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

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-ICA
Phone: (202) 366-4280
FAX: (202) 366-7124

DEPARTMENT OF HOMELAND SECURITY

UNITED STATES COAST GUARD

STATEMENT OF

REAR ADMIRAL BRIAN SALERNO

ON

AIR POLLUTION FROM SHIPS (MARPOL ANNEX VI) AND BALLAST WATER MANAGEMENT

BEFORE THE

SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

July 11, 2006

Good morning Mister Chairman and distinguished Members of the Subcommittee. I am RDML Brian M. Salerno, Director of Inspections and Compliance at U.S. Coast Guard Headquarters. It is my pleasure to appear before you today to provide the Coast Guard's views on air pollution reduction from ships and ballast water management (BWM).

I would like to comment first on air pollution from ships.

In May 2005, Annex VI to the International Convention for the Prevention of Pollution from Ships, otherwise known as Annex VI to MARPOL 73/78, entered into force. At present, the United States is not yet a party to Annex VI. Annex VI addresses various aspects of air pollution from all ships including: limits in emissions of nitrogen oxides (NOx) from engines installed on or after January 2000; sulphur oxides (SOx) emissions; fuel quality of fuel consumed on ships; prohibition of new installations of equipment that use ozone depleting substances; design and operation of incinerators used on ships for managing ship-generated wastes; and adequacy of reception facilities to receive those specified wastes in Annex VI.

The Coast Guard played a leading role in the development and adoption of Annex VI at the International Maritime Organization (IMO). Additionally, the Coast Guard, Environmental Protection Agency, Department of State, Maritime Administration, National Oceanic and Atmospheric Administration, U.S. Navy, Minerals Management Service, and Department of Justice worked closely together through the interagency process to ensure that concerns and issues of interest to the United States were addressed. We are at the initial stage of working with the Environmental Protection Agency to ensure seamless development and deployment of the ensuing regulations to the maritime industry once implementing legislation have been enacted.

Annex VI represents the first time that air pollution and air quality issues from ships have been regulated internationally and creates a benchmark to build from as IMO parties seek to improve its effectiveness at reducing ship-source air pollution. In fact, IMO began efforts in July 2005 to consider such revisions to Annex VI. Issues currently under consideration include: more stringent limitations on NOx emissions from both new and existing engines; control of particulate matter (PM) from both new and existing marine engines; lowering of sulphur content levels in fuels; and control of emissions of volatile organic compounds (VOC) from cargoes during transit. United States ratification of Annex VI is extremely important to furthering our interests during the revision process at IMO. We are working to put into place implementing legislation which is one of the final remaining major steps towards ratification of Annex VI.

I would now like to comment on ballast water management.

The Coast Guard shares this Committee's concern with the significant environmental and economic damage that has been caused by aquatic invasive species introduced via the operations of vessels. While the United States has been a leader in international efforts to address this issue and we have made significant progress domestically, there is no question that the current legislative framework needs to be upgraded to move us to a greater level of protection. We are committed to working with Congress to identify actions that will substantially reduce the potential for damaging invasions through the ship pathway. We believe that aquatic invasive species present a complex national problem, which requires a comprehensive national solution and we are working diligently to provide that solution.

Initially in 1993, the Coast Guard implemented a ballast water management approach, which was mandatory for the Great Lakes. This was followed by a progression of voluntary and compulsory enhancements to the scheme, consistent with the authorities provided to us by Congress. In 2002, the

Coast Guard concluded that compliance was inadequate, and in July 2004 issued mandatory regulations for BWM and fouling management. The Coast Guard's BWM requirements apply to all vessels equipped with ballast tanks entering from outside the U.S. Exclusive Economic Zone, or EEZ, with the exception of DOD and Coast Guard vessels. Such vessels with ballast water aboard must conduct at least one of the following BWM practices: ballast water exchange; retain the ballast water on board; or use a USCG approved alternative BWM method. For non-Great Lakes waters there are safety exemptions and no requirement to divert or delay. Importantly, the existing authority does not directly cover vessels that carry ballast water between ports or places of the U.S. during voyages within the EEZ. These domestic, or coastwise, voyages have the potential to move organisms to other regions of the U.S. where they do not naturally occur.

Coast Guard Boarding Officers, Port State Security Officers and Marine Inspectors conduct BWM Examinations in conjunction with other regularly scheduled major marine examinations and commercial vessel inspections to verify compliance with the mandatory BWM practices. Since October 2004 over 10,000 BWM Examinations have been conducted by the Coast Guard, and the rate of examinations has continually increased. Over 6,300 BWM exams were conducted in 2005, representing an 82% increase from 2004, and a 145% increase since 2003.

The U.S. Government has determined that a discharge standard for ballast water is the most expedient approach to approving appropriate technologies for use on board vessels in lieu of conducting ballast water exchange and it supports the stringent standard set forth in S. 363.

In conjunction with the discharge standard, the Coast Guard is also developing draft test procedures for approving BWM systems in partnership with EPA; validating and refining the procedures with assistance from the Naval Research Laboratory; and assisting NOAA to facilitate the testing and demonstration of practicable and effective shipboard ballast water management methods. In January 2004, the Coast Guard initiated the Shipboard Technology Evaluation Program (STEP) as an incentive to ship-owners and operators to install and operate alternative BWM systems aboard vessels.

In February 2004, the International Maritime Organization adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, a significant step forward in the global effort to combat aquatic invasive species. The Coast Guard-led U.S. delegation played a major role in developing the Convention's basic structure and ensuring that a number of key objectives were included in the treaty. The Convention calls for ships to meet a concentration-based ballast water discharge standard according to a schedule of fixed dates, beginning with certain ships constructed in 2009. While the United States supports the structure and format of the ballast water management discharge standard in the IMO treaty, the U.S. negotiating position was for a much more stringent standard than is now in the treaty. These requirements signal the need for investment, purchase plans, and equipment inventory to both the shipping and ballast water treatment industries. The convention would also require the phasing out of ballast water exchange, provide for the shipboard testing of prototype ballast water treatment systems in a manner consistent with STEP, and allow the sampling of ballast water from ships by Port State control authorities to evaluate compliance. Although the ballast water discharge standards contained in the treaty are not as stringent as the U.S. had sought during negotiations, at U.S. insistence, the treaty preserves the ability of Parties to set more protective standards to better safeguard their waters against invasions. Because the structure and basic approach of the Convention in many respects reflect successful accomplishment of the United States' negotiating goals, we generally believe its basic framework and approach could serve as a useful pattern when considering further development of domestic legislation.

For the Great Lakes specifically, there is justified concern regarding vessels that enter the lakes fully loaded with cargo, declaring No Ballast on Board (thus referred to as NOBOB vessels). The Great Lakes ballast water regulations remain the most stringent in the world for restricting the discharge of unmanaged ballast water. Unpumpable residual freshwater and sediments in the ballast tanks of some NOBOB vessels pose a risk of introductions of freshwater invasive species into the Great Lakes as these vessels take on and discharge ballast during cargo operations. In August 2005, after considering short-term and long-term strategies, the Coast Guard announced a new policy that encourages vessels that may enter the Great Lakes as NOBOBs to conduct specific best management practices whenever possible. The Coast Guard and Transport Canada are cooperatively examining the degree to which the industry is able to conduct these practices and their efficacy in reducing the risks of introducing aquatic invasive species (AIS). Initial indications are that a large proportion of NOBOB vessels are conducting the practices, such that most are arriving with tanks containing either too little water to sample or with high salinity residual water. Until approved alternative BWM methods are available, consistent application of these practices should result in a significant reduction in the risk of introducing ANS.

Comments on the Ballast Water Management Act

At this time, the Administration has not formed official views on the discussion draft. The Departments of Commerce, Defense, Homeland Security, Justice, State, and Transportation, the Environmental Protection Agency, and others are currently reviewing the document. The comments that follow represent the Administration's preliminary, informal views on the discussion draft. The Administration appreciates the Subcommittee's efforts to address the ballast water issue and stands ready to work with the Subcommittee to ensure the bill's progress. The Administration will provide detailed official views in the near future.

While preferring full reauthorization of the Nonindigenous Aquatic Nuisance Prevention and Control Act, the Administration is willing to work with drafters to focus on ballast water, given that it is an immediate, pervasive, and well-known vector for introduction of invasive aquatic species. However, there are major concerns with the discussion draft. The International Maritime Organization (IMO) has agreed to the text for an International Convention for the Control and Management of Ships' Ballast Water and Sediment (Convention), and because of the international nature of shipping, the Administration believes that the approach taken in domestic legislation must be compatible with the structure and framework of the international provisions. S. 363 closely tracks the approach in the Convention, and the Administration is willing to support the approach taken in S. 363 if modifications are made. We strongly recommend the Subcommittee consider this approach as well.

At this time, the Administration would like to highlight some, but not all, concerns with the discussion draft:

- A number of provisions in the discussion draft are problematic and could actually delay reaching the goal of effective ballast water management. Proposed section 1102(h) requires surveys on the number of organisms in untreated ballast water and in exchanged ballast water. Several surveys have already been conducted in both of these areas, and results are available in published literature. Under the Convention, discharge standards are applicable to some vessels on which construction is initiated after January 1, 2009. With a 36-month deadline for review of alternative ballast water management methods before domestic standards would be proposed, proposed section 1105 makes it unlikely that the shipbuilding industry will have adequate lead time to meet that date.

- Even though the U.S. Government proposed a more stringent discharge standard at the diplomatic conference that drafted the Convention, the standard specified in the discussion draft is weaker

than the IMO standard. The discussion draft only explicitly requires regulation setting the upper standard of 10 viable organisms greater than or equal to 50 micrometers per cubic meter of water ((Sec. 6 of the draft bill setting forth a new Sec. 1104(a)(4)), while the Convention has a standard that includes organisms between 10 and 50 micrometers and standards for pathogens (Regulation D-2). Organisms in the smaller size category include dinoflagellates that cause harmful algal blooms. In both Australia and France, harmful algal blooms have been caused by organisms introduced in ballast water. The Department of Commerce previously testified that it had concerns with even the IMO standard, since it allowed so many organisms that technically constitute a "harmful algal bloom" by the definition used to shut down shellfish beds. In general terms, the Administration prefers to see a standard that would encourage development of new technologies rather than being based on currently available technology – i.e., fewer organisms per cubic meter of water.

- Also of concern is the exemption from regulations provided to participants of STEP (Sec. 6 of the draft bill setting forth a new Sec. 1104(a)(4)). In particular, the Administration is concerned with the scope and timing of how exemptions for STEP systems would operate. S. 363 includes a more targeted exemption for STEP participants with a defined time limit, which the Administration supports.

- The Administration is concerned that the discussion draft would change the nature of our Ballast Water Management Demonstration program. Most of the projects funded to date have involved controlled experiments at laboratory or pilot scale so that basic research could be conducted leading to development of alternative technologies that would be effective and practicable when used on board ships. One of the objectives of the demonstration program has been to facilitate the availability of shipboard systems eligible for inclusion in the U.S. Coast Guard Shipboard Technology Evaluation Program (STEP). Although NOAA already has indicated that it would give priority to projects approved for the STEP program, the discussion draft would restrict projects only to the STEP program when one of the priorities should be development and testing of new technologies at the research and development stages prior that which could be used in the STEP program. The current program has the flexibility to focus resources on shipboard tests, either within or separate from STEP, as circumstances warrant. The Administration also is concerned that the interagency cooperative nature of the current program would be changed. NANPCA currently provides that the Ballast Water Management Demonstration program is to be a joint effort of both the Department of Commerce and the Department of the Interior. The U.S. Fish and Wildlife Service (FWS) has made a significant contribution to the program. In addition, even though there is no statutory mandate to do so, the Maritime Administration (MARAD) of the Department of Transportation has become a key partner in this program. NOAA, FWS, and MARAD currently put out a joint request for proposals and conduct a joint peer review of the proposals received. NOAA believes that the program is a good example of how different agencies can work together to reach a common goal.

- The discussion draft would exempt vessels engaged in coastwise trade (within the EEZ) from the requirement to meet the discharge standard. This would greatly compromise the protectiveness of the resulting regulatory regime, as coastwise vessels would then facilitate the dispersal of harmful aquatic organisms introduced by other pathways.

- Additional technical concerns have been raised and will be discussed when the Administration provides its comprehensive views.

Thank you for the opportunity to provide comments on both air pollution reduction from ships and ballast water management. The Coast Guard looks forward to working with Congress as we continue our ongoing efforts to safeguard the maritime environment. I will be happy to answer any questions you may have.