragraph (3) would set forth the implementation date of January 1, 2012, for all vessels.

Paragraph (4) would require the Secretary, in consultation with the Administrator, to establish a process for approval of ballast water treatment technologies.

Paragraph (5) would set forth the feasibility review process that the Coast Guard would use to evaluate whether technologies exist that would meet the performance standards. The process would include specific criteria, including the effectiveness of a technology, whether a technology has an adverse impact on the environment, and cost effectiveness. If the Coast Guard determines that compliance with the performance standards is not feasible, vessels would be required to implement available technologies that, at a minimum, meet the standards of the IMO. If no feasible technologies exist, the Coast Guard would extend the date of compliance up to two years. This process would then be repeated. Paragraph (5) also would provide that if the Coast Guard determines treatment technology exists that exceeds the performance standards, or that effective technology could be implemented sooner than the phase-in dates, the Coast Guard would be required to revise the standards and timeframe for implementation accordingly.

Paragraph (6) would provide an incentive for vessels to participate in a pilot program approved by the Coast Guard to conduct ship-board testing of ballast water treatment technologies likely to achieve or exceed the performance standards, by allowing the vessels to use such technology for ten years. This provision is aimed at encouraging vessel operators to participate in such programs. To date operators have not participated at a high rate due to the costs and risks otherwise involved in testing technologies on board. The

subsection also would encourage a range of vessel types and voyages to participate.

Paragraph (7) would require, starting in December 2014, and every third year thereafter, the Administrator, in consultation with the Secretary, and other Federal and State agencies, to determine if the performance standards should be revised to reduce the amount of organisms or microbes allowed to be discharged.

Paragraph (8) would provide that if compliant treatment technologies installed aboard a vessel are maintained and used, the vessel may keep that technology for up to ten years if the performance standards of the bill are met, and for up to five years if the IMO standards are used, even if the Coast Guard determines during their review that an enhanced treatment standard is available.

Paragraph (9) would require the Secretary to publish a list of vessels identified by States that, due to factors such as the origin of their voyages, the volume of ballast water they carry, and the fact that they frequently discharge unexchanged or improperly exchanged ballast water pursuant to an exception, pose a relatively high risk of introducing aquatic nuisance species into the waters of the United States. This paragraph further would provide that the Secretary give priority to such vessels for participation in technology pilot programs described in paragraph (f)(6), and that Federal and State programs would be authorized to provide incentives to such vessels to more quickly adopt ballast water treatment technologies.

Paragraph (10) would exempt certain vessels from ballast water treatment standards if they operate exclusively in areas where the risk of aquatic nuisance species in ballast water is insignificant. States would have to concur before such an exemption was provided.

Paragraph (11) would require the Secretary, in consultation with the Administrator, to issue interim protocols within 90 days of enactment for verifying the performance of ballast water treatment technologies, criteria for certifying laboratories, and procedures for approving such systems for shipboard use to ensure that the development of technologies begins promptly. The paragraph would allow the use of both Federal and non-federal laboratories for evaluating ballast water treatment technologies and equipment.

Subsection (g) of section 1101, as amended, would require the Secretary to notify mariners of areas where vessels should not uptake ballast water due to known conditions.

Subsection (h) of section 1101, as amended, would require vessels to dispose of sediment from ballast tanks either more than 200 nautical miles from the nearest point of land, or into a reception facility, in accordance with the ballast water plan and regulations to be approved by the Secretary. The Administrator would be required to promulgate regulations for the reception facilities themselves. This subsection also would require new vessels to be designed and constructed in a manner that minimizes sediment in ballast tanks and facilitates its removal.

Subsection (i) of section 1101, as amended, would require the Secretary to inspect new and existing vessels and ballast water equipment annually to ensure compliance with the requirements of the bill. Foreign vessels would be inspected the first time the vessel enters a United States port. The section also would require the Sec-

retary to prepare and make public an annual report on ballast water management activities.

Subsection (j) of section 1101, as amended, would authorize the Secretary to detain a vessel that is in violation of the ballast water management requirements and to require corrective action before it gets underway.

Subsection (k) of section 1101, as amended, would authorize civil or criminal penalties to be charged to the responsible party if the person or persons are found to be in violation of a regulation prescribed under this section.

Subsection (l) of section 1101, as amended, would authorize the Secretary to enforce the requirements of the bill and regulations promulgated under the bill.

Subsection (m) of section 1101, as amended, would encourage the Secretary to consult with the governments of Canada and Mexico, as well as other relevant countries, in implementing the requirements of the bill.

Subsection (n) of section 1101, as amended, would encourage the Secretary to enter into negotiations with foreign governments to develop and implement an effective international program for preventing the unintentional introduction and spread of aquatic nuisance species through ballast waters.

Subsection (o) of section 1101, as amended, would require the Secretary to ensure that vessels registered outside of the U.S. do not receive more favorable treatment than United States vessels in implementing the bill.

Subsection (p) of section 1101, as amended, would authorize \$5 million annually from FY 2008 through FY 2012 to the Secretary to be provided for research and development on innovative technologies for the management, treatment, and disposal of ballast water and sediment, ballast water exchange, and other vessel vectors of aquatic nuisance species.

Subsection (q) of section 1101, as amended, would require the Secretary to consult with the Aquatic Nuisance Species Task Force, established by the NANPCA of 1990, in implementing this section.

Subsection (r) of section 1101, as amended, would require the Administrator to conduct an evaluation of human health and environmental risks from vessel discharges other than aquatic nuisance species that are not required to have discharge permits and propose strategies to address such risks.

Subsection (s) of section 1101, as amended, would require the Coast Guard to report to Congress on vessel-borne pathways of aquatic nuisance species other than through ballast water, such as from vessel hulls or anchors, and propose strategies to address such risks, including best practices for Federal vessels, and to report on the potential risk of foreign vessels that are transiting United States waters.

Subsection (t) of section 1101, as amended, would require the President to prepare a coordinated rapid response plan to detect and address the spread of nuisance aquatic organisms.

Subsection (u) of section 1101, as amended, would require the Secretary to develop regulations necessary to carry out the Act. The subsection contains a provision that would allow States to bring action against the Secretary and the Administrator to implement the nondiscretionary elements in the bill.

Subsection (v) of section 1101, as amended, would allow the Secretary to enter into cooperative management agreements with States, including arrangements for cooperative enforcement, inspection, research, and other provisions included in this Act. The Secretary would be authorized to provide grants to States to implement these agreements.

Subsection (w) of section 1101, as amended, is a savings clause stating that the Act would not preempt any State or local laws regulating aquatic nuisance species in ballast water or sediment as long as those laws do not impose substantively different exchange or treatment requirements, do not conflict with the requirements of the Act, and do not pose an undue burden on interstate commerce. It also would establish the bill as the sole Federal authority with respect to preventing the introduction of aquatic nuisance species from ballast water and other ship vectors.

Section 3 of the bill also, in subsection (b), would amend section 1003 of the NANPCA (16 U.S.C. 4702) to establish several additional definitions and would make conforming amendments, in subsection (c).

Section 4. Authorization of Appropriations.

Section 4 of the bill would authorize \$50,000,000 in annual appropriations for the Coast Guard for FY 2008 through FY 2012 to implement the legislation, of which a total of up to \$10,000,000 would be available to States to implement cooperative agreements in subsection (v) of section 1101 of the NANPCA, as amended.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

NONINDIGENOUS AQUATIC NUISANCE PREVENTION AND
CONTROL ACT OF 1990

SEC. 1002. FINDINGS AND PURPOSES.

[19 U.S.C. 4701]

(a) FINDINGS.—The Congress finds that—

(1) the discharge of untreated water in the ballast tanks of vessels and through other means results in unintentional introductions of nonindigenous species to fresh, brackish, and saltwater environments;

(2) when environmental conditions are favorable, nonindigenous species become established, may compete with or prey upon native species of plants, fish, and wildlife, may carry diseases or parasites that affect native species, and may disrupt the aquatic environment and economy of affected nearshore areas;

(3) the zebra mussel was unintentionally introduced into the Great Lakes and has infested—

(A) waters south of the Great Lakes, into a good portion of the Mississippi River drainage;

- (B) waters west of the Great Lakes, into the Arkansas River in Oklahoma; and
 - (C) waters east of the Great Lakes, into the Hudson River and Lake Champlain;
- (4) the potential economic disruption to communities affected by the zebra mussel due to its colonization of water pipes, boat hulls and other hard surfaces has been estimated at \$5,000,000,000 by the year 2000, and the potential disruption to the diversity and abundance of native fish and other species by the zebra mussel and ruffe, round goby, and other non-indigenous species could be severe;
- (5) the zebra mussel was discovered on Lake Champlain during 1993 and the opportunity exists to act quickly to establish zebra mussel controls before Lake Champlain is further infested and management costs escalate;
- (6) in 1992, the zebra mussel was discovered at the northernmost reaches of the Chesapeake Bay watershed;
- (7) the zebra mussel poses an imminent risk of invasion in the main waters of the Chesapeake Bay;
- (8) since the Chesapeake Bay is the largest recipient of foreign ballast water on the East Coast, there is a risk of further invasions of other nonindigenous species;
- (9) the zebra mussel is only one example of thousands of nonindigenous species that have become established in waters of the United States and may be causing economic and ecological degradation with respect to the natural resources of waters of the United States;
- (10) since their introduction in the early 1980's in ballast water discharges, ruffe—
- (A) have caused severe declines in populations of other species of fish in Duluth Harbor (in Minnesota and Wisconsin);
 - (B) have spread to Lake Huron; and
 - (C) are likely to spread quickly to most other waters in North America if action is not taken promptly to control their spread;
- (11) examples of nonindigenous species that, as of the date of enactment of the National Invasive Species Act of 1996, infest coastal waters of the United States and that have the potential for causing adverse economic and ecological effects include—
- (A) the mitten crab (*Eriocheir sinensis*) that has become established on the Pacific Coast;
 - (B) the green crab (*Carcinus maenas*) that has become established in the coastal waters of the Atlantic Ocean;
 - (C) the brown mussel (*Perna perna*) that has become established along the Gulf of Mexico; and
 - (D) certain shellfish pathogens;
- (12) many aquatic nuisance vegetation species, such as Eurasian watermilfoil, hydrilla, water hyacinth, and water chestnut, have been introduced to waters of the United States from other parts of the world causing or having a potential to cause adverse environmental, ecological, and economic effects;
- (13) if preventive management measures are not taken nationwide to prevent and control unintentionally introduced

nonindigenous aquatic species in a timely manner, further introductions and infestations of species that are as destructive as, or more destructive than, the zebra mussel or the ruffe infestations may occur;

(14) aquatic nuisance species may be introduced by other vessel conduits, including the hulls of ships;

[(14)] (15) once introduced into waters of the United States, aquatic nuisance species are unintentionally transported and introduced into [inland lakes and rivers by recreational boaters, commercial barge traffic, and a variety of other pathways; and] *other areas of the United States, including coastal areas, inland lakes, and rivers by recreational boaters, commercial traffic, and a variety of other pathways;*

[(15)] (16) resolving the problems associated with aquatic nuisance species will require the participation and cooperation of the Federal Government and State governments, *nongovernmental entities, institutions of higher education, and the private sector,* and investment in the development of prevention [technologies.] *technologies;*

(17) in 2004, the International Maritime Organization agreed to a Convention, which the United States played an active role in negotiating, to prevent, minimize, and ultimately eliminate the transfer of aquatic nuisance species through the control and management of ballast water and sediments;

(18) the International Maritime Organization agreement specifically recognizes that countries can take more stringent measures than those of the Convention with respect to the control and management of ships' ballast water and sediment; and

(19) due to the interstate nature of maritime transportation and the ways by which aquatic nuisance species may be transferred by vessels, a comprehensive and uniform national approach for addressing vessel-borne aquatic nuisance species is needed to address this issue effectively.

(b) PURPOSES.—The purposes of this Act are—

(1) to prevent unintentional introduction and dispersal of nonindigenous species into waters of the United States through ballast water management and other requirements;

(2) to coordinate federally conducted, funded or authorized research, prevention[,] control, information dissemination and other activities regarding the zebra mussel and other aquatic nuisance species;

(3) to develop and carry out environmentally sound control methods to prevent, monitor and control unintentional introductions of nonindigenous species from pathways other than ballast water exchange;

(4) to understand and minimize economic and ecological impacts of nonindigenous aquatic nuisance species that become established, including the zebra mussel; and

(5) to establish a program of research and technology development and assistance to States in the management and removal of zebra mussels.

SEC. 1003. DEFINITIONS.

[19 U.S.C. 4702]

[As used in this Act, the term—] *In this Act:*

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency;

[(1)] (2) AQUATIC NUISANCE SPECIES.—The term “aquatic nuisance species” means a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on such [waters;] waters.

[(2)] (3) ASSISTANT SECRETARY.—The term “Assistant Secretary” means the Assistant Secretary of the Army (Civil [Works];] Works).

[(3)] “ballast water” means any water and associated sediments used to manipulate the trim and stability of a vessel;]

(4) BALLAST WATER.—The term “ballast water”—

(A) means water taken on board a vessel to control trim, list, draught, stability, or stresses of the vessel, including matter suspended in such water; and

(B) any water placed into a ballast tank during cleaning, maintenance, or other operations; but

(C) does not include water taken on board a vessel and used for a purpose described in subparagraph (A) that, at the time of discharge, does not contain aquatic nuisance species.

(5) BALLAST WATER CAPACITY.—The term “ballast water capacity” means the total volumetric capacity of any tanks, spaces, or compartments on a vessel that is used for carrying, loading, or discharging ballast water, including any multi-use tank, space, or compartment designed to allow carriage of ballast water.

(6) BALLAST WATER MANAGEMENT.—The term “ballast water management” means mechanical, physical, chemical, and biological processes used, either singularly or in combination, to remove, render harmless, or avoid the uptake or discharge of aquatic nuisance species and pathogens within ballast water and sediment.

(7) CONSTRUCTED.—The term “constructed” means a state of construction of a vessel at which—

(A) the keel is laid;

(B) construction identifiable with the specific vessel begins;

(C) assembly of the vessel has begun comprising at least 50 tons or 1 percent of the estimated mass of all structural material of the vessel, whichever is less; or

(D) the vessel undergoes a major conversion.

[(4)] (8) DIRECTOR.—The term “Director” means the Director of the United States Fish and Wildlife [Service;] Service.

[(5)] (9) EXCLUSIVE ECONOMIC ZONE.—The term “exclusive economic zone” means the Exclusive Economic Zone of the United States established by Proclamation Number 5030, dated March 10, 1983, and the equivalent zone of [Canada;] Canada.

[(6)] (10) ENVIRONMENTALLY SOUND.—The term “environmentally sound” methods, efforts, actions or programs means methods, efforts, actions or programs to prevent introductions or control infestations of aquatic nuisance species that mini-

mize adverse impacts to the structure and function of an ecosystem and adverse effects on non-target organisms and ecosystems and emphasize integrated pest management techniques and nonchemical **[measures;]** *measures*.

[(7)] (11) GREAT LAKES.—*The term “Great Lakes” means Lake Ontario, Lake Erie, Lake Huron (including Lake St. Clair), Lake Michigan, Lake Superior, and the connecting channels (Saint Mary’s River, Saint Clair River, Detroit River, Niagara River, and Saint Lawrence River to the [Canadian] Canadian Border), and includes all other bodies of water within the drainage basin of such lakes and connecting channels.*

[(8)] (12) GREAT LAKES REGION.—*The term “Great Lakes region” means the 8 States that border on the Great [Lakes;] Lakes.*

[(9)] (13) INDIAN TRIBE.—*The term “Indian tribe” means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional corporation (as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.)) that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as [Indians;] Indians.*

[(10)] (14) INTERSTATE ORGANIZATION.—*The term “interstate organization” means an entity—*

(A) established by—

(i) an interstate compact that is approved by Congress;

(ii) a Federal statute; or

(iii) a treaty or other international agreement with respect to which the United States is a party; and

(B) (i) that represents 2 or more—

(I) States or political subdivisions thereof; or

(II) Indian tribes; or

(ii) that represents—

(I) 1 or more States or political subdivisions thereof; and

(II) 1 or more Indian tribes; or

(iii) that represents the Federal Government and 1 or more foreign governments; and

(C) has jurisdiction over, serves as forum for coordinating, or otherwise has a role or responsibility for the management of, any land or other natural **[resource;]** *resource*.

(15) MAJOR CONVERSION.—*The term “major conversion” means a conversion of a vessel, that—*

(A) *changes its ballast water carrying capacity by at least 15 percent;*

(B) *changes the vessel class;*

(C) *is projected to prolong the vessel’s life by at least 10 years (as determined by the Secretary); or*

(D) *results in modifications to the vessel’s ballast water system, except—*

(i) *component replacement-in-kind; or*

(ii) *conversion of a vessel to meet the requirements of section 1101(e).*

[(11)] (16) *NONINDIGENOUS SPECIES*.—The term “nonindigenous species” means any species or other viable biological material that enters an ecosystem beyond its historic range, including any such organism transferred from one country into [another;] *another*.

[(12)] (17) *SECRETARY*.—The term “Secretary” means the Secretary of the department in which the Coast Guard is [operating;] *operating*.

(18) *SALTWATER FLUSHING*.—The term “saltwater flushing” means the process of—

(A) *adding midocean water to a ballast water tank that contains residual quantities of ballast waters;*

(B) *mixing the midocean water with the residual ballast water and sediment in the tank through the motion of a vessel; and*

(C) *discharging the mixed water so that the salinity of the resulting residual ballast water in the tank exceeds 30 parts per [thousand;] thousand.*

(19) *SEDIMENT*.—The term “sediment” means matter that has settled out of ballast water within a [vessel;] *vessel*.

[(13)] (20) *TASK FORCE*.—The term “Task Force” means the Aquatic Nuisance Species Task Force established under section 1201 of this [Act;] *Act*.

[(14)] (21) *TERRITORIAL SEA*.—The term “territorial sea” means the belt of the sea measured from the baseline of the United States determined in accordance with international law, as set forth in Presidential Proclamation Number 5928, dated December 27, [1988;] *1988*.

[(15)] (22) *UNDER SECRETARY*.—The term “Under Secretary” means the Under Secretary of Commerce for Oceans and Atmosphere;

[(16)] (23) *WATERS OF THE UNITED STATES*.—The term “waters of the United States” means the navigable waters and the territorial sea of the United [States; and] *States*.

[(17)] (24) *UNINTENTIONAL INTRODUCTION*.—The term “unintentional introduction” means an introduction of nonindigenous species that occurs as the result of activities other than the purposeful or intentional introduction of the species involved, such as the transport of nonindigenous species in ballast or in water used to transport fish, mollusks or crustaceans for aquaculture or other purposes.

(25) *UNITED STATES PORT*.—The term “United States port” means a port, river, harbor, or offshore terminal under the jurisdiction of the United States, including ports located in Puerto Rico, Guam, the Northern Marianas, and the United States Virgin Islands.

(26) *VESSEL OF THE ARMED FORCES*.—The term “vessel of the Armed Forces” means—

(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 Homeland Security that is designated by the Secretary of the department in which the Coast Guard is operating as a vessel equivalent to a vessel described in subparagraph (A).*

(27) *WATERS SUBJECT TO THE JURISDICTION OF THE UNITED STATES.*—The term “waters subject to the jurisdiction of the United States” means navigable waters and the territorial sea of the United States, the exclusive economic zone, and the Great Lakes.

* * * * *

[SEC. 1101. AQUATIC NUISANCE SPECIES IN WATERS OF THE UNITED STATES.

[19 U.S.C. 4711]

[(a) GREAT LAKES GUIDELINES.—

[(1) IN GENERAL.—Not later than 6 months after the date of enactment of this Act, the Secretary shall issue voluntary guidelines to prevent the introduction and spread of aquatic nuisance species into the Great Lakes through the exchange of ballast water of vessels prior to entering those waters.

[(2) CONTENT OF GUIDELINES.—The guidelines issued under this subsection shall—

[(A) ensure to the maximum extent practicable that ballast water containing aquatic nuisance species is not discharged into the Great Lakes;

[(B) protect the safety of—

[(i) each vessel; and

[(ii) the crew and passengers of each vessel;

[(C) take into consideration different vessel operating conditions; and

[(D) be based on the best scientific information available.

[(b) REGULATIONS.—

[(1) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary, in consultation with the Task Force, shall issue regulations to prevent the introduction and spread of aquatic nuisance species into the Great Lakes through the ballast water of vessels.

[(2) CONTENT OF REGULATIONS.—The regulations issued under this subsection shall—

[(A) apply to all vessels equipped with ballast water tanks that enter a United States port on the Great Lakes after operating on the waters beyond the exclusive economic zone;

[(B) require a vessel to—

[(i) carry out exchange of ballast water on the waters beyond the exclusive economic zone prior to entry into any port within the Great Lakes;

[(ii) carry out an exchange of ballast water in other waters where the exchange does not pose a threat of infestation or spread of aquatic nuisance species in the Great Lakes and other waters of the United States, as recommended by the Task Force under section 1102(a)(1); or

[(iii) use environmentally sound alternative ballast water management methods if the Secretary determines that such alternative methods are as effective as ballast water exchange in preventing and controlling infestations of aquatic nuisance species;

[(C) not affect or supersede any requirements or prohibitions pertaining to the discharge of ballast water into waters of the United States under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

[(D) provide for sampling procedures to monitor compliance with the requirements of the regulations;

[(E) prohibit the operation of a vessel in the Great Lakes if the master of the vessel has not certified to the Secretary or the Secretary's designee by not later than the departure of that vessel from the first lock in the St. Lawrence Seaway that the vessel has complied with the requirements of the regulations;

[(F) protect the safety of—

[(i) each vessel; and

[(ii) the crew and passengers of each vessel;

[(G) take into consideration different operating conditions; and

[(H) be based on the best scientific information available.

[(3) ADDITIONAL REGULATIONS.—In addition to promulgating regulations under paragraph (1), the Secretary, in consultation with the Task Force, shall, not later than November 4, 1994, issue regulations to prevent the introduction and spread of aquatic nuisance species into the Great Lakes through ballast water carried on vessels that enter a United States port on the Hudson River north of the George Washington Bridge.

[(4) EDUCATION AND TECHNICAL ASSISTANCE PROGRAMS.—The Secretary may carry out education and technical assistance programs and other measures to promote compliance with the regulations issued under this subsection.

[(c) VOLUNTARY NATIONAL GUIDELINES.—

[(1) IN GENERAL.—Not later than 1 year after the date of enactment of the National Invasive Species Act of 1996, and after providing notice and an opportunity for public comment, the Secretary shall issue voluntary guidelines to prevent the introduction and spread of nonindigenous species in waters of the United States by ballast water operations and other operations of vessels equipped with ballast water tanks.

[(2) CONTENT OF GUIDELINES.—The voluntary guidelines issued under this subsection shall—

[(A) ensure to the maximum extent practicable that aquatic nuisance species are not discharged into waters of the United States from vessels;

[(B) apply to all vessels equipped with ballast water tanks that operate in waters of the United States;

[(C) protect the safety of—

[(i) each vessel; and

[(ii) the crew and passengers of each vessel;

[(D) direct a vessel that is carrying ballast water into waters of the United States after operating beyond the exclusive economic zone to—

[(i) carry out the exchange of ballast water of the vessel in waters beyond the exclusive economic zone;

[(ii) exchange the ballast water of the vessel in other waters where the exchange does not pose a

threat of infestation or spread of nonindigenous species in waters of the United States, as recommended by the Task Force under section 1102(a)(1); or

[(iii) use environmentally sound alternative ballast water management methods, including modification of the vessel ballast water tanks and intake systems, if the Secretary determines that such alternative methods are at least as effective as ballast water exchange in preventing and controlling infestations of aquatic nuisance species;

[(E) direct vessels to carry out management practices that the Secretary determines to be necessary to reduce the probability of unintentional nonindigenous species transfer resulting from—

[(i) ship operations other than ballast water discharge; and

[(ii) ballasting practices of vessels that enter waters of the United States with no ballast water on board;

[(F) provide for the keeping of records that shall be submitted to the Secretary, as prescribed by the guidelines, and that shall be maintained on board each vessel and made available for inspection, upon request of the Secretary and in a manner consistent with subsection (i), in order to enable the Secretary to determine compliance with the guidelines, including—

[(i) with respect to each ballast water exchange referred to in clause (ii), reporting on the precise location and thoroughness of the exchange; and

[(ii) any other information that the Secretary considers necessary to assess the rate of effective compliance with the guidelines;

[(G) provide for sampling procedures to monitor compliance with the guidelines;

[(H) take into consideration—

[(i) vessel types;

[(ii) variations in the characteristics of point of origin and receiving water bodies;

[(iii) variations in the ecological conditions of waters and coastal areas of the United States; and

[(iv) different operating conditions;

[(I) be based on the best scientific information available;

[(J) not affect or supersede any requirements or prohibitions pertaining to the discharge of ballast water into waters of the United States under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.); and

[(K) provide an exemption from ballast water exchange requirements to passenger vessels with operating ballast water systems that are equipped with treatment systems designed to kill aquatic organisms in ballast water, unless the Secretary determines that such treatment systems are less effective than ballast water exchange at reducing the risk of transfers of invasive species in the ballast water of passenger vessels; and

[(L) not apply to crude oil tankers engaged in the coastwise trade.

[(3) EDUCATION AND TECHNICAL ASSISTANCE PROGRAMS.—Not later than 1 year after the date of enactment of the National Invasive Species Act of 1996, the Secretary shall carry out education and technical assistance programs and other measures to encourage compliance with the guidelines issued under this subsection.

[(d) REPORT TO CONGRESS.—Not sooner than 24 months after the date of issuance of guidelines pursuant to subsection (c) and not later than 30 months after such date, and after consultation with interested and affected persons, the Secretary shall prepare and submit to Congress a report containing the information required pursuant to paragraphs (1) and (2) of subsection (e).

[(e) PERIODIC REVIEW AND REVISION.—

[(1) IN GENERAL.—Not later than 3 years after the date of issuance of guidelines pursuant to subsection (c), and not less frequently than every 3 years thereafter, the Secretary shall, in accordance with criteria developed by the Task Force under paragraph (3)—

[(A) assess the compliance by vessels with the voluntary guidelines issued under subsection (c) and the regulations promulgated under this Act;

[(B) establish the rate of compliance that is based on the assessment under subparagraph (A);

[(C) assess the effectiveness of the voluntary guidelines and regulations referred to in subparagraph (A) in reducing the introduction and spread of aquatic nuisance species by vessels; and

[(D) as necessary, on the basis of the best scientific information available—

[(i) revise the guidelines and regulations referred to in subparagraph (A);

[(ii) promulgate additional regulations pursuant to subsection (f)(1); or

[(iii) carry out each of clauses (i) and (ii).

[(2) SPECIAL REVIEW AND REVISION.—Not later than 90 days after the Task Force makes a request to the Secretary for a special review and revision for coastal and inland waterways designated by the Task Force, the Secretary shall—

[(A) conduct a special review of guidelines and regulations applicable to those waterways in accordance with the review procedures under paragraph (1); and

[(B) as necessary, in the same manner as provided under paragraph (1)(D)—

[(i) revise those guidelines;

[(ii) promulgate additional regulations pursuant to subsection (f)(1); or

[(iii) carry out each of clauses (i) and (ii).

[(3) CRITERIA FOR EFFECTIVENESS.—Not later than 18 months after the date of enactment of the National Invasive Species Act of 1996, the Task Force shall submit to the Secretary criteria for determining the adequacy and effectiveness of the voluntary guidelines issued under subsection (c).

[(f) AUTHORITY OF SECRETARY.—

[(1) GENERAL REGULATIONS.—If, on the basis of a periodic review conducted under subsection (e)(1) or a special review conducted under subsection (e)(2), the Secretary determines that—

[(A) the rate of effective compliance (as determined by the Secretary) with the guidelines issued pursuant to subsection (c) is inadequate; or

[(B) the reporting by vessels pursuant to those guidelines is not adequate for the Secretary to assess the compliance with those guidelines and provide a rate of compliance of vessels, including the assessment of the rate of compliance of vessels under subsection (e)(2),
the Secretary shall promptly promulgate regulations that meet the requirements of paragraph (2).

[(2) REQUIREMENTS FOR REGULATIONS.—The regulations promulgated by the Secretary under paragraph (1)—

[(A) shall—

[(i) not be promulgated sooner than 180 days following the issuance of the report to Congress submitted pursuant to subsection (d);

[(ii) make mandatory the requirements included in the voluntary guidelines issued under subsection (c); and

[(iii) provide for the enforcement of the regulations; and

[(B) may be regional in scope.

[(3) INTERNATIONAL REGULATIONS.—The Secretary shall revise regulations promulgated under this subsection to the extent required to make such regulations consistent with the treatment of a particular matter in any international agreement, agreed to by the United States, governing management of the transfer of nonindigenous aquatic species by vessel.

[(g) SANCTIONS.—

[(1) CIVIL PENALTIES.—Any person who violates a regulation promulgated under subsection (b) or (f) shall be liable for a civil penalty in an amount not to exceed \$25,000. Each day of a continuing violation constitutes a separate violation. A vessel operated in violation of the regulations is liable in rem for any civil penalty assessed under this subsection for that violation.

[(2) CRIMINAL PENALTIES.—Any person who knowingly violates the regulations promulgated under subsection (b) or (f) is guilty of a class C felony.

[(3) REVOCATION OF CLEARANCE.—Upon request of the Secretary, the Secretary of the Treasury shall withhold or revoke the clearance of a vessel required by section 4197 of the Revised Statutes (46 U.S.C. App. 91), if the owner or operator of that vessel is in violation of the regulations issued under subsection (b) or (f).

[(4) EXCEPTION TO SANCTIONS.—This subsection does not apply to a failure to exchange ballast water if—

[(A) the master of a vessel, acting in good faith, decides that the exchange of ballast water will threaten the safety or stability of the vessel, its crew, or its passengers; and

[(B) the recordkeeping and reporting requirements of the Act are complied with.

[(h) COORDINATION WITH OTHER AGENCIES.—In carrying out the programs under this section, the Secretary is encouraged to use, to the maximum extent practicable, the expertise, facilities, members, or personnel of established agencies and organizations that have routine contact with vessels, including the Animal and Plant Health Inspection Service of the Department of Agriculture, the National Cargo Bureau, port administrations, and ship pilots' associations.

[(i) CONSULTATION WITH CANADA, MEXICO, AND OTHER FOREIGN GOVERNMENTS.—In developing the guidelines issued and regulations promulgated under this section, the Secretary is encouraged to consult with the Government of Canada, the Government of Mexico, and any other government of a foreign country that the Secretary, in consultation with the Task Force, determines to be necessary to develop and implement an effective international program for preventing the unintentional introduction and spread of nonindigenous species.

[(j) INTERNATIONAL COOPERATION.—The Secretary, in cooperation with the International Maritime Organization of the United Nations and the Commission on Environmental Cooperation established pursuant to the North American Free Trade Agreement, is encouraged to enter into negotiations with the governments of foreign countries to develop and implement an effective international program for preventing the unintentional introduction and spread of nonindigenous species.

[(k) SAFETY EXEMPTION.—

[(1) MASTER DISCRETION.—The master of a vessel is not required to conduct a ballast water exchange if the master decides that the exchange would threaten the safety or stability of the vessel, its crew, or its passengers because of adverse weather, vessel architectural design, equipment failure, or any other extraordinary conditions.

[(2) OTHER REQUIREMENTS.—

[(A) IN GENERAL.—Except as provided in subparagraph (B), a vessel that does not exchange ballast water on the high seas under paragraph (1) shall not be restricted from discharging ballast water in any harbor.

[(B) GREAT LAKES.—Subparagraph (A) shall not apply in a case in which a vessel is subject to the regulations issued by the Secretary under subsection (b).

[(3) CRUDE OIL TANKER BALLAST FACILITY STUDY.—

[(A) Within 60 days of the date of enactment of this Act, the Secretary of the department in which the Coast Guard is operating, in consultation with the Under Secretary of Commerce for Oceans and Atmosphere, affected shoreside ballast water facility operators, affected crude oil tanker operators, and interested parties, shall initiate a study of the effectiveness of existing shoreside ballast water facilities used by crude oil tankers in the coastwise trade off Alaska in preventing the introduction of nonindigenous aquatic species into the waters off Alaska, as well as the cost and feasibility of modifying such facilities to improve such effectiveness.

[(B) The study required under subparagraph (A) shall be submitted to the Congress by no later than October 1, 1997.]

[(1) NON-DISCRIMINATION.—The Secretary shall ensure that vessels registered outside of the United States do not receive more favorable treatment than vessels registered in the United States when the Secretary performs studies, reviews compliance, determines effectiveness, establishes requirements, or performs any other responsibilities under this Act.]

SEC. 1101. MANAGEMENT OF VESSEL-BORNE AQUATIC NUISANCE SPECIES.

(a) *STATEMENT OF PURPOSE; VESSELS TO WHICH THIS SECTION APPLIES.*—

(1) *PURPOSE.*—*The purpose of this section is to provide an effective, comprehensive, and uniform national approach for addressing the introduction and spread of aquatic nuisance species from ballast water and other ship-borne vectors, and, in furtherance of that purpose—*

(A) *to require, as part of that approach, mandatory treatment technology, with the ultimate goal of achieving zero discharge of aquatic nuisance species;*

(B) *to create incentives for the development of ballast water treatment technologies;*

(C) *to implement the International Convention for the Control and Management of Ships' Ballast Water and Sediments, adopted by the International Maritime Organization in 2004; and*

(D) *to establish a management approach for other ship-borne vectors of aquatic nuisance species.*

(2) *IN GENERAL.*—*Except as provided in paragraphs (3), (4), (5), and (6) this section applies to a vessel that is designed, constructed, or adapted to carry ballast water; and*

(A) *is a vessel of United States registry or nationality, or operated under the authority of the United States, wherever located; or*

(B) *is a foreign vessel that—*

(i) *is en route to a United States port or place; or*

(ii) *has departed from a United States port or place and is within waters subject to the jurisdiction of the United States.*

(3) *PERMANENT BALLAST WATER VESSELS.*—*Except as provided in paragraph (6), this section does not apply to a vessel that carries all of its permanent ballast water in sealed tanks and is not subject to discharge.*

(4) *ARMED FORCES VESSELS.*—

(A) *EXEMPTION.*—*Except as provided in subparagraph (B) and paragraph (6), this section does not apply to a vessel of the Armed Forces.*

(B) *BALLAST WATER MANAGEMENT PROGRAM.*—*The Secretary and the Secretary of Defense, after consultation with each other and with the Under Secretary of Commerce for Oceans and Atmosphere, the Administrator of the Environmental Protection Agency, and other appropriate Federal agencies as determined by the Secretary, shall implement a ballast water management program, including the promul-*

gation of standards for ballast water exchange and treatment and for sediment management, for vessels of the Armed Forces under their respective jurisdictions designed, constructed, or adapted to carry ballast water that is—

(i) consistent with the requirements of this section, including the deadlines; and

(ii) at least as stringent as the requirements promulgated for such vessels under section 312 of the Clean Water Act (33 U.S.C. 1322).

(5) *SPECIAL RULE FOR SMALL VESSELS.*—In applying this section to vessels less than 50 meters in length that have a maximum ballast water capacity of 8 cubic meters, the Secretary may promulgate alternative measures for managing ballast water in a manner that is consistent with the purposes of this Act.

(6) *OTHER SOURCES OF VESSEL-BORNE AQUATIC NUISANCE SPECIES.*—Measures undertaken by the Secretary under subsection (s) shall apply to all vessels (as defined in section 3 of title 1, United States Code).

(b) *UPTAKE AND DISCHARGE OF BALLAST WATER OR SEDIMENT.*—

(1) *PROHIBITION.*—The operator of a vessel to which this section applies may not conduct the uptake or discharge of ballast water or sediment except as provided in this section.

(2) *EXCEPTIONS.*—Paragraph (1) does not apply to the uptake or discharge of ballast water or sediment in the following circumstances:

(A) The uptake or discharge is solely for the purpose of—
(i) ensuring the safety of the vessel in an emergency situation; or

(ii) saving a life at sea.

(B) The uptake or discharge is accidental and the result of damage to the vessel or its equipment and—

(i) all reasonable precautions to prevent or minimize ballast water and sediment discharge have been taken before and after the damage occurs, the discovery of the damage, and the discharge; and

(ii) the owner or officer in charge of the vessel did not willfully or recklessly cause the damage.

(C) The uptake or discharge is solely for the purpose of avoiding or minimizing the discharge from the vessel of pollution that would otherwise violate applicable Federal or State law.

(D) The uptake or discharge of ballast water and sediment occurs at the same location where the whole of that ballast water and that sediment originated and there is no mixing with ballast water and sediment from another area that has not been managed in accordance with the requirements of this section.

(c) *VESSEL BALLAST WATER MANAGEMENT PLAN.*—

(1) *IN GENERAL.*—The operator of a vessel to which this section applies shall conduct all ballast water management operations of that vessel in accordance with a ballast water management plan designed to minimize the discharge of aquatic nuisance species that—

(A) meets the requirements prescribed by the Secretary by regulation; and

(B) is approved by the Secretary.

(2) APPROVAL CRITERIA.—

(A) IN GENERAL.—The Secretary may not approve a ballast water management plan unless the Secretary determines that the plan—

(i) describes in detail the actions to be taken to implement the ballast water management requirements established under this section;

(ii) describes in detail the procedures to be used for disposal of sediment at sea and on shore in accordance with the requirements of this section;

(iii) describes in detail safety procedures for the vessel and crew associated with ballast water management;

(iv) designates the officer on board the vessel in charge of ensuring that the plan is properly implemented;

(v) contains the reporting requirements for vessels established under this section and a copy of each form necessary to meet those requirements;

(vi) incorporates regulatory requirements, guidance, and best practices developed under subsection (s) for other vessel pathways by which aquatic nuisance species are transported; and

(vii) meets all other requirements prescribed by the Secretary.

(B) FOREIGN VESSELS.—The Secretary may approve a ballast water management plan for a foreign vessel (as defined in section 2101(12) of title 46, United States Code) on the basis of a certificate of compliance with the criteria described in subparagraph (A) issued by the vessel's country of registration in accordance with regulations promulgated by the Secretary.

(3) COPY OF PLAN ON BOARD VESSEL.—The owner or operator of a vessel to which this section applies shall—

(A) maintain a copy of the vessel's ballast water management plan on board at all times; and

(B) keep the plan readily available for examination by the Secretary at all reasonable times.

(d) VESSEL BALLAST WATER RECORD BOOK.—

(1) IN GENERAL.—The owner or operator of a vessel to which this section applies shall maintain a ballast water record book in English on board the vessel in which—

(A) each operation involving ballast water or sediment discharge is fully recorded without delay, in accordance with regulations promulgated by the Secretary;

(B) each such operation is described in detail, including the location and circumstances of, and the reason for, the operation; and

(C) the exact nature and circumstances of any situation under which any operation was conducted under an exception set forth in subsection (b)(2) or (e)(3) is described.

(2) AVAILABILITY.—The ballast water record book—

(A) shall be kept readily available for examination by the Secretary at all reasonable times; and

(B) notwithstanding paragraph (1), may be kept on the towing vessel in the case of an unmanned vessel under tow.

(3) *RETENTION PERIOD.*—The ballast water record book shall be retained—

(A) on board the vessel for a period of 3 years after the date on which the last entry in the book is made; and

(B) under the control of the vessel's owner for an additional period of 3 years.

(4) *REGULATIONS.*—In the regulations prescribed under this section, the Secretary shall require, at a minimum, that—

(A) each entry in the ballast water record book be signed and dated by the officer in charge of the ballast water operation recorded;

(B) each completed page in the ballast water record book be signed and dated by the master of the vessel; and

(C) the owner or operator of the vessel transmit such information to the Secretary regarding the ballast operations of the vessel as the Secretary may require.

(5) *ALTERNATIVE MEANS OF RECORDKEEPING.*—The Secretary shall provide by regulation for alternative methods of recordkeeping, including electronic recordkeeping, to comply with the requirements of this subsection. Any electronic recordkeeping method authorized by the Secretary shall support the inspection and enforcement provisions of this Act and shall comply with applicable standards of the National Institute of Standards and Technology and the Office of Management and Budget governing reliability, integrity, identity authentication, and non-repudiation of stored electronic data.

(e) *BALLAST WATER EXCHANGE REQUIREMENTS.*—

(1) *IN GENERAL.*—

(A) *REQUIREMENT.*—Until a vessel is required to conduct ballast water treatment in accordance with subsection (f) of this section, the operator of a vessel to which this section applies may not discharge ballast water in waters subject to the jurisdiction of the United States except after—

(i) conducting ballast water exchange as required by this subsection, in accordance with regulations prescribed by the Secretary, in a manner that results in an efficiency of at least 95 percent volumetric exchange of the ballast water for each ballast water tank;

(ii) using ballast water treatment technology that meets the performance standards of subsection (f); or

(iii) using alternative ballast water treatment technology, if the Secretary, in consultation with the Administrator, determines that such treatment technology is at least as effective as the ballast water exchange required by clause (i) in preventing and controlling the introduction of aquatic nuisance species, and will not have an adverse impact on the environment.

(B) *TECHNOLOGY EFFICACY.*—For purposes of this paragraph, a ballast water treatment technology shall be considered to be at least as effective as the ballast water exchange required by clause (i) in preventing and controlling

the introduction of aquatic nuisance species if preliminary experiments prior to installation of the technology aboard the vessel demonstrate that the technology removed at least 98 percent of organisms larger than 50 microns.

(2) **GUIDANCE; 5-YEAR USAGE.**—

(A) **GUIDANCE.**—*Within 1 year after the date of enactment of the Ballast Water Management Act of 2007, after public notice and opportunity for comment, the Secretary shall develop guidance on technology that may be used under paragraph (1)(A)(iii).*

(B) **5-YEAR USAGE.**—*The Secretary shall allow a vessel using environmentally-sound alternative ballast water treatment technology under paragraph (1)(A)(iii) to continue to use that technology for 5 years after the date on which the environmentally-sound alternative ballast water treatment technology was first placed in service on the vessel, or the date on which treatment requirements under subsection (f) become applicable, whichever is later.*

(3) **EXCHANGE AREAS.**—

(A) **VESSELS OUTSIDE THE UNITED STATES EEZ.**—*The operator of a vessel en route to a United States port or place from a port or place outside the United States exclusive economic zone shall conduct ballast water exchange—*

(i) before arriving at a United States port or place;

(ii) at least 200 nautical miles from the nearest point of land; and

(iii) in water at least 200 meters in depth.

(B) **COASTAL VOYAGES.**—*In lieu of using an exchange zone described in subparagraph (A)(ii) or (iii), the operator of a vessel originating from a port or place within waters subject to the jurisdiction of the United States, or from a port within 200 nautical miles of the United States in Canada, Mexico, or other ports designated by the Secretary for purposes of this section, and which does not voyage into waters described in subparagraph (A)(ii) or (iii), shall conduct ballast water exchange—*

(i) at least 50 nautical miles from the nearest point of land; and

(ii) in water at least 200 meters in depth.

(4) **SAFETY OR STABILITY EXCEPTION.**—

(A) **SECRETARIAL DETERMINATION.**—*Paragraph (3) does not apply to the discharge of ballast water if the Secretary determines that compliance with that paragraph would threaten the safety or stability of the vessel, its crew, or its passengers because of the design or operating characteristics of the vessel.*

(B) **MASTER OF THE VESSEL DETERMINATION.**—*Paragraph (3) does not apply to the discharge of ballast water if the master of a vessel determines that compliance with that paragraph would threaten the safety or stability of the vessel, its crew, or its passengers because of adverse weather, equipment failure, or any other relevant condition.*

(C) **NOTIFICATION REQUIRED.**—*Whenever the master of a vessel is unable to comply with the requirements of para-*

graph (3) because of a determination made under subparagraph (B), the master of the vessel shall—

- (i) notify the Secretary as soon as practicable thereafter but no later than 24 hours after making that determination and shall ensure that the determination, the reasons for the determination, and the notice are recorded in the vessel's ballast water record book; and
- (ii) undertake ballast water exchange—

(I) in an alternative area that may be designated by the Secretary, after consultation with the Undersecretary, and other appropriate Federal agencies as determined by the Secretary, and representatives of States the waters of which may be affected by the discharge of ballast water; or

(II) undertake discharge of ballast water in accordance with paragraph (6) if safety or stability concerns prevent undertaking ballast water exchange in the alternative area.

(D) REVIEW OF CIRCUMSTANCES.—If the master of a vessel conducts a ballast water discharge under the provisions of this paragraph, the Secretary shall review the circumstances to determine whether the discharge met the requirements of this paragraph. The review under this clause shall be in addition to any other enforcement authority of the Secretary.

(5) DISCHARGE UNDER WAIVER.—

(A) SUBSTANTIAL BUSINESS HARDSHIP WAIVER.—If, because of the short length of a voyage, the operator of a vessel is unable to discharge ballast water in accordance with the requirements of paragraph (3)(B) without substantial business hardship, as determined under regulations prescribed by the Secretary, the operator shall request a waiver from the Secretary and discharge the ballast water in accordance with paragraph (6). A request for a waiver under this subparagraph shall be submitted to the Secretary at such time and in such form and manner as the Secretary may require.

(B) SUBSTANTIAL BUSINESS HARDSHIP.—For purposes of subparagraph (A), the factors taken into account in determining substantial business hardship shall include whether—

(i) compliance with the requirements of paragraph (3)(B) would require a sufficiently great change in routing or scheduling of service as to compromise the economic or commercial viability of the trade or business in which the vessel is operated; or

(ii) it is reasonable to expect that the trade or business or service provided will be continued only if a waiver is granted under subparagraph (A).

(6) PERMISSABLE DISCHARGE.—

(A) IN GENERAL.—The discharge of unexchanged ballast water shall be considered to be carried out in accordance with this paragraph if it is—

(i) in an area designated for that purpose by the Secretary, after consultation with the Undersecretary and

other appropriate Federal agencies as determined by the Secretary and representatives of any State that may be affected by discharge of ballast water in that area; or

(ii) into a reception facility described in subsection (f)(2).

(B) *LIMITATION ON VOLUME.*—The volume of any ballast water discharged under the provisions of this paragraph may not exceed the volume necessary to ensure the safe operation of the vessel.

(7) *PARTIAL COMPLIANCE.*—The operator of a vessel that is unable to comply fully with the requirements of paragraph (3)—

(A) shall nonetheless conduct ballast water exchange to the maximum extent feasible in compliance with those paragraphs; and

(B) may conduct a partial ballast water exchange under this paragraph only to the extent that the ballast water in an individual ballast tank can be completely exchanged in accordance with the provisions of paragraph (1)(A).

(8) *CERTAIN GEOGRAPHICALLY LIMITED ROUTES.*—Notwithstanding paragraph (3)(B) of this subsection, the operator of a vessel is not required to comply with the requirements of this subsection—

(A) if the vessel operates exclusively—

(i) within Lake Superior, Lake Michigan, Lake Huron, Lake Ontario, and Lake Erie and the connecting channels; or

(ii) between or among the main group of the Hawaiian Islands; or

(B) if the vessel operates exclusively within any area with respect to which the Secretary has determined, after consultation with the Undersecretary, the Administrator, and concurrence by the State whose state waters would be affected by the discharge of ballast water, that the risk of introducing aquatic nuisance species through ballast water discharge in the areas in which the vessel operates is insignificant.

(9) *MARINE SANCTUARIES AND OTHER PROHIBITED AREAS.*—

(A) *IN GENERAL.*—A vessel may not discharge ballast water or sediment containing aquatic nuisance species within—

(i) a marine sanctuary designated under title III of the National Marine Sanctuaries Act (16 U.S.C. 1431 et. Seq.);

(ii) a national marine monument designated under the Antiquities Act of 1906; or

(iii) an area designated by the Secretary in any other waters, after consultation with the Undersecretary and the Administrator and opportunity for public comment, that meet the criteria established pursuant to subparagraph (B) of this paragraph.

(B) *ADDITIONAL AREAS.*—The Secretary shall, after consultation with the Undersecretary, the Administrator and other appropriate Federal and State agencies, as determined by the Secretary, and opportunity for public com-

ment, establish criteria for designating additional areas in which, due to their sensitive ecological nature, restrictions on the discharge of vessel ballast water or sediment containing aquatic nuisance species are warranted.

(C) *STATE WATERS.*—The governor of any State may submit a written petition to the Secretary to designate an area of State waters under subparagraph (A)(iii) that meets the criteria established under subparagraph (B) of this paragraph. The petition shall include a detailed analysis as to how the area proposed to be designated meets those criteria. An area may not be designated under this paragraph until the Secretary determines, based on evidence provided by the governor, that adequate alternative areas or reception facilities for discharging ballast water or sediment are available. Within 180 days after receiving such a petition, the Secretary shall—

(i) make a determination as to whether the proposal meets the requirements of this paragraph for designation, and

(ii) either—

(I) publish a written notice of the petition and the proposed restrictions in the Federal Register; or

(II) notify the governor in writing that the area proposed for designation does not qualify for designation under this paragraph and include in the notice a detailed explanation of why the area does not qualify for designation under this paragraph.

(D) *PROCEDURE; DEADLINE.*—Before designating any area under subparagraph (A)(iii), whether on the Secretary's initiative or in response to a petition under subparagraph (C), the Secretary, after providing an opportunity for public comment, shall publish notice in the Federal Register of the proposed designation. The Secretary and the Undersecretary shall make such information available through other appropriate mechanisms, including a notice to mariners and inclusion on nautical charts. The designation of an area by the Secretary under subparagraph (A)(iii) may not take effect less than 180 days after the publishing of such notice.

(E) *EFFECT ON STATE LAW.*—Nothing in this paragraph supersedes any State law in effect as of January 1, 2007, that restricts the discharge of ballast water or sediment in State waters and requires such discharges to be made into reception facilities.

(10) *REGULATIONS DEADLINE.*—The Secretary shall issue a final rule for regulations required by this subsection within 1 year after the date of enactment of the Ballast Water Management Act of 2007.

(11) *VESSELS OPERATING IN THE GREAT LAKES.*—

(A) *REGULATIONS.*—Until such time as regulations are promulgated to implement the amendments made by the Ballast Water Management Act of 2007, regulations promulgated to carry out this Act shall remain in effect until revised or replaced pursuant to the Ballast Water Management Act of 2007.

(B) *RELATIONSHIP TO OTHER PROGRAMS.*—On promulgation of regulations required under this Act to implement a national mandatory ballast management program that is at least as comprehensive as the Great Lakes program (as determined by the Secretary, in consultation with the Governors of Great Lakes States)—

- (i) the program regulating vessels and ballast water in Great Lakes under this section shall terminate; and
- (ii) the national program shall apply to such vessels and ballast water.

(12) *VESSELS WITH NO BALLAST ON BOARD.*—Not later than 180 days after the date of enactment of the Ballast Water Management Act of 2007, the Secretary shall promulgate regulations to minimize the discharge of invasive species from ships entering a United States port or place from outside the United States exclusive economic zone that claim no ballast on board, or that claim to be carrying only unpumpable quantities of ballast, including, at a minimum, a requirement that—

- (i) such a ship shall conduct saltwater flushing of ballast water tanks—
 - (I) outside the exclusive economic zone; or
 - (II) at a designated alternative exchange site;
 and
- (ii) before being allowed entry into the Great Lakes beyond the St. Lawrence Seaway, the master of such a ship shall certify that the ship has complied with each applicable requirement under this subsection.

(f) *BALLAST WATER TREATMENT REQUIREMENTS.*—

(1) *PERFORMANCE STANDARDS.*—A vessel to which this section applies shall conduct ballast water treatment in accordance with the requirements of this subsection before discharging ballast water so that the ballast water discharged will contain—

- (A) less than 1 living organism per 10 cubic meters that is 50 or more micrometers in minimum dimension;
- (B) less than 1 living organism per 10 milliliters that is less than 50 micrometers in minimum dimension and more than 10 micrometers in minimum dimension;
- (C) concentrations of indicator microbes that are less than—

- (i) 1 colony-forming unit of toxicogenic *Vibrio cholera* (serotypes O1 and O139) per 100 milliliters, or less than 1 colony-forming unit of that microbe per gram of wet weight of zoological samples;

- (ii) 126 colony-forming units of *escherichia coli* per 100 milliliters; and

- (iii) 33 colony-forming units of intestinal enterococci per 100 milliliters; and

- (D) concentrations of such additional indicator microbes, and of viruses, as may be specified in regulations promulgated by the Administrator, after consultation with the Secretary and other appropriate Federal and State agencies as determined by the Administrator, that are less than the amount specified in those regulations.

(2) *RECEPTION FACILITY EXCEPTION.*—

(A) *IN GENERAL.*—Paragraph (1) does not apply to a vessel that discharges ballast water into a facility for the reception of ballast water that meets standards prescribed by the Administrator.

(B) *PROMULGATION OF STANDARDS.*—Within 1 year after the date of enactment of the Ballast Water Management Act of 2007, the Administrator, in consultation with the Secretary and other appropriate Federal and State agencies as determined by the Administrator, shall promulgate standards for—

(i) the reception of ballast water from vessels into reception facilities; and

(ii) the disposal or treatment of such ballast water in a way that does not impair or damage the environment, human health, property, or resources.

(3) *IMPLEMENTATION SCHEDULE.*—Paragraph (1) applies to all vessels to which this section applies on January 1, 2012. Based on the outcome of the feasibility review conducted under paragraph (5), the Secretary may require different classes of vessels to comply with paragraph (1) on a different schedule, and shall establish different classes of vessels for this purpose through regulations under this section.

(4) *TREATMENT SYSTEM APPROVAL REQUIRED.*—The operator of a vessel may not use a ballast water treatment system to comply with the requirements of this subsection unless the system is approved by the Secretary, in consultation with the Administrator. The Secretary shall promulgate regulations establishing a process for such approval, after consultation with the Administrator and other appropriate Federal agencies as determined by the Secretary, within 1 year after the date of enactment of the Ballast Water Management Act of 2007.

(5) *FEASIBILITY REVIEW.*—

(A) *IN GENERAL.*—Not less than 2 years before January 1, 2012, or as that date may be extended under this paragraph, the Secretary, in consultation with the Administrator, shall complete a review to determine whether appropriate technologies are available to achieve the standards set forth in paragraph (1). In reviewing the technologies the Secretary, after consultation with the Administrator and other appropriate Federal agencies as determined by the Secretary, shall consider—

(i) the effectiveness of a technology in achieving the standards;

(ii) feasibility in terms of compatibility with ship design and operations;

(iii) safety considerations;

(iv) whether a technology has an adverse impact on the environment; and

(v) cost effectiveness.

(B) *DELAY IN SCHEDULED APPLICATION.*—If the Secretary determines, on the basis of the review conducted under subparagraph (A), that technology that complies with the standards set forth in paragraph (1) in accordance with the schedule set forth in paragraph (3), or as that date may be extended under this paragraph, is not available or cost-ef-

fective for any class of vessels, the Secretary shall require use of cost-effective technology that achieves the performance levels of the best performing technology available that meets, at a minimum, the applicable ballast water discharge standard of the International Maritime Organization. If the Secretary finds that no technology is available that will achieve either the standards set forth in paragraph (1) or the standards of the International Maritime Organization, then, the Secretary shall—

- (i) extend the date on which that paragraph applies to vessels for a period of not more than 24 months; and
- (ii) recommend action to ensure that compliance with the extended date schedule for that subparagraph is achieved.

(C) HIGHER STANDARDS; EARLIER IMPLEMENTATION.—

(i) STANDARDS.—If the Secretary determines that ballast water treatment technology exists that exceeds the performance standards required under paragraph (1) of this subsection, the Secretary shall, for any class of vessels, revise the performance standards to incorporate the higher performance standards.

(ii) IMPLEMENTATION.—If the Secretary determines that technology that achieves the applicable performance standards required under paragraph (1) of this subsection can be implemented earlier than required by this subsection, the Secretary shall, for any class of vessels, accelerate the implementation schedule under paragraph (3). If the Secretary accelerates the implementation schedule pursuant to this clause, the Secretary shall provide at least 24 months notice before such accelerated implementation goes into effect.

(iii) DETERMINATIONS NOT MUTUALLY EXCLUSIVE.—The Secretary shall take action under both clause (i) and clause (ii) if the Secretary makes determinations under both clauses.

(6) DELAY OF APPLICATION FOR VESSEL PARTICIPATING IN PROMISING TECHNOLOGY EVALUATIONS.—

(A) IN GENERAL.—If a vessel participates in a program approved by the Secretary to test and evaluate promising ballast water treatment technologies that are likely to result in treatment technologies achieving a standard that is the same as or more stringent than the standard that applies under paragraph (1) before the first date on which paragraph (1) applies to that vessel, the Secretary shall allow the vessel to use that technology for a 10-year period and such vessel shall be deemed to be in compliance with the requirements of paragraph (1) during that 10-year period.

(B) VESSEL DIVERSITY.—The Secretary—

- (i) shall seek to ensure that a wide variety of vessel types and voyages are included in the program; but
- (ii) may not grant a delay under this paragraph to more than 5 percent of the vessels to which subparagraph (A), (B), (C), or (D) of paragraph (3) applies.

(C) TERMINATION OF GRACE PERIOD.—The Secretary may terminate the 10-year grace period of a vessel under sub-

paragraph (A) if participation of the vessel in the program is terminated without the consent of the Secretary.

(D) ANNUAL RE-EVALUATION; TERMINATION.—The Secretary shall establish an annual evaluation process to determine whether the performance of an approved technology is sufficiently effective and whether it is causing harm to the environment. If the Secretary determines that an approved technology is insufficiently effective or is causing harm to the environment, the Secretary shall revoke the approval granted under subparagraph (A).

(7) REVIEW OF STANDARDS.—

(A) IN GENERAL.—In December, 2014, and in every third year thereafter, the Administrator, in consultation with the Secretary, shall review ballast water treatment standards to determine, after consultation with the Undersecretary and Federal and State agencies as determined by the Administrator, if the standards under this subsection should be revised to reduce the amount of organisms, microbes, or viruses allowed to be discharged, taking into account improvements in the scientific understanding of biological processes leading to the spread of aquatic nuisance species and improvements in ballast water treatment technology. The Administrator shall revise by regulation the performance standard required under this subsection as necessary.

(B) APPLICATION OF ADJUSTED STANDARDS.—In the regulations, the Secretary shall provide for the prospective application of the adjusted standards prescribed under this paragraph to vessels constructed after the date on which the adjusted standards apply and for an orderly phase-in of the adjusted standards to existing vessels.

(8) INSTALLED EQUIPMENT.—If ballast water treatment technology used for purposes of complying with the regulations under this subsection is installed on a vessel, maintained in good working order, and used by the vessel, the vessel may use that technology for the shortest of—

(A) the 10-year period beginning on the date of initial use of technology required by paragraph (1);

(B) and the 5-year period beginning on the date of initial use of technology that, at a minimum, meets International Maritime Organization standards; or

(C) the life of the ship on which the technology is used.

(9) HIGH-RISK VESSELS.—

(A) VESSEL LIST.—Within 1 year after the date of enactment of the Ballast Water Management Act of 2007, the Secretary shall publish a list of vessels identified by States that, due to factors such as the origin of their voyages, the frequency of their voyages, the volume of ballast water they carry, the biological makeup of the ballast water, or the fact that they frequently discharge unexchanged ballast water pursuant to an exception under subsection (e), pose a relatively high risk of introducing aquatic nuisance species into the waters of those States. The Secretary shall update the list after any calendar quarter in which new vessels are identified by States under the preceding sentence.

(B) *INCENTIVE PROGRAMS.*—The Secretary shall give priority to vessels on the list for participation in pilot programs described in paragraph (6). Any Federal agency, and any State agency with respect to vessels identified by such State to the Secretary for inclusion on the list pursuant to subparagraph (A), may develop technology development programs or other incentives (whether positive or negative) to such vessels in order to encourage the adoption of ballast water treatment technology by those vessels consistent with the requirements of this section on an expedited basis.

(10) *EXCEPTION FOR VESSELS OPERATING EXCLUSIVELY IN DETERMINED AREA.*—

(A) *IN GENERAL.*—Paragraph (1) and subsection (h)(1) do not apply to a vessel that operates exclusively within a geographically limited area if the Secretary has determined through a rulemaking proceeding, after consultation with the Undersecretary and other appropriate Federal agencies as determined by the Secretary, and representatives of States the waters of which could be affected by the discharge of ballast water or sediment, that the risk of introducing and spreading aquatic nuisance species through ballast water or sediment discharge from the vessel is insignificant.

(B) *CERTAIN VESSELS.*—A vessel constructed before January 1, 2001, that operates exclusively within Lake Superior, Lake Michigan, Lake Huron, and Lake Erie and the connecting channels shall be presumed not to pose a significant risk of introducing aquatic nuisance species unless the Secretary finds otherwise in a rulemaking proceeding under subparagraph (A).

(C) *BEST PRACTICES.*—The Secretary shall develop, and require vessels exempted under subparagraph (A) to follow, best practices, developed in consultation with the Governors or States that may be affected, to minimize the spreading of aquatic nuisance species or infectious diseases in its operating area.

(11) *TESTING PROTOCOLS AND LABORATORIES.*—

(A) *IN GENERAL.*—The Secretary, in consultation with the Administrator, shall, no later than 90 days after the date of enactment of the Ballast Water Management Act of 2007 and without regard to chapter 5 of title 5, United States Code, issue interim protocols for verifying the performance of ballast water treatment technologies required by this Act, criteria for certifying laboratories to evaluate such technologies, and procedures for approving treatment equipment and systems for shipboard use.

(B) *PROTOCOLS AND PROCEDURES FOR TREATMENT TECHNOLOGIES.*—In developing protocols and procedures for verifying and approving treatment technologies, the Secretary, in consultation with the Administrator, shall consider using existing protocols and procedures including methods used as part of the Ballast Water Management Demonstration Program by the Environmental Protection Agency as a part of its Environmental Testing &

Verification Program, or by the Secretary as part of the Coast Guard's Shipboard Technology Evaluation Program.

(C) LABORATORIES.—The Secretary shall utilize Federal or non-Federal laboratories that meet standards established by the Secretary for the purpose of evaluating and certifying ballast water treatment technologies and equipment under this subsection.

(D) REQUIREMENTS; UPDATES.—The Secretary, in consultation with the Administrator, shall periodically review and, if necessary, revise the criteria, protocols, and procedures developed under this paragraph.

(g) WARNINGS CONCERNING BALLAST WATER UPTAKE.—

(1) IN GENERAL.—The Secretary shall notify vessel owners and operators of any area in waters subject to the jurisdiction of the United States in which vessels may not uptake ballast water due to known conditions.

(2) CONTENTS.—The notice shall include—

(A) the coordinates of the area;

(B) if possible, the location of alternative areas for the uptake of ballast water; and

(C) the length of time that such warning shall remain in place.

(h) SEDIMENT MANAGEMENT.—

(1) IN GENERAL.—The operator of a vessel to which this section applies may not remove or dispose of sediment from spaces designed to carry ballast water except—

(A) in accordance with this subsection and the ballast water management plan required under subsection (c); and

(B) more than 200 nautical miles from the nearest point of land or into a reception facility that meets the requirements of paragraph (3).

(2) DESIGN REQUIREMENTS.—

(A) NEW VESSELS.—After December 31, 2011, it shall be unlawful to construct a vessel in the United States to which this section applies unless that vessel is designed and constructed, in accordance with regulations prescribed under subparagraph (C), in a manner that—

(i) minimizes the uptake and entrapment of sediment;

(ii) facilitates removal of sediment; and

(iii) provides for safe access for sediment removal and sampling.

(B) EXISTING VESSELS.—Every vessel to which this section applies that was constructed before January 1, 2012, shall be modified before January 1, 2012, to the extent practicable, to achieve the objectives described in clauses (i), (ii), and (iii) of subparagraph (A).

(C) REGULATIONS.—The Secretary shall promulgate regulations establishing design and construction standards to achieve the objectives of subparagraph (A) and providing guidance for modifications and practices under subparagraph (B). The Secretary shall incorporate the standards and guidance in the regulations governing the ballast water management plan.

(3) SEDIMENT RECEPTION FACILITIES.—

(A) *STANDARDS.*—The Administrator, in consultation with other appropriate Federal agencies as determined by the Administrator, shall promulgate regulations governing facilities for the reception of vessel sediment from spaces designed to carry ballast water that provide for the disposal of such sediment in a way that does not impair or damage the environment, human health, or property or resources of the disposal area.

(B) *DESIGNATION.*—The Administrator, in consultation with the Secretary and other appropriate Federal agencies as determined by the Administrator, shall designate facilities for the reception of vessel sediment that meet the requirements of the regulations promulgated under subparagraph (A) at ports and terminals where ballast tanks are cleaned or repaired.

(i) *EXAMINATIONS AND CERTIFICATIONS.*—

(1) *INITIAL EXAMINATION.*—

(A) *IN GENERAL.*—The Secretary shall examine vessels to which this section applies to determine whether—

(i) there is a ballast water management plan for the vessel that meets the requirements of this section; and

(ii) the equipment used for ballast water and sediment management in accordance with the requirements of this section and the regulations promulgated hereunder is installed and functioning properly.

(B) *NEW VESSELS.*—For vessels constructed in the United States on or after January 1, 2011, the Secretary shall conduct the examination required by subparagraph (A) before the vessel is placed in service.

(C) *EXISTING VESSELS.*—For vessels constructed before January 1, 2011, the Secretary shall—

(i) conduct the examination required by subparagraph (A) before the date on which subsection (f)(1) applies to the vessel according to the schedule in subsection (f)(3); and

(ii) inspect the vessel's ballast water record book required by subsection (d).

(D) *FOREIGN VESSELS.*—In the case of a foreign vessel (as defined in section 2101(12) of title 46, United States Code), the Secretary shall perform the examination required by this paragraph the first time the vessel enters a United States port.

(2) *SUBSEQUENT EXAMINATIONS.*—The Secretary shall examine vessels no less frequently than once each year to ensure vessel compliance with the requirements of this section.

(3) *INSPECTION AUTHORITY.*—

(A) *IN GENERAL.*—The Secretary may carry out inspections of any vessel to which this section applies at any time, including the taking of ballast water samples, to ensure the vessel's compliance with this Act. The Secretary shall use all appropriate and practical measures of detection and environmental monitoring, and shall establish adequate procedures for reporting violations and accumulating evidence.

(B) *INVESTIGATIONS.*—Upon receipt of evidence that a violation has occurred, the Secretary shall cause the matter

to be investigated. In any investigation under this section the Secretary may issue subpoenas to require the attendance of any witness and the production of documents and other evidence. In case of refusal to obey a subpoena issued to any person, the Secretary may request the Attorney General to invoke the aid of the appropriate district court of the United States to compel compliance.

(4) *REQUIRED CERTIFICATE.*—If, on the basis of an initial examination under paragraph (1) the Secretary finds that a vessel complies with the requirements of this section and the regulations promulgated hereunder, the Secretary shall issue a certificate under this paragraph as evidence of such compliance. The certificate shall be valid for a period of not more than 5 years, as specified by the Secretary. The certificate or a true copy shall be maintained on board the vessel.

(5) *NOTIFICATION OF VIOLATIONS.*—If the Secretary finds, on the basis of an examination under paragraph (1) or (2), sampling under paragraph (3), or any other information, that a vessel is being operated in violation of the requirements of this section or the regulations promulgated hereunder, the Secretary shall—

(A) notify in writing—

(i) the master of the vessel; and

(ii) the captain of the port at the vessel's next port of call; and

(B) take such other action as may be appropriate.

(6) *COMPLIANCE AND MONITORING.*—

(A) *IN GENERAL.*—The Secretary shall by regulation establish sampling and other procedures to monitor compliance with the requirements of this section and any regulations promulgated under this section.

(B) *USE OF MARKERS.*—The Secretary may verify compliance with treatment standards under this section and the regulations through identification of markers associated with a treatment technology's effectiveness, such as the presence of indicators associated with a certified treatment technology.

(7) *EDUCATION AND TECHNICAL ASSISTANCE PROGRAMS.*—The Secretary may carry out education and technical assistance programs and other measures to promote compliance with the requirements issued under this section.

(8) *REPORT.*—Beginning 1 year after final regulations have been adopted pursuant to this section after its amendment by the Ballast Water Management Act of 2007 and annually thereafter, the Secretary shall prepare a report summarizing the results of ballast water inspection and enforcement activities. The report shall, at a minimum, include information on the number of vessels inspected and the type of inspections, the status of implementation of treatment technologies, the number of exemptions claimed from ballast water exchange requirements, the number of violations, a summary of enforcement and regulatory actions, and overall compliance statistics. The report shall be made available on the National Ballast Information Clearinghouse established under section 1102(f).

(j) *DETENTION OF VESSELS.*—

(1) *IN GENERAL.*—The Secretary, by notice to the owner, charterer, managing operator, agent, master, or other individual in charge of a vessel, may detain that vessel if the Secretary has reasonable cause to believe that—

(A) the vessel is a vessel to which this section applies; and

(B) the vessel does not comply with the requirements of this section or of the regulations issued hereunder or is being operated in violation of such requirements.

(2) *CLEARANCE.*—

(A) *IN GENERAL.*—A vessel detained under paragraph (1) may obtain clearance under section 4197 of the Revised Statutes (46 U.S.C. App. 91) only if the violation for which it was detained has been corrected.

(B) *WITHDRAWAL.*—If the Secretary finds that a vessel detained under paragraph (1) has received a clearance under section 4197 of the Revised Statutes (46 U.S.C. App. 91) before it was detained under paragraph (1), the Secretary shall withdraw, withhold, or revoke the clearance.

(k) *SANCTIONS.*—

(1) *CIVIL PENALTIES.*—Any person who violates a regulation promulgated under this section shall be liable for a civil penalty in an amount not to exceed \$32,500. Each day of a continuing violation constitutes a separate violation. A vessel operated in violation of this section or the regulations is liable in rem for any civil penalty assessed under this subsection for that violation.

(2) *CRIMINAL PENALTIES.*—Any person who knowingly violates the regulations promulgated under this section is guilty of a class C felony.

(3) *REVOCAION OF CLEARANCE.*—Except as provided in subsection (j)(2), upon request of the Secretary, the Secretary of the Treasury shall withhold or revoke the clearance of a vessel required by section 4197 of the Revised Statutes (46 U.S.C. App. 91), if the owner or operator of that vessel is in violation of this section or the regulations issued under this section.

(4) *EXCEPTION TO SANCTIONS.*—This subsection does not apply to a discharge pursuant to subsection (b)(2), (e)(5), or (e)(7).

(l) *ENFORCEMENT.*—

(1) *ADMINISTRATIVE ACTIONS.*—If the Secretary finds, after notice and an opportunity for a hearing, that a person has violated any provision of this section or any regulation promulgated hereunder, the Secretary may assess a civil penalty for that violation. In determining the amount of a civil penalty, the Secretary shall take into account the nature, circumstances, extent, and gravity of the prohibited acts committed and, with respect to the violator, the degree of culpability, any history of prior violations, and such other matters as justice may require.

(2) *CIVIL ACTIONS.*—At the request of the Secretary, the Attorney General may bring a civil action in an appropriate district court of the United States to enforce this section, or any regulation promulgated hereunder. Any court before which such an action is brought may award appropriate relief, including temporary or permanent injunctions and civil penalties.

(m) *CONSULTATION WITH CANADA, MEXICO, AND OTHER FOREIGN GOVERNMENTS.*—In developing the guidelines issued and regulations promulgated under this section, the Secretary is encouraged to consult with the Government of Canada, the Government of Mexico, and any other government of a foreign country that the Secretary, after consultation with the Task Force, determines to be necessary to develop and implement an effective international program for preventing the unintentional introduction and spread of aquatic nuisance species through ballast water.

(n) *INTERNATIONAL COOPERATION.*—The Secretary, in cooperation with the Undersecretary, the Secretary of State, the Administrator, the heads of other relevant Federal agencies, the International Maritime Organization of the United Nations, and the Commission on Environmental Cooperation established pursuant to the North American Free Trade Agreement, is encouraged to enter into negotiations with the governments of foreign countries to develop and implement an effective international program for preventing the unintentional introduction and spread of aquatic nuisance species through ballast water. The Secretary is particularly encouraged to seek bilateral or multilateral agreements with Canada, Mexico, and other nations in the Wider Caribbean (as defined in the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean (Cartagena Convention) under this section.

(o) *NON-DISCRIMINATION.*—The Secretary shall ensure that vessels registered outside of the United States do not receive more favorable treatment than vessels registered in the United States when the Secretary performs studies, reviews compliance, determines effectiveness, establishes requirements, or performs any other responsibilities under this Act.

(p) *SUPPORT FOR FEDERAL BALLAST WATER DEMONSTRATION PROJECT.*—In addition to amounts otherwise available to the Maritime Administration, the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, and the United States Fish and Wildlife Service for the Federal Ballast Water Demonstration Project, the Secretary shall provide support, including grants, for research and development of innovative technologies for the management, treatment, and disposal of ballast water and sediment, for finalizing the validation testing of the verification protocol of the Environmental Technology Verification Program, for ballast water exchange, and for other vessel vectors of aquatic nuisance species such as hull-fouling. There are authorized to be appropriated to the Secretary \$5,000,000 for each of fiscal years 2008 through 2012 to carry out this subsection.

(q) *CONSULTATION WITH TASK FORCE.*—The Secretary shall consult with the Task Force in carrying out this section.

(r) *EVALUATION OF VESSEL DISCHARGES.*—

(1) *IN GENERAL.*—Within 2 years after the date of enactment of the Ballast Water Management Act of 2007, the Administrator, in consultation with the Secretary and other appropriate Federal agencies, shall conduct an evaluation of vessel discharges other than aquatic nuisance species, incidental to the normal operation of a vessel as defined in section 312(a)(12)(A) of the Clean Water Act (33 U.S.C. 1322(a)(12)(A)) that are not required by the Clean Water Act (33 U.S.C. 1251 et seq.) to have National Pollution Effluent Discharge Standards permits under

section 122.3(a) of title 40, Code of Federal Regulations. The evaluation shall include—

- (A) a characterization of the various types of discharges by different classes of vessels;
 - (B) the average volume of such discharges for individual vessels and by class of vessel in the aggregate;
 - (C) conclusions as to whether such discharges pose a risk to human health or the environment; and
 - (D) recommendations as to steps, including regulations, that are necessary to address such risks.
- (2) *PUBLIC COMMENT.*—The Administrator shall cause a draft of the evaluation to be published in the Federal Register for public comment, and shall develop a final evaluation report after taking into accounts any comments received during the public comment period.
- (3) *FINAL REPORT.*—The Administrator shall transmit a copy of the final report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure.

(s) *OTHER SOURCES OF VESSEL-BORNE NUISANCE SPECIES.*—

(1) *HULL-FOULING AND OTHER VESSEL SOURCES.*—

(A) *REPORT.*—Within 180 days after the date of enactment of the Ballast Water Management Act of 2007, the Commandant of the Coast Guard shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure on vessel-borne vectors of aquatic nuisance species and pathogens other than ballast water and sediment, including vessel hulls, anchors, and equipment.

(B) *MANAGEMENT.*—Within 1 year after the date of enactment of the Ballast Water Management Act of 2007, the Secretary shall develop a strategy to address such other vessel sources of aquatic nuisance species and to reduce the introduction of invasive species into and within the United States from vessels. The strategy shall include—

- (i) designation of geographical locations for uptake and discharge of untreated ballast water, as well as measures to address non-ballast vessel vectors of aquatic invasive species;
- (ii) necessary modifications of existing regulations;
- (iii) best practices standards and procedures; and
- (iv) a timeframe for implementation of those standards and procedures by vessels, in addition to the mandatory requirements set forth in this section for ballast water.

(C) *REPORT.*—The Secretary shall transmit a report to the Committees describing the strategy, proposed regulations, best practices, and the implementation timeframe, together with any recommendations, including legislative recommendations if appropriate, the Secretary deems appropriate.

(D) *FEDERAL GOVERNMENT VESSELS.*—The strategy shall include requirements to ensure the consistent application of best practices to all vessels owned or operated by any Fed-

eral agency or department and shall preempt any other requirement of Federal, State, or local law with respect to such vessel-borne vectors for those vessels.

(2) *TRANSITING VESSELS.*—Within 180 days after the date of enactment of the Ballast Water Management Act of 2007, the Commandant of the Coast Guard shall transmit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Transportation and Infrastructure containing—

(A) an assessment of the magnitude and potential adverse impacts of ballast water operations from foreign vessels designed, adapted, or constructed to carry ballast water that are transiting waters subject to the jurisdiction of the United States; and

(B) recommendations, including legislative recommendations if appropriate, of options for addressing ballast water operations of those vessels.

(t) *RAPID RESPONSE PLAN.*—

(1) *PREPARATION.*—The President shall prepare and publish a national rapid response plan for killing, removing, or minimizing the spread of aquatic nuisance species in the waters of the United States in accordance with this section.

(2) *CONTENTS.*—The national rapid response plan shall provide for efficient, coordinated, and effective action to minimize damage from aquatic nuisance species in the navigable waters of the United States, including killing, containing, and removal of the aquatic nuisance species, and shall include the following:

(A) Assignment of duties and responsibilities among Federal departments and agencies in coordination with State and local agencies and port authorities and private entities.

(B) Identification, procurement, maintenance, and storage of equipment and supplies needed to facilitate the killing, containment, and removal of aquatic nuisance species under this section.

(C) Establishment or designation of Federal aquatic nuisance species response teams, consisting of—

(i) trained personnel who shall be available to provide necessary services to carry out the national rapid response plan;

(ii) adequate equipment and material needed to facilitate the killing, containment, and removal of aquatic nuisance species under this section; and

(iii) a detailed plans to kill, contain, and remove aquatic nuisance species, including measures to protect fisheries and wildlife.

(D) A system of surveillance and notice designed to safeguard against, as well as ensure earliest possible notice of, the introduction of aquatic nuisance species and imminent threats of such introduction to the appropriate State and Federal agencies.

(E) Establishment of a national center to provide coordination and direction for operations in carrying out the plan.

(F) *Procedures and techniques to be employed in identifying, containing, killing, and removing aquatic nuisance species in the waters of the United States.*

(G) *A schedule identifying—*

(i) *mitigating devices and substances, if any, that may be used in carrying out the plan;*

(ii) *the waters in which such mitigating devices and substances may be used; and*

(iii) *the quantities of such mitigating device or substance which can be used safely in such waters.*

(H) *A system whereby the State or States affected by an aquatic nuisance species may act where necessary to remove such species.*

(I) *Establishment of criteria and procedures to ensure immediate and effective Federal identification of, and response to, an introduction of aquatic nuisance species.*

(J) *Designation of the Federal official who shall be the Federal on-scene coordinator for measures taken to kill, contain, and remove aquatic nuisance species under this section.*

(K) *A fish and wildlife response plan for the immediate and effective protection, rescue, and rehabilitation of, and the minimization of risk of damage to, fish and wildlife resources and their habitat that are harmed or that may be jeopardized by an introduction of an aquatic nuisance species.*

(3) **FEDERAL REMOVAL AUTHORITY.—**

(A) **REMOVAL REQUIREMENT.—**

(i) **IN GENERAL.—***The President shall ensure, in accordance with the national rapid response plan, effective and immediate killing, containing, and removal of the aquatic nuisance species in the waters of the United States.*

(ii) **DISCRETIONARY AUTHORITY.—***Under the authority provided by clause (i), an aquatic nuisance species may be—*

(I) *killed, contained, or removed at any time; and*

(II) *all Federal, State, and private actions to kill, contain, and remove the aquatic nuisance species may be directed or monitored.*

(B) **ACTIONS IN ACCORDANCE WITH NATIONAL RAPID RESPONSE PLAN.—***Each Federal agency, State, owner or operator, or other person participating in efforts under this subsection shall act in accordance with the national rapid response plan or as directed to carry out the plan.*

(u) **REGULATIONS.—**

(1) **IN GENERAL.—***The Secretary, after consultation with other appropriate Federal agencies, shall issue such regulations as may be necessary initially to carry out this section within 1 year after the date of enactment of the Ballast Water Management Act of 2007.*

(2) **JUDICIAL REVIEW.—**

(A) **120-DAY RULE.—***An interested person may bring an action for review of a final regulation promulgated under*

this section by the Secretary of the department in which the Coast Guard is operating in the United States Court of Appeals for the District of Columbia Circuit. Any such petition shall be filed within 120 days after the date on which notice of the promulgation appears in the Federal Register, except that if the petition is based solely on grounds arising after the 120th day, then any petition for review under this subsection shall be filed within 120 days after those grounds arise.

(B) REVIEW IN ENFORCEMENT PROCEEDINGS.—A regulation for which review could have been obtained under subparagraph (A) of this paragraph is not subject to judicial review in any civil or criminal proceeding for enforcement.

(3) RIGHT OF ACTION.—

(A) IN GENERAL.—Except as provided in subparagraph (B) of this paragraph, the governor of any State which is, or can be, adversely affected by any act or duty under this section which is not discretionary, may bring an action on behalf of that State—

(i) against the Secretary where there is alleged a failure of the Secretary to perform an act or duty under this Act which is not discretionary; and

(ii) against the Administrator where there is alleged a failure of the Administrator to perform an act or duty under this Act which is not discretionary.

(B) CONDITIONS.—An action may not be commenced under subparagraph (A) of this paragraph prior to 60 days after the plaintiff has given notice, in writing and under oath, to the Secretary or Administrator, as appropriate.

(C) VENUE.—An action brought under this subsection shall be brought in the United States district court for the District of Columbia.

(v) STATE COOPERATIVE AGREEMENTS.—The Secretary may enter into a cooperative management agreement with the governor of a State to implement provisions of this section within State waters. The agreement may include arrangements for cooperative enforcement, inspection, research, and other provisions included in this Act. The Secretary may provide grants to States to implement the agreements.

(w) SAVINGS CLAUSE.—

(1) IN GENERAL.—Nothing in this section shall preempt any State or local law related to aquatic nuisance species from vessel ballast water or sediment or other vessel-related vectors that—

(A) does not require exchange or treatment requirements substantively different from those required under subsections (e) and (f); and

(B) does not conflict with the requirements of this section; and

(C) does not pose an undue burden on interstate commerce.

(2) RECEPTION FACILITIES.—The standards prescribed by the Administrator under subsection (f)(2) do not supersede any more stringent standard under any otherwise applicable Federal, State, or local law.

(3) *APPLICATION WITH OTHER STATUTES.*—*This section provides the sole Federal authority for preventing the introduction of aquatic nuisance species through the control and management of vessel ballast water or sediment or other vessel-related vectors.*

* * * * *

[SEC. 1103. ARMED SERVICES BALLAST WATER PROGRAMS.

[19 U.S.C. 4713]

[(a) DEPARTMENT OF DEFENSE VESSELS.—Subject to operational conditions, the Secretary of Defense, in consultation with the Secretary, the Task Force, and the International Maritime Organization, shall implement a ballast water management program for seagoing vessels of the Department of Defense to minimize the risk of introduction of nonindigenous species from releases of ballast water.

[(b) COAST GUARD VESSELS.—Subject to operational conditions, the Secretary, in consultation with the Task Force and the International Maritime Organization, shall implement a ballast water management program for seagoing vessels of the Coast Guard to minimize the risk of introduction of nonindigenous species from releases of ballast water.]

* * * * *

SEC. 1301. AUTHORIZATIONS.

[19 U.S.C. 4741]

(a) **PREVENTION OF UNINTENTIONAL INTRODUCTIONS.**—There are authorized to be appropriated to develop and implement the provisions of subtitle B—

(1) \$500,000 until the end of fiscal year 1992 to the Secretary to carry out sections 1101 and 1102(a)(3);

(2) \$2,000,000 until the end of fiscal year 1992 to the Director and Under Secretary to carry out the studies under sections 1102(a)(1) and 1102(a)(2);

(3) to the Secretary to carry out section 1101—

(A) \$2,000,000 for each of fiscal years 1997 and 1998; and

(B) \$3,000,000 for each of fiscal years 1999 through 2002;

(4) for each of fiscal years 1997 through 2002, to carry out paragraphs (1) and (2) of section 1102(b)—

(A) \$1,000,000 to the Department of the Interior, to be used by the Director; and

(B) \$1,000,000 to the Secretary; **[and]**

(5) for each of fiscal years 1997 through 2002—

(A) \$3,000,000, which shall be made available from funds otherwise authorized to be appropriated if such funds are so authorized, to the Under Secretary to carry out section 1102(e); and

(B) \$500,000 to the Secretary to carry out section **[1102(f).] 1102(f); and**

(6) \$50,000,000 for each of fiscal years 2008 through 2012 to the Secretary to carry out section 1101, of which up to \$10,000,000 shall be made available to States under subsection (v).

(b) **TASK FORCE AND AQUATIC NUISANCE SPECIES PROGRAM.**—There are authorized to be appropriated for each of fiscal years 1997 through 2002 to develop and implement the provisions of subtitle C—

(1) \$6,000,000 to the Department of the Interior, to be used by the Director to carry out sections 1202 and 1209;

(2) \$1,000,000 to the Department of Commerce, to be used by the Under Secretary to carry out section 1202;

(3) \$1,625,000, which shall be made available from funds otherwise authorized to be appropriated if such funds are so authorized, to fund aquatic nuisance species prevention and control research under section 1202(i) at the Great Lakes Environmental Research Laboratory of the National Oceanic and Atmospheric Administration, of which \$500,000 shall be made available for grants, to be competitively awarded and subject to peer review, for research relating to Lake Champlain;

(4) \$5,000,000 for competitive grants for university research on aquatic nuisance species under section 1202(f)(3) as follows:

(A) \$2,800,000, which shall be made available from funds otherwise authorized to be appropriated if such funds are so authorized, to fund grants under section 205 of the National Sea Grant College Program Act (33 U.S.C. 1124);

(B) \$1,200,000 to fund grants to colleges for the benefit of agriculture and the mechanic arts referred to in the first section of the Act of August 30, 1890 (26 Stat. 417, chapter 841; 7 U.S.C. 322); and

(C) \$1,000,000 to fund grants through the Cooperative Fisheries and Wildlife Research Unit Program of the United States Fish and Wildlife Service;

(5) \$3,000,000 to the Department of the Army, to be used by the Assistant Secretary to carry out section 1202(i)(1)(B); and

(6) \$300,000 to the Department of the Interior, to be used by the Director to fund regional panels and similar entities under section 1203, of which \$100,000 shall be used to fund activities of the Great Lakes Commission.

(c) **GRANTS FOR STATE MANAGEMENT PROGRAMS.**—There are authorized to be appropriated for each of fiscal years 1997 through 2002 \$4,000,000 to the Department of the Interior, to be used by the Director for making grants under section 1204, of which \$1,500,000 shall be used by the Director, in consultation with the Assistant Secretary, for management of aquatic nuisance vegetation species.

(d) **INTENTIONAL INTRODUCTIONS POLICY REVIEW.**—There are authorized to be appropriated for fiscal year 1991, \$500,000 to the Director and the Under Secretary to conduct the intentional introduction policy review under section 1207.

(e) **BALLAST WATER MANAGEMENT DEMONSTRATION PROGRAM.**—There are authorized to be appropriated \$2,500,000 to carry out section 1104.

(f) **RESEARCH.**—There are authorized to be appropriated to the Director \$1,000,000 to carry out research on the prevention, monitoring, and control of aquatic nuisance species in Narragansett Bay, Rhode Island. The funds shall be made available for use by

the Department of Environmental Management of the State of
Rhode Island.

