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Homeland Security

United States  
Coast Guard



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**DEPARTMENT OF HOMELAND SECURITY**

**U. S. COAST GUARD**

**STATEMENT OF**

**ADMIRAL THAD ALLEN  
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**ON**

**PROTECTING OUR SHORES FROM OIL SPILLS – OPERATIONAL  
PROCEDURES AND SHIP DESIGN**

**BEFORE THE**

**COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION**

**SUBCOMMITTEE ON SUBCOMMITTEE ON SURFACE  
TRANSPORTATION & MERCHANT MARINE INFRASTRUCTURE,  
SAFETY, & SECURITY**

**U.S. SENATE**

**MARCH 4, 2008**

Good afternoon Mr. Chairman and distinguished members of the Committee. It is a pleasure to appear before you today to discuss issues related to commercial vessel manning, design standards, and Vessel Traffic Services (VTS). The Coast Guard is committed to protection of the environment and safety of the maritime public through ensuring vessels are properly manned, designed and operated on U.S. waterways.

## **Vessel Manning**

### International Standards

The International Convention for the Safety of Life at Sea (SOLAS) Chapter V, Regulation 14 requires that vessels be sufficiently and effectively manned, and requires Administrations (i.e., flag states) to issue minimum safe manning documents to vessels they register. The Safe Manning Certificate establishes and documents manning requirements for vessels. Administrations must also ensure that mariners serving on their ships meet competency requirements established in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW) Code. The International Regulations for Prevention of Collisions at Sea (COLREGS or Rules of the Road) requires that ships maintain an effective lookout while operating in restricted waters or conditions of reduced visibility. Although not specific, additional international guidelines have been created which establish principles in keeping a navigational watch, lookout requirements, watch arrangements, procedures for taking over a watch, performing a watch and watch keeping under varying conditions in different areas which are all intended to promote safe navigation.

Safe manning is a function of the number of qualified and experienced seafarers necessary for the safety of the vessel, and its crew passengers, and cargo. The Principles of Safe Manning adopted by United Nations' International Maritime Organization (IMO) resolution A.890 (21) as Amended by resolution A.955(23) notes the ability of seafarers to meet the requirements also depends upon conditions relating to training, hours of work and rest, health, and occupational safety. This Resolution provides recommendations to aid in determining the minimum manning for safe navigation, including situations involving transiting in restricted waters/ports.

### Coast Guard Enforcement

Vessel manning is as important to overall vessel safety as vessel condition and safety management. The Safety Management Regulations (33 CFR Part 96) provide general requirements for vessel safety management systems. Companies must include instructions for the safe operation of vessels into their safety management system including proper manning and operational procedures for transits in restricted waters and in conditions of restricted visibility.

The safety management system aboard a vessels are validated during both inspection and record audits conducted by the cognizant Administration, ultimately resulting in the issuance of the international Safety Management Certificate. Upon receiving an Advanced Notice of Arrival for a vessel, the Coast Guard reviews vessel records to ensure the Safety Management Certificate and other required documents are valid. A vessel without a valid Safety Management Certificate is detained prior to entry into port and the vessel's Administration is then required to ascertain the vessel safety management system and issue a valid certificate in compliance with SOLAS requirements.

While in port, the Coast Guard verifies STCW compliance during Port State Control (PSC) examinations on foreign vessels including checks of the following: minimum safe manning, crew certificates and endorsements, watch arrangements and schedules, new crewmember familiarization procedures, and the overall safety management system.

The Coast Guard assesses whether a vessel is in apparent compliance with the requirements of the Conventions to ensure that the crew can respond to emergency situations and perform the vital functions necessary for safe operation and prevention or mitigation of pollution. The STCW Code contains the specifications for the minimum international standard of competence for seafarers. The United States has adopted STCW requirements and 46 Subchapter B, Parts 10-16 contain equivalent requirements for U.S. mariners. .

Coast Guard Port State Control Officers (PSCOs) gauge crew competency by observing fire and abandon ship drills and other shipboard operations. If the PSCO observes inadequate skills during drills or other operations, indicating a lack of crew competency in essential shipboard operations, a detention of the vessel is warranted until the safety deficiency can be resolved.

Crew competency and the number of crewmembers are major aspects of vessel manning. Adequate manning allows for appropriate crew rest periods and STCW provides specific rest period requirements; however, vessels may deviate from the required rest periods for emergencies, drills or other overriding operational conditions (for example restricted visibility) which may require more people on watch. At times mariners will not have ample rest prior to their arrival and/or departure from the U.S. due to enhanced navigational watches inbound/outbound port, and quick turn-around for unloading and offloading cargo. If a PSCO observes potential fatigue issues with crew, corrective actions will be taken before allowing the vessel to get underway.

### **Vessel Design Standards**

Vessel oil pollution prevention standards have evolved over the years. The primary focus has been on tank vessels, which have historically posed the greatest risk for oil pollution. As a result, tank vessel hull design standards have progressed from dedicated clean ballast tanks, to segregated ballast tanks, to complete double hull protection of the cargo tank block following the Exxon Valdez casualty in 1989. U.S. leadership at IMO has been instrumental over the years in upgrading international oil pollution prevention standards, and there is generally close alignment between U.S. and IMO tank vessel design standards.

Until recently, protective measures for the location of fuel tanks were generally considered unwarranted by both the United States and IMO. The Oil Spill Pollution Act of 1990's Double Hull Interim Final Rule preamble indicated that fuel oil represented only a relatively small risk to the environment compared with cargo oil and therefore double hulling of fuel tanks was unnecessary. This perception began to change through the 1990's as a number of prominent fuel spills in U.S. waters (Enif - 1995; Kure - 1997; and New Carissa - 1999) raised awareness of the risk of oil spills from fuel tanks. Then with European environmental concerns very high after the Erika casualty off France in 1999, the IMO decided to establish strong new requirements for the protection of fuel tanks which culminated in the 2006 adoption of MARPOL Annex I regulation 12A - Oil Fuel Tank Protection.

## New Fuel Tank Protection Requirements for Oceangoing Freight Ships

Nontank vessels are vulnerable to spills caused by groundings, collisions, and allisions due to the location and capacity of onboard fuel tanks. Fuel is generally carried in tanks located in the bottom or side of the vessels without double hull protection.

Current U.S. requirements regarding the location of fuel tanks are located in 33 CFR Subchapter O (Pollution) and essentially prohibit oil from being carried in a forepeak tank or any tank forward of the collision bulkhead. There is no restriction on locating fuel tanks adjacent to the outer hull plating.

However, oceangoing freight vessels on international voyages are subject to the International Convention for the Prevention of Pollution from Ships otherwise referred to as MARPOL 73/78. New MARPOL Annex I regulation 12A - Oil Fuel Tank Protection has entered into force and applies to all ships with an aggregate oil fuel capacity of 600 cubic meters (this equates to approximately 158,500 gallons) and above with a building contract after July 31, 2007, or which are delivered after July 31, 2010. The regulation provides two options for the protection of fuel tanks with volumes greater than 30 cubic meters (approximately 7,925 gals):

- (1) a prescriptive double hull requirement; or
- (2) a probabilistic accidental oil outflow performance requirement.

Vessels meeting the first option must have fuel tanks with double bottoms and double sides, which provide separation from the outer skin of the vessel ranging from 0.76 to 2.0 meters.

Vessels falling under the second option must meet an accidental oil fuel outflow performance requirement, which provides the equivalent of double-hull protection while allowing for some fuel tank arrangement flexibility. The performance requirement considers historical casualty statistics to determine optimal fuel tank arrangements in order to minimize the risk of oil fuel outflow from hull damage.

The Coast Guard published a Notice of Policy in the August 27, 2007 Federal Register regarding our compliance policy, pending a rulemaking project to harmonize existing U.S. regulations with the new MARPOL regulation. The policy states that vessels (U.S. or foreign) required by MARPOL to hold an International Oil Pollution Prevention (IOPP) certificate must meet regulation 12A. U.S. vessels not required to hold an IOPP Certificate need not comply with regulation 12A. A vessel is required to hold an IOPP certificate if it is over 400 gross tons (over 150 gross tons for oil tankers) and engages on international voyages to other MARPOL signatory countries.

### **Rulemaking**

The Coast Guard is undertaking substantial steps to improve our rulemaking capability. These improvements will allow the Coast Guard move forward expeditiously with rulemaking projects that will enhance our core missions of marine safety, security, and stewardship.

- **Marine Safety and Security Council:** The Marine Safety and Security Council (MSSC) is the Coast Guard's senior rulemaking oversight body. We have revamped the MSSC membership to better reflect our current organizational structure and to provide more responsive, cross-cutting oversight. The MSSC will meet at least quarterly to oversee the

rulemaking development system and progress of the top priority projects. This will ensure early visibility on significant rulemaking issues, and best utilization of Coast Guard resources to serve the public as efficiently and effectively as possible.

- **Rulemaking Review and Reform Project (RRRP):** A Rulemaking Review and Reform Project is underway to conduct a top to bottom review of our rulemaking processes and to facilitate increases in capacity. The RRRP is assisted by a group of Organizational Performance Consultants who will assist in identifying, defining and improving our rulemaking processes. The RRRP is assessing the current state of rulemaking to determine root causes of rulemaking delays and identify specific opportunities for improvement.

### **Other Environmental Initiatives**

The Coast Guard is working domestically and in conjunction with the IMO to improve environmental standards and compliance. Several concurrent initiatives are underway and progress is being made on several fronts:

- **Reduction of air emissions from ships (MARPOL Annex VI)**  
The Coast Guard, Environmental Protection Agency (EPA), and maritime representatives from several countries have been actively engaged with the IMO to establish new and more stringent international standards addressing air emissions from ships. Air pollution from ships already significantly contributes to the air quality problems in the U.S. and emissions are expected to quadruple by 2030. The United States Government has played a leading role in shaping the current standards, but our influence could be compromised if we fail to pass legislation and submit our instrument of ratification to MARPOL Annex VI before final IMO negotiations conclude at the end of March 2008. Your Committee presently has the implementing legislation for consideration, in the form of H.R. 802, which passed the House last year under suspension of the rules. I personally request that you give urgent consideration to H.R. 802, which the Administration fully supports, in order to allow the United States to succeed in our efforts to enhance the air emissions standards for ships both domestically and throughout the world.
- **Nontank Vessel Response Plans (NTVRP)**  
The Coast Guard and Maritime Transportation Act of 2004 required the preparation and submission of oil spill response plans for nontank vessels. The Coast Guard is working to publish regulations on the development and submission of Nontank Vessel Response Plans (NTVRP) plans. In the interim, the Coast Guard published Navigation and Inspection Circular (NVIC) 01-05, which assists nontank vessel owners and operators with the development of interim NTVRPs. To date, the Coast Guard has reviewed interim NTVRPs covering over 14,700 foreign and domestic nontank vessels. However, vessels are not required to follow the guidance contained in NVIC 01-05. The Coast Guard is currently revising to the interim enforcement strategy which would clarify the requirements for all covered vessels to have prepared and submitted a NTVRP prior to operating in U.S. waters. This enforcement will be limited to those portions of the authorizing statute that are self-executing.

- **Ballast Water Discharge Management Regulation**

The Coast Guard is engaged in a rulemaking that would set a performance standard for the quality of ballast water discharged in U.S. waters. We believe such a standard is the most effective way to approve Ballast Water Management Systems (BWMS) that are environmentally protective and scientifically sound. This rulemaking would also establish rigorous testing requirements BWMS would undergo to ensure they work under shipboard conditions. The Coast Guard is committed to approving BWMS that will prevent aquatic nuisance species introductions into U.S. waters.

## **Vessel Traffic Services Cuts**

### Ports and Waterways Safety Act (PWSA)

As authorized by the Ports and Waterways Safety Act (PWSA), the Coast Guard established VTS in certain ports and waterway areas to maximize the safe and efficient use of waterways by preventing marine accidents and their associated environmental damage. In order to carry out these duties, VTSs use a variety of communications, surveillance equipment, and operating systems to collect, process, and disseminate navigation safety information and exercise regulatory authority when necessary. VTSs also use their capabilities to support other Coast Guard mission areas such as maritime security, aids to navigation, search and rescue (SAR), and law enforcement.

### VTS Operations

VTSs operate as an active part of a comprehensive waterways management system, which includes passive measures such as the COLREGS or Rules of the Road, aids to navigation such as buoys and lights, other regulations, and vessel routing schemes. In areas determined to present a high level of navigational risk, VTSs act in conjunction with these passive measures and the skill of professional mariners to ensure safe navigation. VTS procedures are developed in conjunction with maritime community stakeholders and in alignment with international guidance from the IMO and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). This includes a formal training program for VTS watchstanders consisting of national certification, local qualification, and continuing professional development.

The PWSA grants the Coast Guard extensive authority to establish VTS and control or supervise vessel traffic. The Coast Guard may require vessels to participate in VTS and carry certain navigation safety equipment. The PWSA authorizes the Coast Guard to control vessel traffic in hazardous circumstances and to direct vessel operations if they violate regulations or it is necessary in the interest of safety. We have issued regulations implementing these authorities and delegating authority to individual VTSs.

VTS procedures have been developed to carry out these authorities in alignment with international guidelines and recommendations. In general, a VTS will monitor their area of responsibility to build a traffic image and, having analyzed the data collected, inform mariners of pertinent information to assist them in navigational decision making. In certain circumstances the VTS will recommend a course of action, and in the event of a violation of regulations or in the interest of safety, a VTS may direct a vessel to take certain action. Per current doctrine, procedures, and training, orders to vessels are issued in an “outcome-based” manner; in which the vessel is ordered to do something (e.g., do not proceed past a point) but not told specifically how to do it (e.g., specific speed or course to steer). However, the Coast Guard has the authority

to issue more specific orders to vessels, and in very rare circumstances has exercised it. Under international guidelines, VTSs generally act as a navigational aid to the mariner, but the ultimate responsibility for safe navigation of the ship remains with the master of the vessel. VTSs assist in vessel navigation decision-making, not ship handling, particularly when a vessel is facing an 'in extremis' situation. When direction is provided, the VTS refrains from issuing ship handling instructions because it would create an extremely hazardous situation to direct emergency vessel maneuvers from a remote location.

We are committed to the marine safety mission and the safety and security of the maritime public.

During my State of the Coast Guard address, I emphasized the Coast Guard's longstanding commitment to honoring and serving professional mariners. Moreover, my plan to enhance the Coast Guard's marine safety program is a hallmark of this commitment. We have already requested significant increases to our marine inspector workforce; planned Centers of Excellence that will match our skills with those of the maritime industry in certain regions; and made other program enhancements intended to improve customer service.

On February 8<sup>th</sup>, I met with representatives of the maritime industry at Coast Guard Headquarters for the first of many Marine Industry Forums. I am initiating these forums to facilitate discussion and dialogue on a broad range of marine safety matters. I recently traveled to maritime industry events in Houston and Cleveland, and will continue to hold these meetings as we move forward so that the Coast Guard's planned enhancements are both effective and responsive to the needs of industry and professional mariners.

Thank you for the opportunity to testify. I look forward to your questions.