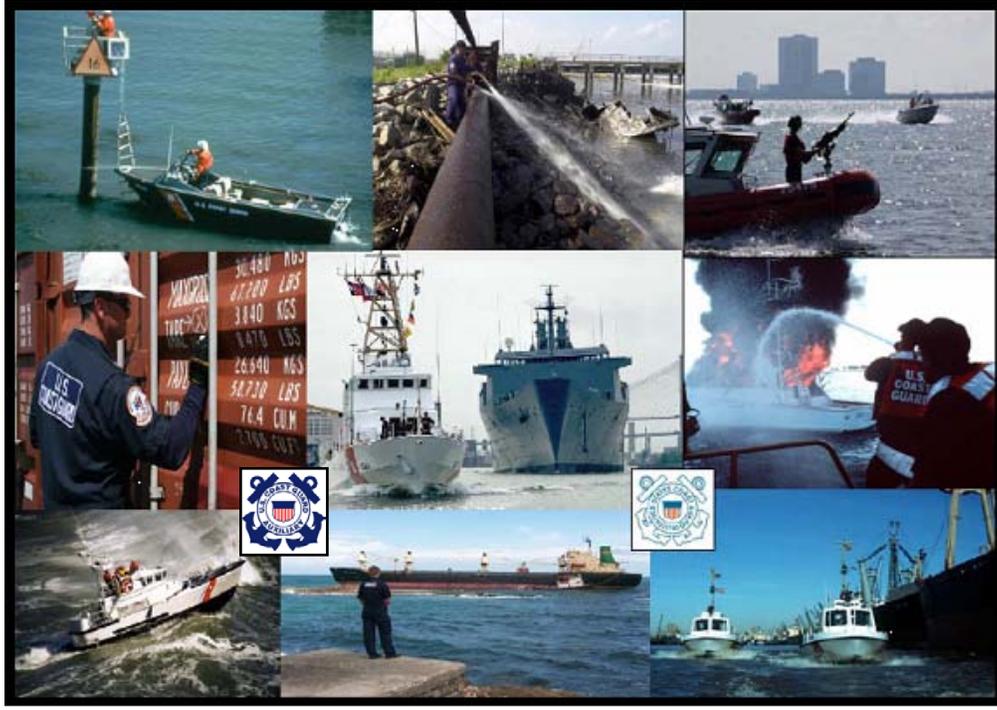


Introduction to Marine Safety and Environmental Protection



**United States Coast Guard
Assistant Commandant for Marine Safety,
Security, and Stewardship (CG-5)**

**Office of Auxiliary & Boating Safety (CG-542)
Coast Guard Auxiliary Division (CG-5421)**

**Coast Guard Auxiliary Prevention
Department**

Introduction to Marine Safety and Environmental Protection (Prevention)

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Appendix

Web Links to:

The Coast Guard

U.S. S. Indianapolis

The Sultana

End of Chapter Questions

Introduction to Marine Safety and Environmental Protection

1.0 Introduction and Learning Objectives

1.1 Introduction

This course is designed to introduce members of Team Coast Guard – Active Duty, Reserve, Auxiliary and Civil Service – to the marine safety organization, history, missions, functions and programs of the [United States Coast Guard](#). The course is intended primarily for non-resident training purposes. Taking advantage of its web based information each course component may be detached and updated independently. This insures that the course can be continuously updated as programs and organizations change and evolve over time.

Trainees and members will be required to have access to the internet to retrieve the numerous web documents referenced. The Introduction to Marine Safety and Environmental Protection end of course exam has questions from this document and many of these web resources.

[US Coast Guard Marine Safety and Environmental Protection](#),

Coast Guard web pages on the Marine Safety Program.

[The US Coast Guard Historian](#),

[The Auxiliary Prevention Department](#),

[The Code of Federal Regulations \(CFR\)](#)

[The United States Code \(USC\)](#)

[Marine Safety Manuals \(MSM\)](#)

1.2 Learning Objectives

Completion of this course will accomplish the following objectives.

- Acquaint the trainee with the history and organization of the Marine Safety and Environmental Protection functions of the Coast Guard.
- Provide the trainee an overview of the organization and content of Coast Guard Marine Safety and Environmental Protection programs.
- Provide the trainee a basic working knowledge of the Marine Safety Manual and the Code of Federal Regulations.
- Provide a basic educational component for members working toward qualifications in Marine Safety and Environmental Protection and a first step in meeting the qualifications for the [Trident and the Marine Safety Device](#).
- Satisfy member basic education requirements in Marine Safety and Environmental Protection and provide for member recognition and continuing education credit.

1.3 End of Chapter Review Questions and End of Course Exam

It is recommended that each student read and answer the end of chapter review questions in order to be familiar with the substance as well as the format of questions that will appear on the end of course exam. There are questions taken directly from this document and questions that will require access to web pages referenced in the text. Answers to the end of chapter review questions will be found in the Appendix.

2.0 Marine Safety

2.1 Coast Guard Missions and Structure

2.1.1 Coast Guard Missions

The U.S. Coast Guard is the principal federal agency charged with Maritime Safety, Maritime Security and Maritime Mobility. Additional Coast Guard missions include National Defense and Protection of our Natural Resources.

There are numerous Missions as shown below, assigned to the Coast Guard. This course will concentrate on two, Maritime Safety and Protection of Natural Resources.

Many of these mission-programs benefit more than one role, but each directly supports the roles of **safety, security and stewardship**.

<u>Mission</u>	<u>Program</u>
<p data-bbox="365 1045 610 1079"><u>Maritime Safety</u></p> <p data-bbox="337 1125 638 1184">Saving Lives and Protecting Property</p>	<p data-bbox="915 999 1094 1029">Marine Safety</p> <p data-bbox="886 1066 1122 1096">Search and Rescue</p> <p data-bbox="883 1134 1219 1163">Recreational Boater Safety</p> <p data-bbox="857 1201 1154 1230">Passenger Vessel Safety</p> <p data-bbox="857 1268 1154 1297">International Ice Patrol</p> <p data-bbox="922 1335 1089 1365">Port Security</p>
<p data-bbox="352 1453 626 1486"><u>Maritime Security</u></p> <p data-bbox="305 1533 673 1663">Establishing and Maintaining a Secure Maritime System while Facilitating its use for the National Good</p>	<p data-bbox="850 1444 1159 1474">Illegal Drug Interdiction</p> <p data-bbox="837 1512 1172 1541">Alien Migrant Interdiction</p> <p data-bbox="805 1579 1205 1608">EEZ & Living Marine Resource</p> <p data-bbox="860 1646 1149 1675">General Maritime Law</p> <p data-bbox="847 1713 1162 1743">Law/Treaty Enforcement</p>

<p><u>Maritime Mobility</u></p>	<p>Aids to Navigation</p> <p>Icebreaking Services</p> <p>Vessel Traffic Services</p> <p>Bridge Administration</p> <p>Rules of the Road</p>
<p><u>National Defense</u></p>	<p>General Defense Duties</p> <p>Maritime Intercept Operations</p> <p>Deployed Port Operations and Security</p> <p>Peacetime Engagement</p> <p>Environmental Defense Operations</p>
<p><u>Protection of Natural Resources</u></p> <p>Managing the Sustainable & Effective use of its Inland, Coastal and Ocean Waters & Resources for the Future</p>	<p>Marine and Environmental Science</p> <p>Living Marine Resources Protection</p> <p>Foreign Vessel Inspections</p> <p>Marine Pollution Education, Prevention, Response, and Enforcement</p> <p>Marine Environmental Protection</p>

2.1.2 Coast Guard Structure

A. Sectors

By the authority of the Commandant in 2006, the [Coast Guard reorganized](#) (see Organizational History) all field units including Marine Safety Offices, Groups, Vessel Traffic Services (VTSs), and in some cases Air Stations, having largely or entirely the same Areas of Responsibility (AORs) into [Sector Commands](#). Sector Commanders are vested with all the rights, responsibilities, duties, and authority of a Group Commander and a Commanding Officer, Marine Safety Office (MSO) as provided for in United States Coast Guard Regulations 1992, COMDTINST M5000.3 (series).

B. Sector Commanders carry out the Sector's missions as follows:

1. Captain of the Port (COTP) COMDTINST M5401.6 1-2
2. Federal Maritime Security Coordinator (FMSC) when serving as COTP for an Area Maritime Security (AMS) Area pursuant to 33 CFR §103.200
3. Federal On-Scene Coordinator (FOSC) consistent with the National Contingency Plan
4. Officer in Charge, Marine Inspection (OCMI)
5. Search and Rescue (SAR) Mission Coordinator (SMC)

C. Unified Command

The tragic events of September 11, 2001, substantially altered recognition of security risks to marine transportation similar to changes in environmental risk that were recognized as the result of major pollution incidents. This reinforced the importance of collaborative preparedness for incident management and need for a unified command construct that:

1. Improves mission planning execution and performance outcomes.
2. Increases interaction and coordination between operational commands and interagency partners.
3. Manages and helps develop the Common Operational Picture (COP)
4. Brings new focus to the value of planning and sustainment of operational readiness.
5. Shares information and intelligence more rapidly than before.

Sectors are structured along process lines to manage the full range of operational prevention and response activities. The decision to develop Sectors was an extension of previous actions to consolidate field units over the years and was a logical next step to formalize the successes and best practices that have been

operating in the field. Sectors adopted the successful model that was ground tested in New York City and Baltimore on September 11th.

D. Sector Missions

The mission of each Coast Guard Sector is to accomplish assigned Coast Guard missions, functions, and responsibilities. Sector mission objectives include:

1. provision of unified command and control for the integrated conduct of operations,
2. coordinated leveraging of maritime partner relationships,
3. foresight in planning, and
4. aggressive risk-based employment of assets and capabilities within the assigned AOR.

E. Preparedness Continuum

The move to Sectors represents a transformation from a Coast Guard traditionally organized around its operational programs, to one that is organized around the preparedness continuum of prevention, protection, response and recovery with programmatic and functional areas of responsibility embedded as sub-elements. The organization construct relies on integrated coordination of all assigned operational capabilities to optimize utilization of Coast Guard resources in accomplishing assigned agency missions, functions and responsibilities. It recognizes that, in a broad sense, all Coast Guard operational activities are either focused on prevention of an incident or illegal event, or in response to mitigate the undesired effects of an incident. The command and control processes used to execute those two operational mission areas are interrelated as follows:

1. Prevention.

Focuses largely on gaining compliance with regulatory standards and the design and maintenance of waterway systems to prevent incidents. Prevention functions include:

- (a) Inspections/examinations of vessels and waterfront facilities to ensure compliance with federal safety, security, and environmental regulations.
- (b) Investigations of marine casualties to determine the cause of accidents, pursuing Maritime Personnel Actions/Civil Penalties, and to serve as a feedback loop into compliance inspections and regulatory development.
- (c) Develop and maintain the waterway navigation infrastructure (i.e. Aids to Navigation (ATON)).
- (d) Manage traffic through Vessel Traffic System (VTS) centers and the use of Captain of the Port Order, Limited Access Areas,

and Regulated Navigation Areas.

2. Response.

Focuses on command and control activities associated with an emergency incident response and/or heightened threat situation that requires swift enforcement actions. Response requires proficiency in high tempo command, control and communications processes; and the exercise of response and security enforcement expertise to accomplish incident command and crisis management. Response functions include:

- (a) Search and Rescue (SAR)
- (b) Marine Environmental Protection; responding to oil spills to monitor and supervise clean up operations
- (c) Incident management
- (d) Law enforcement

3. Logistics.

Provides the capabilities to support Sector operational missions and prevention activities through the coordinated balance between asset maintenance, personnel management, medical readiness, food preparations, and financial aspects of planned and unscheduled operations. Logistics functions include:

- (a) Administration & Personnel management of Sector Staff and subordinate commands.
- (b) Responsibility for Naval and Facilities Engineering (public works) programs for Sector and subordinate commands.
- (c) Financial management of Sector budget and disbursement to subordinate commands.
- (d) Responsibility for Medical clinic if assigned.
- (e) Responsibility for unit Sector and AOR tenant Internal environmental compliance requirements.

F. Sector Command Center.

The Sector Command Center (SCC) serves an operations integration function. Each SCC is located organizationally to support Response and Prevention operations. For example, the SCC supports the Response Department during a search and rescue response and likewise, supports the Prevention Department during a marine event.

G. Sector Field Offices (SFOs).

The creation of Sectors transformed a diverse array of field offices/units into a

standard Sector Command organizational architecture, consisting of Prevention, Response, and Logistics components as described above.

Command and control is centralized to serve all three components including field units. This resulted in the conversion of some outlying Groups (which were not directly absorbed in the creation of the Sector command cadre) to SFOs. All field level units/offices report directly to the Sector and its components. SFOs are extensions of the Sector staff, and do not constitute another layer of command. Their purpose is to provide support to outlying units in locations where distance and workload render it necessary to have remote offices serving various support roles in specific areas.

H. Marine Safety Units (MSUs).

As with SFOs, some outlying Marine Safety Offices (MSOs) during the conversion retained their functions and command status but were renamed MSUs. Marine Safety Units specialize in port security, marine inspections, environmental response, maritime investigations, and waterways management. Some MSUs still retain OCMI, COTP and FOOSC authority over a designated portion of the Sector's area of responsibility.

I. Marine Safety Detachments (MSDs).

Marine Safety Offices, which did not retain command as MSUs or were geographically distant from the newly created Sectors were converted to MSDs and specialize in many of the same missions as MSUs. Active Duty and Reserve personnel attached to a MSD are under the OPCON of the Prevention Department. Assigned personnel perform marine safety duties and remain under the ADCON of the parent Sector.

J. Sector Organization Charts.

1. Figures 1.G.1. through 1.G.3. indicate a Sector's location within the Coast Guard organization and a detailed departmental chart for all Coast Guard Sectors.
2. **Organizational Flexibility:** Like ports, no two Sectors are exactly alike. A host of discriminators directly impact how a Sector Commander leads and manages his or her command. Span of control, varying operational tempo, mission mix and complexity, geography, industry types, international concerns, federal, state and local government agencies, interagency and industry relationships, legacy asset/staffing levels, and inter and intra-service relationships all affect workload and staffing.

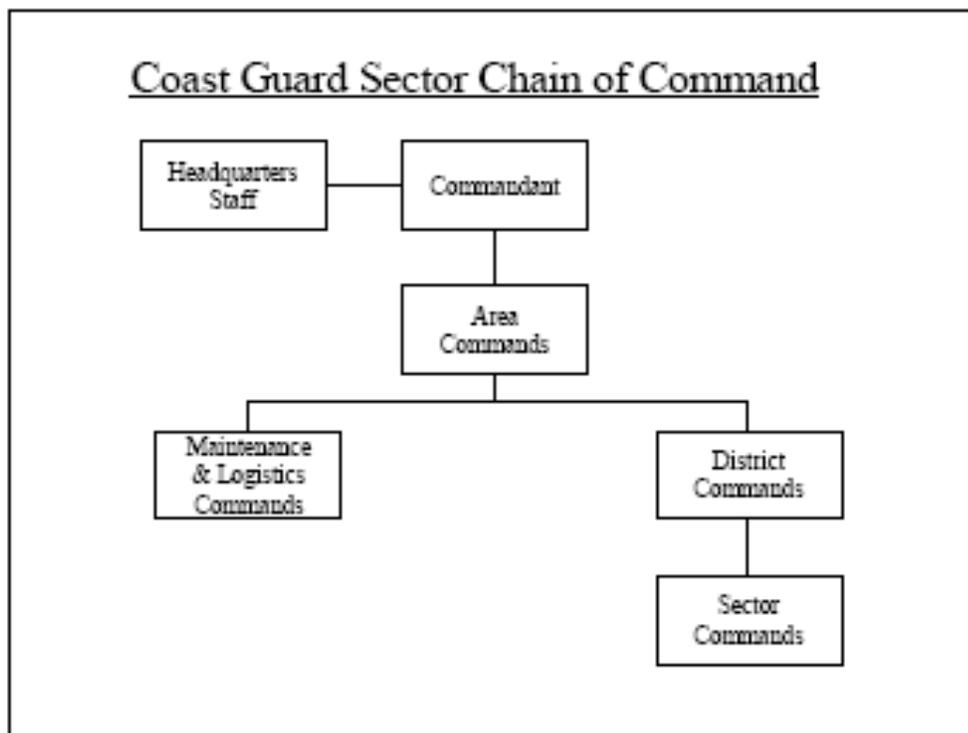


Figure 1.G.1. Coast Guard Sector Chain of Command

Standard Coast Guard Sector Organization

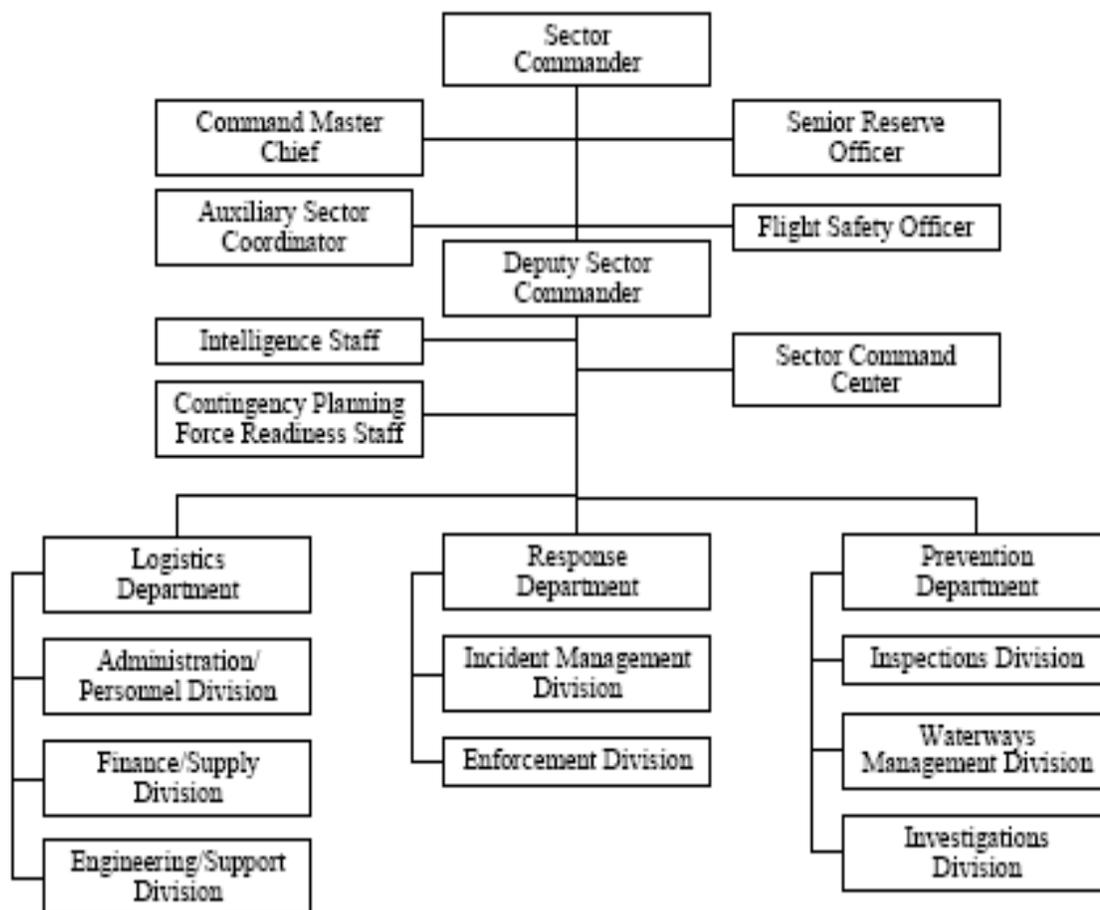


Figure 1.G.2. Standard Coast Guard Sector Organization

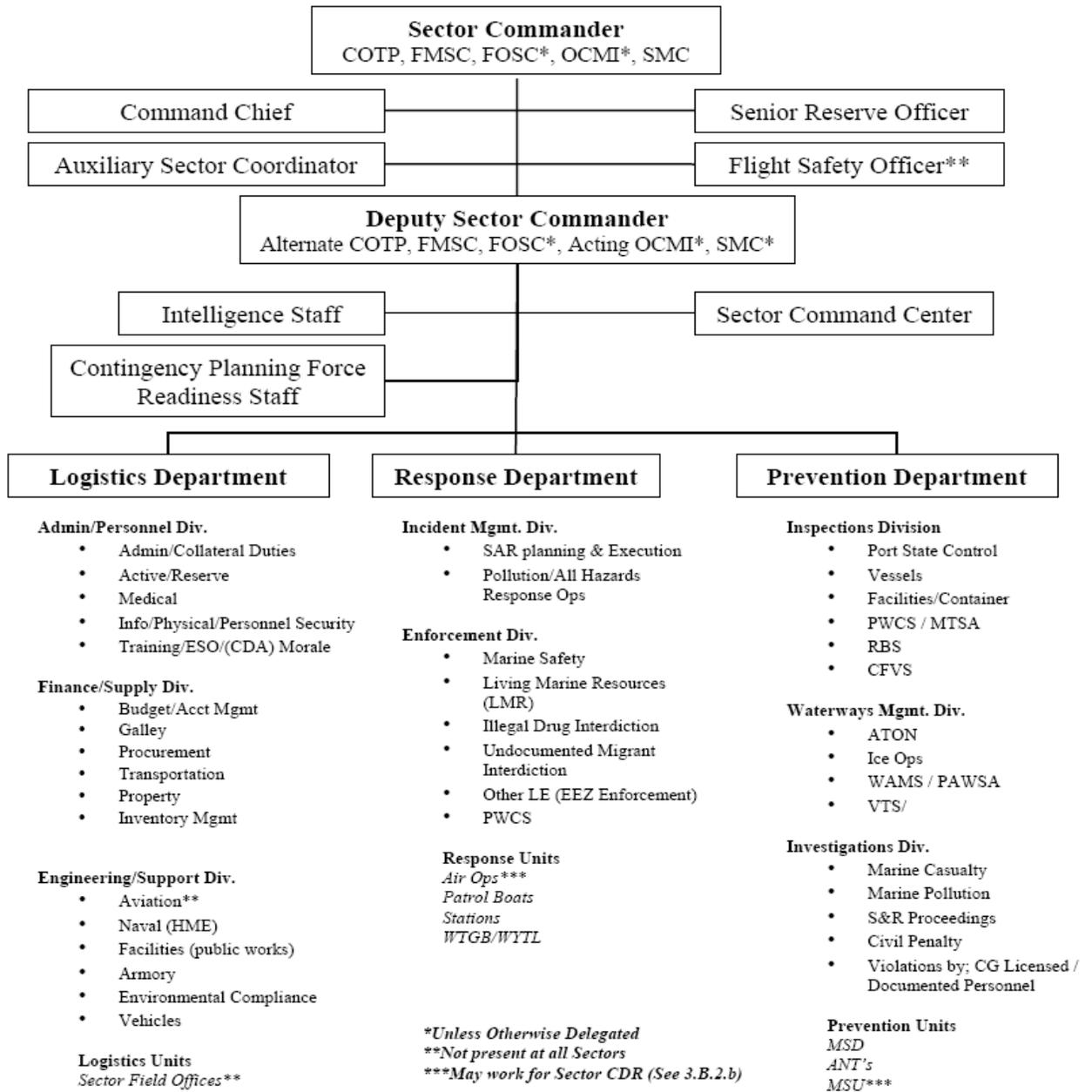


Figure 1.G.3. Detailed Coast Guard Sector Organization

2.2 The Importance of Marine Safety Regulations and Enforcement

The greatest loss of life in a marine accident involving U.S. citizens was not the sinking of the [RMS Titanic](#) after it hit an iceberg in 1912, it was not the sinking of the [RMS Luisitania](#) by a German U-Boat in 1915 before the U.S. entered the First World War, nor was it the sinking of the [U.S.S Indianapolis](#) by a Japanese submarine in 1945 after it delivered the atomic bomb named Little Boy, that was later dropped on Hiroshima.

The greatest loss of life in US maritime history occurred in 1865 and is often overlooked and seldom remembered by historians. The Steamboat Sultana operated on the Mississippi River during the Civil War. Minimal regulation, lax enforcement and greed provided the perfect combination to create a true catastrophe. While there are numerous reasons why the Sultana tragedy did not directly result in marine safety legislation and better oversight of the steamboat industry at the time, we can learn the importance of the today's safety regulations from the accounts of the disaster. See [The Sultana](#).

2.3 The Marine Safety Program

2.3.1 Origin of The Program.

In the early 1800's, Congress was reluctant to address "marine safety" issues with regard to the steamboat industry. Only after a long series of marine incidents (see [Sultana](#)), involving heavy losses of life and property, did Congress enact legislation and create the federal [Steamboat Inspection Service](#), (type in "Steamboat Inspection Service" in the search function on this link) to preserve and protect the public from preventable marine incidents. The protection aspect was handled by federal agencies involved with maritime law enforcement and aids to navigation. The preservation of life after a marine incident was carried out by federal search and rescue forces. The Coast Guard's current marine safety programs have retained the overall philosophical objectives of both the protection program (before an accident) and the preservation of life (after an accident).

As a result of the myriad statutes and regulations affecting the marine environment and the maritime industry over many years, several distinct programs concerned with marine safety and related issues evolved:

- [Marine Inspection \(MI\)](#),
- [Marine Licensing \(ML\)](#) (formerly the Commercial Vessel Safety (CVS) Program),
- [Port Safety and Security \(PSS\)](#) (formerly the Port and Environmental Safety (PES) Program),
- [Marine Environmental Response \(MER\)](#),
- [Waterways Management \(WWM\)](#), (CG 541)
- [Recreational Boating Safety \(RBS\)](#), (CG 5422) and

- [Bridge Administration \(BA\). \(CG 5411\)](#)

2.3.2 The Marine Safety Office (MSO)

In 1972, the Commandant decided to consolidate CVS (Commercial Vessel Safety Program), PES (Port and Environmental Safety Program), MER (Marine Environmental Response), WWM (Waterways Management Response), RBS (Recreational Boating Safety) investigative activities in the field, and BA (Bridge Administration), under the Marine Safety Office structure. The previous segregation of review and response activities resulted in well meant, but fragmented, "marine safety" policies that tended to focus on symptoms rather than causes of marine casualties and incidents. Under consolidation, attention was better focused on preventing marine casualties and incidents through appropriate legislation and regulations, coordinating field efforts to implement requirements, and education of the maritime public. The policy intent or goal is to prevent personal injury, environmental damage and property damage due to maritime accidents.

In 1982, the policy concerning the investigation of recreational boating fatalities was changed to reflect that only those accidents that were inadequately investigated by the states, as determined by the Commandant or the district commander would be investigated by marine inspection offices (MIO's) of Marine Safety Offices. States are considered the primary investigative authority for all boating accidents as provided by 33 [CFR](#) 17 4.103.

2.3.3 Evolving enforcement

While Congress provided the Coast Guard with certain specific powers and constraints to enforce marine related laws and regulations, different approaches to enforcement have evolved as a result of the variances between statutes. For example:

Marine Inspection and Marine Licensing Program objectives can be met by withholding a [Certificate of Inspection](#) (COI) from a vessel that does not comply with the safety standards prescribed by laws and regulations, or by withholding a [license or merchant mariner's document \(MMD\)](#) from any person who does not comply with the requirements of appropriate federal laws and regulations.

The [Port Safety and Security Program](#) (PSS), on the other hand, has no issuance of licenses or documents, or "before-the-fact" inspection and certification of potential pollution sources, except for certain vessels and liquid bulk facilities. Originally, the enforcement concept for PSS was one of "crime and punishment." Emphasis has shifted from punishment to prevention because, ultimately, the only true protection from pollution incidents comes from preventing them. The PSS Program focuses upon port facilities and merchant shipping. The intent is to

prevent personal injury, death, environmental damage, and property damage due to Maritime Accidents.

The Commandant determined that the public was best served by consolidated administration of marine safety activities and a positive approach to training and diversification of unit personnel. An "us" and "them" attitude or the notion that a Marine Safety Office has a "Captain of the Port (COTP) side" distinct in importance from a "Marine Inspection Office (MIO) side" was counterproductive and is discouraged by managers.

2.4 Marine Safety Manual (MSM)

The MSM consists of eleven volumes and is the primary policy and procedural statement for the marine safety programs of the Coast Guard. Published for the use of all Coast Guard marine safety and industry personnel, it prescribes the essential functions that must be performed to attain the overall objectives of the Marine Inspection, Marine Licensing, Port Safety and Security, Marine Environmental Response, and Waterways Management Programs and certain investigative functions of the Recreational Boating Safety Program. The MSM should be used as a guide for consistent and uniform administration of marine safety activities, without undue hampering of independent action and judgment by marine safety personnel. Numerous questions on the end of course exam are taken from the MSM. If there are conflicts between statutes and the MSM, legal requirements will be observed.

[The Marine Safety Manual \(CIM 16000 - 16000.14\)](#)

2.5 The Marine Inspection (MI) Program

2.5.1 Objectives.

Three main objectives underlie the Commandant's approach to vessel safety in the MI Program:

1. To minimize the probability of any casualty or accident occurring to a vessel and, hence, reduce the risk to personnel on the vessel and ashore, other vessels, and the marine environment;
2. To minimize the effects of a casualty or accident and the probability of the vessel being lost or rendered useless as a result of a casualty or accident; and
3. To maximize the probability of survival and rescue of personnel in the event abandonment of the vessel becomes necessary.

These objectives are pursued through the administration of federal statutes, the development and enforcement of federal regulations and standards, and the implementation of international agreements. These, together with efficient operation of the vessel's systems and equipment, constitute the criteria for a safe ship.

2.5.2 [Historical Development](#)

A. Initial State and Federal Activities. Also see [Policy Changes](#).

Several attempts by individual states to legislate inspections and penalties on steamboats and their owners during the early 1800s were thwarted by a state's lack of constitutional authority to regulate vessels in interstate commerce.

The Federal Government entered the Marine Inspection Program, (formally the Commercial Vessel Safety program), in 1838 when Congress, alarmed at the frequency and severity of steamboat boiler explosions, passed the first federal law, [The Act of 1838](#) "for the better security of life" on steamboats. This provided for inspectors, appointed by district judges, to examine each steamboat boiler every 6 months, and each hull every year, under the administration of the Secretary of the Treasury. Upon determining that a steamboat was in such condition that it could be navigated safely, the inspector issued a Certificate of Inspection (COI) attesting to the steamboat's seaworthiness. The law also required steamboats to carry certain firefighting and lifesaving equipment. No provision was made for licensing of operating personnel, but owners were required to employ "competent" pilots and engineers. The early inspections, required by the Act, were mostly ineffective, and overall the Act proved to be a failure with fatalities over the next decade closely comparable with the previous one.

Congress passed [The Act of 1852](#), to improve the administration of the program. The country was divided into nine districts, each under the jurisdiction of a "supervising inspector." Supervising inspectors directed the efforts of local inspectors and provided technical advice. These supervisory inspectors met annually to discuss problems of national importance and to strive for uniformity in administration of the program. The new law also provided for the licensing of pilots and engineers.

B. [Steamboat Inspection Service](#).

After a series of marine disasters following the Civil War, Congress repealed all previous marine statutes and enacted a new comprehensive code of navigation and vessel inspections. The new laws provided for a "Steamboat Inspection Service" to include local inspectors of hulls and boilers and the licensing of masters and mates, and a local and national administrative organization under the Treasury Department in Washington, D.C. The years that followed saw a gradual reduction in marine casualties.

C. Twentieth-Century Developments.

The Steamboat Inspection Service was transferred to the Department of Commerce and Labor in 1903 and renamed the [Bureau of Navigation and Steamboat Inspection](#). Following the burning of the [U.S. steamer Morro Castle](#) in 1934, the Bureau was reorganized. In 1936 it was renamed the Bureau of Marine Inspection and Navigation (BMIN), and in 1942 its duties were transferred to the Coast Guard. A new component of this agency was a "technical staff" employed to review and approve plans for new passenger vessels that were to be of fireproof construction. In addition, new statutory provisions in 1936 required all seamen on merchant ships of 100 gross tons (GT) or more to possess a Certificate of Identification or a Continuous Discharge Book (CDB) issued by the inspectors.

D. Extensions of Federal Laws.

The original inspection laws provided for the regulation of steamboats only for the purpose of passenger safety and, later, for crew safety. Gradually, Congress extended the provisions of the inspection laws to protect property and other groups of vessels.

E. Limited Regulation of Vessels.

In the above cases, each group of vessels was made subject to the entire regulatory scheme originally devised for steam vessels. In other cases, Congress provided for limited regulation of groups of vessels whether or not they were generally subject to the inspection laws. The following regulations were aimed at specific classes of vessels.

1. [The Motorboat Act of 1910](#) required that all motorboats carrying passengers for hire be under the control of a federally licensed operator. This law also required that certain items of equipment be carried in all motorboats, but made no provision for periodic inspection or certification of these vessels.
2. [Provisions of the Seamen's Act of 1915](#) were made applicable to merchant vessels of the United States of over 100 GT except river vessels.
3. [The Officers' Competency Certificates Convention, 1936](#), required all seagoing vessels of over 200 GT to be manned by licensed officers.
4. [The International Load Line Act \(1929\) and Coastwise \(Great Lakes\) Load Line Act \(1935\)](#) were made applicable to merchant vessels of over 150 GT departing on a voyage by sea or the Great Lakes.
5. The International Load Line Act of 1973 made the 1966

International Load Line Convention applicable to vessels over 79 feet.
[See Coast Guard Load Line Regulations and Policies.](#)

6. [The Bridge-to-Bridge Radiotelephone Act of 1972](#) applies to power driven vessels of 300 GT and upward while navigating; every vessel of 100 GT and upward carrying one or more passengers for hire while navigating; every towing vessel of 26 feet or over in length while navigating; and every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect the navigation of other vessels. [NOTE: On the Great Lakes, the [Great Lakes Agreement](#) between Canada and the U.S. applies.)

7. [The International Regulations for Preventing Collisions at Sea, 1972](#) (72 COLREGS) became effective 15 July 1977, and apply to all vessels operating outside the navigational lines of demarcation, called COLREGS Demarcation Lines.

8. [The Inland Navigational Rules Act of 1980](#) (Inland Rules) became effective on 24 December 1981 (except on the Great Lakes where the effective date was 1 March 1983) and applies to all vessels operating inside the COLREGS Demarcation Lines.

9. Commercial Fishing Industry Vessel Act of 1983, established safety, inspection, and manning requirements for the fishing industry. The Commercial Fishing Industry Vessel Safety Act of 1988 that added safety requirements for uninspected commercial fishing industry vessels and fishing voyage requirements amended this. See [Inspection and Regulation of Vessels](#).

10. Coast Guard Authorization Act of 1986, established additional manning requirements for mobile offshore drilling units (MODU's).

11. [Oil Pollution Act of 1990](#), established a fund for the payment of compensation for oil spill damages; required new tank vessels after 30 June 1990 to have double hulls and established a timetable for existing vessels to have double hulls; and established limits on liability for damages from oil pollution.

12. The Maritime Transportation Security Act of 2002 as codified in [46 U.S.C. Chapter 701](#), was written in response to security issues occurring after the attacks of 9/11/2001. This act required, among other items, establishment of regulations to increase the security of the nation's ports.

F. Codification Of [Title 46](#).

Public Law (P.L.) 98-89, enacted in August 1983, did much to clarify the complex scheme of shipping laws, which had developed in the piecemeal fashion described above over nearly two centuries. P.L. 98-89 revised, reorganized, and consolidated nearly all Coast Guard enforced provisions of Title 46, United States Code (U.S.C.), into a format organized essentially along program function lines. This was accomplished without controversial change to substance of the law, and resulted in the repeal of the outdated source laws, most notably Titles 52 and 53 of the Revised Statutes. Existing Coast Guard regulations were carried forward under the corresponding provisions of the "new" Title 46.

G. Oversight Efforts.

Today, Coast Guard regulations have incorporated the provisions of the [International Convention for the Safety of Life at Sea \(SOLAS\) 1974](#) to ensure compliance with such provisions by U.S. vessels on international voyages. Foreign passenger, cargo, and tank vessels arriving at or departing from U.S. ports are also examined under the control provisions of SOLAS by Coast Guard inspectors to ensure that they are maintained in compliance with the terms of the convention certificates issued by their home governments. They are also examined to ensure compliance with U.S. pollution prevention standards, navigation safety, and other requirements.

2.5.3 Regulatory Standards.

Navigation and shipping standards are published in Chapter I of [Titles 33 and 46](#), Code of Federal Regulations (CFR). These regulations provide detailed guidance for the design and operation of inspected vessels, and establish minimal requirements for uninspected vessels. See MSM Volume One for additional regulations.

2.5.4 Types of Inspections.

A complete description of all types of Commercial Vessel Safety inspections may be found in volume II of the [Marine Safety Manual](#). Life Safety is the focus of the Marine Inspection program.

2.5.5 Plan Approval.

A. Standards.

When U.S. commercial vessel interests contemplate the construction of a new vessel, their naval architects are guided by a set of standards. These standards are found in federal regulations, codes of classification and engineering societies, NVIC 8-84 ([Navigation and Vessel Inspection Circular](#)) "Recommendations for the Submittal of Merchant Vessel Plans and Specifications", and "good marine practice."

B. Plan Evaluation.

Vessel plans, which vary in sophistication depending upon the vessel type, are submitted to CVS personnel or to the [American Bureau of Shipping](#) (ABS) under applicable memorandums of understanding (MOUs) for approval. Equipment components (firefighting and lifesaving equipment, and certain construction materials) are likewise subject to some form of approval. Bulk liquid cargoes are required to undergo an evaluation of their hazards prior to classification; those with significant hazards are assigned a set of minimum requirements, which the tank vessel must meet in order to transport the product. As a vessel is being constructed, CVS inspectors require certain tests and inspections. The degree of examination depends upon the quality assurance/quality control programs of the constructor, the prospective owner, and specific agreements in effect with the cognizant classification society. When the vessel inspection has been completed, the cognizant OCMI issues an initial COI. Plan approval interest will continue for the duration of the vessel's life to ensure that major repairs, alterations, and regulated replacement equipment meet the required standards.

C. Regulation of Manning Standards And Crew Qualification.

Certificates of Inspection (COIs) contain provisions for the required minimal manning of an inspected vessel. Certain laws require the presence of licensed officers and certificated seamen of certain qualifications on various types of vessels. The varying levels of crew qualification are addressed in a large variety of federal regulations. [The National Maritime Center](#) works with mariners on licenses and documentation. Vessel personnel qualifications fall into two major categories:

1. Licensed Officers. ([Title 46](#))

These include masters, mates, engineers, pilots, staff, and radio officers. Licensed officers who satisfy the various experience, physical, and testing requirements of the regulations are issued licenses that are renewed at 5-year intervals.

2. Unlicensed Personnel. ([Title 46](#))

These include able seamen (AB), ordinary seamen, qualified members of the engineering department (QMED's), wipers, stewards, lifeboatmen, and tankermen. These personnel are issued Merchant Marine Documents (MMDs) that are endorsed with their qualifications. MMDs must be renewed every 5 years.

D. Marine Investigations.

Three specific statutory enactments address the matter of commercial vessel mishaps:

1. The legal responsibility of officers licensed by the [Steamboat Inspection Service](#) for loss of life occasioned by their misconduct, negligence, or inattention to duty was first recognized in the [Act of 1838](#). If, after conducting an investigation, the local Board of Inspectors was satisfied that the officer in question was incompetent or guilty of misbehavior, negligence, or lack of skill, or had endangered life, or willfully violated any provision of the steamboat inspection laws, the board was required to immediately suspend or revoke the officer's license. This power to investigate granted to the local Board of Inspectors was used as the authority for the investigation of marine casualties. In 1916, the Secretary of Commerce, in his annual report, pointed out that since there was no general authority of law for investigating marine casualties, if there were a disaster in which all of the licensed officers were killed, the Department would have no authority to investigate the cause of the casualty. It was not until 1936 that an act was passed that enabled the investigators to examine a casualty to determine the cause. But, at that time, the aim was still to determine whether there was any act on the part of any person that caused the accident. This has since evolved into the present law ([46 U.S.C. Chapter 63](#)), which requires investigation to determine the cause of the casualty as well as matters relating to personal fault.

2. [46 U.S.C. Chapters 61 and 63](#) require the report and investigation of marine casualties (as defined by regulation), including deaths. These statutes serve as the basis for a continuous monitoring of CVS activities wherein "failures" of the system (casualties) are required to be reported and investigated to determine causal factors and to initiate appropriate remedies. Citizens' reports of violations of navigation, vessel inspection, and marine documentation laws and regulations may be investigated ([33 CFR 1.07-10\(a\)](#)). Where indicated, punitive or remedial action is instituted. A limited number of surveillance and detection operations are conducted by CVS personnel to discover various violations of the vessel inspection and navigation laws.

3. [The Outer Continental Shelf Lands Act](#) of 1953 (OCSLA) and the amendments of 1978 (43 U.S.C. 1331-1356) require that the Secretary of the [Department of Interior \(DOI\)](#) and the Secretary of the Department in which the Coast Guard is operating investigate and make public reports on fires, major oil spillages, deaths, and serious injuries. The responsibilities of each agency are declared in the MOU between the Coast Guard and [the Minerals Management Service – MMS](#) formally the U.S. Geological Service). Additionally, the Coast Guard is charged with investigating

allegations of violation of safety regulations affecting occupational safety and health. All of these investigations provide the CVS Program with needed accident data concerning activities on mobile offshore drilling units (MODU's) and fixed platforms on the U.S. Outer Continental Shelf.

2.6 Port Safety and Security (PSS)

(formally Port and Environmental Safety (PES) Program.

2.6.1 Objectives.

The two objectives of the PSS Program are:

- To prevent, detect, and control pollution by oil, hazardous substances, or refuse; and
- To ensure the safety and security of vessels, facilities, structures, and persons on navigable waters of the U.S. and the Outer Continental Shelf.

2.6.2 Port Safety and Security Program goals are to:

- Develop and maintain the capability to respond to emergencies;
- Enforce federal laws and regulations in 100 percent of Captain Of The Port zones;
- Reduce the spill rate during transfer operations of oil and hazardous substances;
- Control the entry and the movement of all Special Interest Vessels in U.S. ports and waterways;
- Establish a downward trend in vessel casualties from unsafe cargo practices;
- Control access of personnel to U.S. ports;
- Reduce the incidence and magnitude of fires, explosions, or other serious casualties on designated waterfront facilities; and
- Reduce pollution in the offshore environment.

2.6.3 Historical Development.

The Port Safety and Security Program of the U.S. Coast Guard has gradually developed in response to a series of catastrophic events (see [Figure 1-1.](#)) that commenced in 1917, and the increased environmental awareness of the early

1970s. This resulted in legislation tasking the Coast Guard with additional maritime enforcement responsibility for marine safety, and primary responsibility for maritime pollution prevention. Additional growth of the PSS Program is continuing with the implementation of the [International Convention For The Prevention Of Pollution From Ships, 1973, as modified by the Protocol of 1978 \(MARPOL 73/78\)](#). Some of the major events that increased public awareness and led to legislation for the PSS Program are summarized below in [Figure 1-1](#).

2.6.4 Elements of The PSS Program.

A. PSS Enforcement Activities.

1. Safeguard U.S. ports, waterways, port facilities, vessels, property, and persons in the vicinity of those ports from accidental harm.
2. Gather, through harbor patrols, aerial surveillance, and other means, information necessary to promote safety of vessels, ports, environment, surrounding communities, and offshore areas.
3. Conduct in port boarding of U.S. and foreign vessels to determine compliance with pollution prevention regulations, navigation safety regulations, marine sanitation regulations, and to monitor cargo transfer operations.
4. Set safety zones, control vessel movement, issue COTP orders to protect the safety of personnel performing port operations, the facilities located in port, and the environment.
5. Enforce the statutes, regulations, and international agreements governing the safe handling, stowage, and movement of hazardous cargoes on vessels in the navigable waters of the U.S. and at waterfront facilities.
6. Enforce the statutes, regulations, and international agreements governing the prevention of pollution from facilities and vessels within waters under the jurisdiction of the U.S.
7. Enforce the pollution prevention regulations under [MARPOL 73/78](#) for vessel operational controls and equipment and use of reception facilities for oil and noxious liquid substances.
8. Enforce the statutes and regulations under [MARPOL 73/78](#) governing the discharge of ballast, tank washings, and other wastes containing oil or noxious liquid substances into the high seas.

9. Monitor and enforce the permitted ocean dumping of chemicals, sewage sludge, dredged material, etc.
10. Monitor and enforce requirements for ocean incineration operations.
11. Detain or deny entry to vessels which pose a significant safety threat to the port or environment.
12. Inspect waterfront facilities and enforce associated safety, cargo transfer, and pollution prevention regulations.
13. Enforce the statutes, regulations, and international agreements governing deepwater ports.
14. Enforce the statutes and regulations governing offshore lightering activities.

B. Port Security Activities.

1. Administer the Special Interest Vessel (SIV) Program.
2. Respond to threats or acts of intentional damage, destruction or disruption, espionage, sabotage, or terrorism in U.S. ports, harbors, and waters under U.S. jurisdiction.
3. Establish and enforce security and safety zones.
[\(See Marine Safety Manual\)](#)
4. Develop and maintain emergency response plans for military readiness, port and vessel accidents of all types, counterterrorism, civil disturbance preparedness, and natural disasters.
5. Inspect facilities and ships for compliance with port security requirements. [MTSA](#)

2.7. PSS Program Evaluation And Management.

2.7.1 Marine Safety Information System (MSIS).

After many casualties involving foreign tank vessels in U.S. waters in the 1960s and 1970's, Presidential Initiatives were developed to reduce the number and the effects of collisions, groundings, explosions, and discharges of pollutants involving such vessels. One element in these proposals was a "marine safety information system," through which COTP's would be able to identify vessels having histories of repeated safety violations, or for which dangerous conditions were reported. The Coast Guard was, at that time, already operating a Port Safety

Reporting System (PSRS) that provided limited histories and safety data, and a Pollution Incident Reporting System (PIRS) that was used to gather and maintain data on pollutant discharges in U.S. waters or involving U.S. vessels (this was used primarily for analytical purposes). The Presidential Initiatives spurred expansion of these systems and development of cross-referencing capabilities. This unified database became the Interim MSIS in September 1977. Accumulation of data involving all U.S. and foreign vessels required to provide 24-hour advance notice of arrival to the COTP was given high priority.

2.7.2 Marine Information for Safety and Law Enforcement (MISLE).

In December 2001, the outdated MSIS was replaced by a web-based system designed to incorporate the needs of both the marine safety (MS) community and the law enforcement (LE) community. MISLE provides a broader base for information in a more intuitive, useful format available to all Coast Guard users. It is under continuous development to improve its features.

FIGURE 1-1

EVENTS INFLUENCING PSS LEGISLATION

(also see http://en.wikipedia.org/wiki/Maritime_Security_%28USCG%29)

EVENT	RESULTING LEGISLATION	LEGISLATIVE CONTRIBUTION TO PES PROGRAMS
Black Tom explosion July 30, 1916	Espionage Act June 15, 1917	Empowered to make regulations to prevent damage to harbors and vessels during national security emergency.
SS MUENCHEN fire/explosion February 11, 1930 Cunard Pier fire May 6, 1932 SS SAINT AMBROSE and Algiers dock fire July 27, 1939	Dangerous Cargo Act March 28, 1940	Authority to develop and enforce regulations governing carriage of explosives and dangerous cargoes on vessels.
Texas City, TX SS GRANDCAMP explosion/fires April 16, 1947	33 CFR 126 April 17, 1964	Required more stringent regulation of ammonium nitrate, nitro/carbonitrate, and bulk hazardous cargoes in general.
"The Red Scare" 1949-1950	Magnuson Act , August 9, 1950 -- E.O. 10173, October 18, 1950	Provided permanent port security regulations, broad powers to search vessels in U.S. waters and control movement of foreign vessels in U.S. ports.
South Amboy NJ explosion, May 19, 1950	Amendment to the Dangerous Cargo Act July 16, 1952	Prohibited issuing of explosives loading permits to vessels unless shipment conforms to regulations and permit reflects any other COTP requirements.
SS TORREY CANYON grounding/oil spill March 18, 1967 USS YANCY damage Chesapeake Bay Bridge January 21, 1970 SS OREGON STANDARD and SS ARIZONA STANDARD collision/oil spill January 18, 1971	Ports and Waterways Safety Act of 1972 July 10, 1972	Provided port safety authority and capability beyond Magnuson Act to protect use of ports as transportation facilities and to aid efforts against degradation of marine environment.
SS ARGO MERCHANT grounding/oil spill December 15, 1976 SS SANSINENA explosion December 17, 1976.	Port and Tanker Safety Act of 1978 October 17, 1978	Improved supervision and control of vessels in U.S waters and inspection and program for tank vessels carrying oil and hazardous cargoes.

Chapter Two Review Questions

1. True or False?

The permitted ocean dumping of chemicals, sewage sludge, dredged material, etc. is legal.

2. The legal responsibility of licensed officers for loss of life occasioned by their misconduct, negligence, or inattention to duty was first recognized in the:

- a. Security of life on steamboats “Act of 1838”.
- b. Ports and Waterways Safety Act of 1972
- c. Espionage Act of 1917
- d. Magnuson Act of 1950.

3. MARPOL 73/78 contains regulations aimed at preventing and minimizing pollution from ships in which of the following areas?

- a. oil and noxious liquid substances in bulk,
- b. air pollution and sewage and garbage from ships,
- c. both a and b
- d. neither a nor b

4. Section 1.J of the Marine Safety Manual, Volume I is entitled _____.

- a. Marine Safety Program
- b. Bridge Administration Program
- c. Port Safety and Security Program
- d. Coast Guard Recreational Boating Safety (RBS) Program.

5. Force Majeure is defined in Volume 6, Section 1.F of the MSM as:

- a. The power a nation has to enforce its territorial waters. Also known as eminent domain.
- b. The ability of a ship to travel freely on the open oceans of the world. Also known as the common law “right of free passage”.
- c. The condition of such severity that it threatens the loss of the ship unless immediate action is taken to enter the territorial waters of another nations without approval. Also known as emergency entry.
- d. The ability of a ship to travel throughout the world, knowing international law will legally support its passage.

6. CFR Title 33 covers _____, CFR Title 46 covers _____, and CFR Title 49 covers _____ respectively.

- a. Transportation, Marine Safety and Environmental Protection, Shipping.
- b. Navigation and Navigable Waters, Marine Safety, Environmental Protection.
- c. Navigation and Navigable Waters, Shipping, Transportation
- d. Shipping, Navigation and Navigable Waters, Transportation

3.0 Auxiliary Support for Coast Guard Marine Safety Programs

Auxiliary activities in support of Coast Guard Marine Safety must be coordinated with each member's District Staff Officer for Member Training and Director of Auxiliary. CFR 46 restricts Auxiliary members from law enforcement activities and HAZMAT involvement.

Authorized activities include:

3.1 Maritime Observation Mission (MOM)

The goal of Maritime Observation Missions is to provide increased domain awareness by observing, recording and reporting findings to the Operational Commander. Auxiliary activity can be authorized in all activities or areas where the actions of the boating public/citizenry are not prohibited. Areas to observe include ports and waterways, vessels, land based infrastructure and targets and vulnerabilities. [MOM patrol presentation \(pdf\)](#)

3.2 Container Inspection Support

Auxiliarists are trained in container recognition and teamed with Coast Guard and Reserve inspectors to augment the labor-intensive work of checking container markings, identifying suspect or damaged containers, and supporting qualified inspectors during the process of opening containers and verifying contents. Auxiliarists are not authorized to open nor enter containers.

3.3 Support for ferry and small passenger vessel inspections.

Auxiliarists are trained as assistant marine inspectors and teamed with Coast Guard and Reserve inspectors to augment vessel and equipment inspections, including inspections of lifeboats, rafts and personal flotation devices on these vessels.

3.4 Examination of commercial towing vessels and uninspected passenger vessels (UPVs).

Auxiliarists are trained and qualified to perform inspections of commercial tow vessels, as well as boats engaged in commercial passenger carriage generally known as "six-pack" operations (in that the master is licensed to carry no more than six passengers for commercial purposes, often for charter fishing trips)

3.5 [America's Waterway Watch \(AWW\).](#)



America's Waterway Watch is a national awareness program that asks those who live, work or recreate on or near the water to be aware of suspicious activity that might indicate threats to our country's homeland security. Americans are urged to adopt a heightened sensitivity toward unusual events or individuals they may encounter in or around ports, docks, marinas, riversides, beaches or communities. Anyone observing suspicious activity is simply asked to note details and contact the National Response Center's hotline at 877-24WATCH.

3.6 Support for Regional Examination Centers (RECs) and field visits to maritime training schools.

Auxiliary members are trained and qualified in administrative and technical duties associated with the operation of RECs, participation in traveling exam teams, review and approval of new courses from maritime training schools, field audits of those schools, and the administration of the oath of office to new merchant marine officers. [See National Maritime Center.](#)

3.7 Commercial Fishing Vessel examinations (CFVEs) and "Dockwalkers" public affairs support.

Auxiliary members are trained and qualified to perform dockside examinations of commercial fishing vessels and to issue decals certifying compliance with applicable federal regulations for those vessels and their equipment. In addition, other Auxiliary members support the CFVE program through a public affairs activity known as "Dockwalkers," where members visit fishing docks and marinas for the purpose of providing information on Federal regulations affecting the commercial fishing fleet, their safety equipment and safe working practices for the industry

3.8 Development of training and qualifications standards and materials for Auxiliary members participating in marine safety programs and activities as directed by the Coast Guard.

Auxiliary members working on the Department's national staff are tasked with the development and updating of training and qualifications standards for members participating in the marine safety and Trident program. These training and qualifications standards include the [PQS documents](#) that define and describe the steps necessary to become certified in each functional area of the marine safety program to qualify for the Trident award. They are vetted and approved by the various headquarters program managers prior to release.

3.9 Facility Inspections

Auxiliarists are trained in Facility Inspections and teamed with Coast Guard and Reserve inspectors to augment the work of conducting Port Facilities for Safety and Security (MTSA) compliance inspections.

3.1.0 Domestic & Port State Inspections

Auxiliarists are trained and qualified to assist with the inspections of commercial Domestic and Foreign Flagged (Port State Control) vessels. For foreign flagged vessels this includes safety & security issues under [IMO](#) agreements, The International Ship and Port Facility Security Code ([ISPS Code](#)), and the requirements in [Vol. II of the Marine Safety Manual](#). Domestic Inspected vessels are covered under [MTSA](#) and [Vol. II of the Marine Safety Manual](#).

3.11 Investigations

Auxiliary members may assist in the Investigations department of the Sectors after qualifying as: Assistant Marine Casualty Investigator, Assistant Maritime Enforcement Investigator or Assistant Suspension and Revocation Inspector.

3.12 Auxiliary Trident specialty areas in support of Coast Guard Marine Safety Programs

The Auxiliary Trident program provides Auxiliary members a number of additional options that directly support the Coast Guard.

[Click here](#) for information on the following specialty areas.

- Assistant Contingency Planner
- Assistant Port State Control Examiner
- Assistant Container Inspector
- Assistant Federal On Scene Coordinator Representative
- Assistant Pollution Response Specialist
- Assistant Facilities Inspector
- Assistant License & Document Evaluator
- Assistant License & Document Examiner
- Assistant Liferaft Inspector
- Prevention Outreach Specialist
- Marine Safety Administrative & Management Specialist
- Port State Control Dispatcher
- Uninspected Passenger Vessel Examiner
- Uninspected Towing Vessel Examiner
- Commercial Fishing Vessel Safety Examiner
- Assistant Marine Casualty Investigator

Assistant Maritime Enforcement Investigator
Assistant Suspension and Revocation Inspector
Assistant T-Boat Inspector
Assistant K-Boat Inspector
Assistant Machinery Inspector
Assistant Machinery Inspector (steam)
Assistant Barge Inspector
Assistant Hull Inspector
Assistant Foreign Passenger Vessel Examiner
Assistant Foreign Freight Vessel Examiner
Assistant Waterways Management Representative

Chapter Three Review Questions

1. Regional Exam Centers:

- a. are maritime training schools.
- b. are field audit units.
- c. assist merchant mariners with re-licensing.
- d. are traveling exam team headquarters.

2. True or False?

Auxiliary members are allowed to enter containers if the owner has granted prior approval.

3. CFR 46, Section 27.101 defines towing vessel as a commercial vessel engaged in, or intending to engage in any combination of _____.

- a. pulling, pushing, or hauling alongside.
- b. pulling or pushing another vessel.
- c. CFR 46 does not contain a towing vessel definition.
- d. none of the above.

4.0 The Marine Environmental Protection (MEP) Program

The Coast Guard's concerns extend to pollution and threats of pollution in the coastal zone. This zone includes:

- U.S. waters subject to the tide,
- U.S. waters of the Great Lakes,
- specified ports and harbors on inland rivers, and
- the contiguous zone and waters on the high seas out to 200 miles.

There are five elements involved:

1. Assessing discharges and releases to ensure appropriate response;
2. Preventing spills whenever possible;
3. Ensuring that responsible parties clean up discharges of oil and releases of hazardous substances;
4. Mitigating the effects of spills that do occur; and
5. Reducing the potential for spills or operational discharges outside U.S. waters from entering U.S. waters or fouling U.S. coastlines.

These elements are considered in all cases of pollution or threatened pollution that arise from:

- deepwater ports or Outer Continental Shelf activities;
- damage to or threats to natural resources under the exclusive management jurisdiction of the U.S.;
- threats to the U.S. coastline or related interests; or
- threats that may cause other major harmful consequences.

4.1 History.

Since the 19th century, the Coast Guard and its forebears have been involved in the enforcement of U.S. antipollution laws. A lack of public concern and political interest meant few resources and funds were available for adequate enforcement prior to 1970. A series of casualties, beginning with the 1967 grounding and disastrous discharge from the oil tanker [TORREY CANYON](#), led to the Coast Guard's present MEP efforts. These are founded on [Environmental statutes](#) intended to minimize pollution by authorizing various federal agencies to promulgate standards and regulations. Among these are:

- [Marine Protection, Research and Sanctuaries Act](#) (MPRSA), which addresses ocean dumping and establishes marine sanctuaries.

- [Act to Prevent Pollution From Ships](#) (APPS), 1980, resulting from MARPOL 73/78.
- [Ports and Waterways Safety Act of 1972](#) (PWSA), which addresses the control of vessel traffic entering U.S. ports and the construction of tank vessels for safety and pollution abatement purposes.
- [Federal Water Pollution Control Act](#) (FWPCA), as amended,
- [Intervention on the High Seas Act](#). 33 U.S.C. 1471-1487 (2002)
- [Comprehensive Environmental Response Compensation and Liability Act](#) (CERCLA) of 1980.
- [Oil Pollution Act](#) (OPA 90) that modified tanker construction standards and reorganized the administration of the Oil Pollution Compensation Fund and led to the establishment of the National Pollution Funds Center in metropolitan Washington DC.

4.2 Program Activities.

The Coast Guard's environmental concerns are pursued through development of international agreements and treaties, and through the development, administration, and enforcement of federal statutes and regulations. These elements are accomplished by:

- A. Ensuring that all potential or actual spills of oil or hazardous substances occurring within areas of Coast Guard jurisdiction are brought to the attention of the Coast Guard and are assessed.
- B. Responding to discharges and threats of discharges of oil or releases of hazardous substances to minimize any damage and remove the pollutant from the environment.
- C. Monitoring clean-up actions by responsible parties to ensure appropriate response actions are taken.
- D. Working through the [International Maritime Organization](#) (IMO) to achieve higher levels of pollution control for all classes of vessels.

4.3 Pollution Response Activities.

After notifying the Coast Guard, the party responsible for a discharge or release usually undertakes removal; if not, the Coast Guard urges the polluter to do so. The clean-up activities are monitored by the Coast Guard to ensure that appropriate action is being taken. If the responsible party fails to act properly or

cannot be located, the federal government may take over the clean up pursuant to the [National Oil and Hazardous Substances Pollution Contingency Plan](#) (NCP). In such a case, the responsible party is liable, with certain exceptions, for all costs of removal up to their limits of liability. The U.S. Coast Guard maintains a [National Strike Force](#) (NSF), specially trained and equipped to respond to major marine pollution incidents. In addition, the NSF has assisted foreign governments upon request in major international pollution cases.

4.4 Response Oversight.

The Coast Guard operates the [National Response Center](#) (NRC) around-the-clock to receive notification of pollution incidents and to ensure that information is passed to the pre-designated Coast Guard or EPA OSC for response. The NRC provides a toll-free number (800-424-8802) for making pollution reports from anywhere in the United States. [The NRC provides services for other government agencies](#) to enhance the Federal Response System. These agencies and others include: the Environmental Protection Agency, the Federal Emergency Management Agency, the Nuclear Regulatory Commission, Department of Energy, Department of Defense and Department of Interior.

To meet increasing national response requirements, an extensive research and development program has been undertaken, resulting in the development of cargo removal equipment, containment and pollutant recovery devices, and forensic identification equipment.

4.5 International Conventions.

A number of international conventions are aimed at resolving pollution problems:

- [International Convention Relating To Intervention On The High Seas In Cases Of Oil Pollution Casualties](#), 1969 and the 1973 Intervention Protocol;
- [Convention On The Prevention Of Marine Pollution By Dumping Of Wastes And Other Matter](#), 1972 (London Dumping Convention);

And

- [MARPOL 73/78](#) (The International Conventions for the Prevention of Pollution from Ships of the International Maritime Organization).

4.6 Coast Guard In-House Compliance with Environmental Law.

In-house environmental compliance, although not a marine safety program function, is a responsibility of all Coast Guard units. All Coast Guard facilities must comply with the same federal, state, and local environmental standards,

procedural requirements, and schedules for cleanup that apply to individual citizens and corporations. Coast Guard facilities must comply with [environmental laws](#) including any applicable standards concerning pollution abatement.

4.7 Marine Pollution Financial Responsibility and Compensation Activity.

[The National Pollution Funds Center](#) (NPFC) was established in Arlington, Virginia and staffed by Coast Guard officers and civilian personnel. The NPFC administers the financial responsibility provisions of six water pollution statutes:

- the [Federal Water Pollution Control Act](#) (FWPCA), as amended by the [Clean Water Act of 1977](#);
- the [Trans Alaska Pipeline Authorization Act](#) (TAPAA);
- the [Outer Continental Shelf Lands Act Amendments of 1978](#) (OCSLAA);
- the [Deepwater Port Act](#) (DPA), as amended;
- the [Comprehensive Environmental Response Compensation and Liability Act \(CERCLA\) of 1980](#); and
- the [Oil Pollution Act of 1990](#).

The Fund administered by the NPFC is supported by fees received from the owners and operators of all facilities and vessels engaged in oil exploration, production, or transportation. The Fund is available for cleanup and removal costs and damages, when the damage caused by the responsible party exceeds or is exempt from statutory liability, or when the responsible party cannot immediately meet its liability. Procedures for claims of compensation from the Fund are spelled out in [33 CFR 136](#).

A. Philosophy.

Equity, social policy, and tort law place the initial and primary responsibility to compensate victims of pollution damage on the vessel operator whose vessel or operation caused the damage. A vessel operator and the owners or operators of offshore facilities engaged in OCS crude oil exploration, production, or transportation activities, or U.S. deepwater port activities regardless of nationality, are required by law to demonstrate the ability to meet such responsibility in return for the right to conduct business on the public waters of the United States.

B. Objective.

The major objective of the program has been to bring about a reversal of the traditional practice whereby U.S. taxpayers and other damaged parties often suffered the financial loss resulting from the cleanup of oil and other pollutants discharged into U.S. waters. Under the current program a discharger's ability to shift the clean-up cost burden to the U.S. Treasury (or an insolvent vessel

operator's ability to enter and conduct business on the public waters of the United States with impunity) is practically nonexistent. To date, the program has been an unqualified success, thanks to the enforcement efforts of [U.S. Customs](#) and Coast Guard units.

C. Certificates of Financial Responsibility (COFRs).

Under the above-mentioned laws, vessel and facility owners or operators establish and maintain satisfactory evidence of insurance, surety bonds, guarantees, or self-insurance which guarantee reimbursement to the U.S. Government and certain other damaged parties, up to the limits required by law. Failure of a vessel to carry a valid COFR results in automatic detainment of the vessel until the National Pollution Funds Center can be contacted.

D. Coast Guard/U.S. Customs Service Enforcement.

The National Pollution Funds Center maintains a Monday through Friday watch, 0830 to 1700 EST, to process telephone inquiries on vessel COFRs received from Coast Guard and Customs Service enforcement officials in the field. This joint Coast Guard/Customs Service enforcement program is designed to make enforcement more effective, but less burdensome to the vessel operating industry. During an average year, the Center will receive and immediately process 1,400 telephone enforcement inquiries. Only 1 to 2 percent of the involved vessels which are the subjects of those enforcement inquiries will suffer actual detainment beyond their intended sailing times for noncompliance with the law. In the remaining cases, the Center will be able to preclude actual detainment by informing the enforcement officials that the vessels are in, or have recently come into, substantial compliance with the law – even though COFRs are not on board (e.g., a COFR may have been misplaced by the vessel operator or it was applied for too late to be placed on board before the vessel entered U.S. waters).

E. Regulations.

Program implementing and governing regulations are published in [Title 33 CFR](#), Subchapter L, Parts 133-138.

F. Financial Responsibility Benefits.

In addition to considerations of equity, properly implemented financial responsibility requirements can be justified on the basis of the four major benefits that flow from them.

1. A vessel can escape United States jurisdiction after causing pollution damage. Nevertheless, the insurance or other evidence of financial responsibility currently required to be kept on file with the Assistant Commandant for Marine Safety, Security, and Stewardship (CG-5)

ensures that if a vessel can be identified through witnesses, [oil fingerprinting](#), or other means, the interests of the United States and other claimants will be protected up to the statutorily fixed amounts of liability. Financial responsibility requirements thus make custody of the vessel largely irrelevant.

2. For the same reason controlling cases of non-custody, financial responsibility requirements ensure that a statutorily fixed amount of liability will be met even if the discharging vessel sinks (or facility is destroyed) during the incident which causes the spill, is heavily mortgaged, or has a market value far below the amount of pollution claims brought against it. Specifically, the so-called direct action provisions contained in existing financial responsibility statutes enable claimants to proceed directly against the insurer or other guarantor who provides the evidence of financial responsibility on behalf of the facility or vessel, without regard to whether or not the spiller is willing or able to pay from its own resources.

3. Financial responsibility requirements tend to prevent unscrupulous and/or financially unsound vessel or facility owners or operators from entering or operating in United States waters or the Outer Continental Shelf (OCS). Such owners or operators either do not have the necessary initial operating capital to purchase insurance or simply do not wish to purchase insurance. An owner or operator with an unfavorable pollution history or an operator whose vessel cannot pass a pollution survey without needed repair would find it difficult or impossible to obtain insurance. Without insurance from an acceptable insurer or some other acceptable showing of financial responsibility, no COFR, which is a prerequisite for operation in United States waters or on the OCS, would be issued.

4. A facility or vessel owner or operator who is required by law to maintain financial responsibility for pollution liability in order to operate, and who thereafter discharges a pollutant, need not hesitate to notify the Coast Guard and hire a clean-up contractor before wind, tide, or currents magnify the area of ecological damage. Insurance companies do not look with favor on operators who fail to promptly notify the Coast Guard of a spill and/or take immediate action to reduce the damage. Since 1970, there has been a combination financial responsibility/fund approach, both under existing statutes and various proposed bills. Under this approach, the vessel or facility owner or operator retains the initial and primary responsibility to compensate victims of pollution, while the various funds come into play only for damages or clean-up costs which are not the responsibility of the discharger, or which exceed the discharger's liability or for which liability cannot be fixed. Moreover, if the financial responsibility factor were excluded from the current combination approach, it would be necessary to increase the amount of the various

pollution funds by a higher federal levy on oil (i.e., U.S. consumers)
and/or higher appropriations from the U.S. Treasury (i.e., U.S. taxpayers).

Chapter 4 Review Questions

1. True or False?

Oil Fingerprinting is a field technique that attempts to match pollutant with polluter by tracing the exact source of oil spills, thereby not allowing the polluter to continue its voyage and escape liability for the clean up.

2. Failure of a vessel to carry a valid _____ results in automatic detainment of the vessel until the National Pollution Funds Center can be contacted.

- a. Certificate of Inspection (CIO)
- b. Certificate of Licensed and unlicensed merchant mariners
- c. Certificate of Financial Responsibility (COFR)
- d. none of the above.

3. True or False?

Financial responsibility requirements tend to prevent unscrupulous and/or financially unsound vessel or facility owners or operators from entering or operating in United States waters or the Outer Continental Shelf (OCS).

4. CERCLA legislation is also known as: _____.

- a. "taxpayers safety net"
- b. "Marine industry clean-up" legislation.
- c. EPA "priority legislation".
- d. "Superfund".

5.0 Auxiliary Support for Coast Guard Marine Environmental Protection and Response Programs

Auxiliary activities in support of Coast Guard Marine Environmental Protection Program must be coordinated with each member's DSO for Member Training and Director of Auxiliary. CFR 46 restricts Auxiliary members from law enforcement activities and HAZMAT involvement. See: Prevention Outreach Specialist qualification and the [Auxiliary Prevention Outreach Division web site](#).

5.1 "Sea Partners" and "Officer Snook" Education & Public Outreach Program



The [Sea Partners](#) Campaign is an environmental education and outreach program focused on communities at large to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations. Coast Guard and Auxiliary members have been involved in the Sea Partners effort from the very beginning and have played an active role in spreading the Sea Partners message.

An initiative of Jennifer Sevin of Coral Gables, Florida, Officer Snook is a cartoon character that symbolizes the importance of environmental protection. The [Officer Snook program](#) is aimed at making primary school students aware of marine pollution, the effects pollution has on water quality, animal and plant populations, and human safety

Program materials are available from the [Auxiliary National Supply Center](#) or [7-Dippity.com](#) and may be used by members to support youth education programs.

5.1.1 Authority

The primary legislative authority for the Sea Partners Campaign comes from the [Marine Plastic Pollution Research and Control Act of 1987](#),

5.1.2 Educational Philosophy

Upon passage of this legislation, an education philosophy for the Marine Environmental Protection program was developed. The three methods of achieving MEP compliance are:

- Enforce the regulations by traditional means for those users who are aware of them and are able to comply but do not do so.
- Reward those users who are aware of the regulations and comply in an exemplary fashion. From this concept, the [Benkert Award](#) for excellence in marine environmental protection was developed.
- Educate those users who do not comply with the regulations because they are unaware of them or do not understand them. This is where Sea Partners comes in.

5.1.3 Operations/Structure

Sea Partners is operated basically out of the Sector Prevention Offices, although some have begun to include Sea Partners materials in activities such as boardings. Each Prevention Office should have a team of trained outreach specialists who are capable of making presentations to a variety of audiences. These team members should receive on-the-job or formal training in:

- marine pollution problems and solutions
- marine environmental protection laws and regulations
- the Coast Guard's role in marine environmental protection
- outreach strategy
- preparation of presentations
- tailoring presentations to various audiences
- use of audio-visual and printed materials
- public affairs
- recruiting

5.1.4 Auxiliary Support

Auxiliarists can support the goals of Sea Partners in three ways:

- Inclusion of environmental materials in boat show booths and other public affairs events. Brochures with environmental protection messages are stocked at the Auxiliary National Supply Center.
- Inclusion of environmental protection information in boating safety classes, vessel safety checks and program visits (formally marine dealer visits). For detailed information on specific pollution issues, study the Ocean Conservancy's *Good Mate* manual and materials.
- Assistance to the Sea Partners program through public presentations at schools, yacht clubs, business groups, etc. To get involved, Auxiliarists should contact the Sea Partners Coordinator of their Sector Office.

5.2 Aquatic Nuisance Species (ANS) Mitigation

Aquatic nuisance species are non-native plants and animals introduced into the waterways that upset the natural ecology of the marine environment and are harmful to existing native species. The Coast Guard is one of several federal agencies charge with reducing the influx and impact of these species. See the [Aquatic Nuisance Species Task Force](#) web page for web resources.

Coast Guard and Auxiliary members perform public affairs, public education and marine safety missions in connection with boater education and marina public information to abate the spread of these harmful and costly visitors.

ANS are responsible for causing significant economic and ecological problems throughout the United States. These non-native species are introduced into water bodies where they are often freed from their natural predators allowing them to flourish in their new surroundings. ANS can have a devastating effect on native species, water quality and water intake systems. In some cases the introduction of ANS is intentional, such as stocking fish in a water body, but often times it is an accidental by-product of man's activities, such as shipping. Although one of the primary vectors for the introduction of ANS is through the discharge of a ship's ballast water, once established in their new environment, they are often spread by recreational activities including SCUBA, waterfowl hunting, recreational angler bait harvest, boating, and operation of seaplanes and personal watercraft.

Auxiliarists are encouraged to use the Aquatic Nuisance Species trunk that contains ANS samples and educational materials for public education classes, boat shows and member training activities. The traveling trunk can be requested thru your Division or Flotilla Commander or Division or Flotilla Material Staff Officer from the Auxiliary National Supply Center. Other materials are available on the [Prevention Outreach Division's Web page](#).

5.2.1 Authority

The [National Invasive Species Act of 1996](#) amended and re-authorized the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646).

Program information and updates can also be accessed through the Coast Guard's Environmental Standards Division (CG-5224) website at [USCG: CG-5224 Environmental Standards Division](#).

In addition to ANS public education and information activities, the Coast Guard and Auxiliary support two ANS mitigation programs. The first is the [Smithsonian Environmental Research Center](#) and the second is the work of the [100th Meridian Initiative](#), a program focused on the goal of stopping ANS migration westward of the 100th meridian line in the United States and Canada.

5.3 The Good Mate Program

Developed by the Ocean Conservancy, the Good Mate program is an environmental education and awareness program for recreational boaters. It presents waterway management and conservation issues in text, video and CD-ROM formats and provides a rich and very complete training program for both the boating public and members of the Coast Guard. Members may use the program, in conjunction with a facilitator guide developed for it, as a public education and public affairs resource. Auxiliary members are encouraged to complete the program as part of the Auxiliary's [Trident Program](#) and a basic training course for the [Marine Safety Training Ribbon](#).

5.4 National Clean Boating Campaign/[Clean Vessel Act](#) Support

"Boating is good clean fun. Let's keep it that way." That's the theme of the National Clean Boating Campaign; a nationwide event sponsored each summer by the [Marine Environmental Education Foundation](#) (MEEF). MEEF is a nonprofit consortium of marine professional organizations dedicated to working together to improve the boating experience through clean water education.

The goal of the National Clean Boating Campaign is to minimize the impact on water quality from boating activities through a national outreach educational program.

5.4.1 Campaign Objectives

The National Clean Boating Campaign objectives for clean boating include:

- Building a network of national, state, and local organizations, businesses, agencies, and individuals to promote clean boating practices.
- Organizing annual National Clean Boating Celebrations of recreational boating and clean water each summer
- Producing a national education campaign to promote clean water practices by the recreational boating industry and boating public
- Developing corporate and public partnerships to support and promote clean boating and clean water
- Increasing industry and boating public awareness of the importance of water quality protection.

Auxiliary members participate through organization and participation in public events and by the distribution of information and material on behalf of clean boating. In addition, Coast Guard and Auxiliary members are active in supporting the aims of the Clean Vessel Act by encouraging boaters to use sewage pumpout stations wherever available and encouraging marinas to take advantage of government grant funds to install pumpouts.

5.5 [Clean Marina Program](#) Support

The national clean marina program is a voluntary initiative in which the federal and most state governments, through their environmental protection agencies, partner with state marine trades associations and public and private marina owners to put in place effective management practices to reduce pollution from marina operations and improve water quality.

Coast Guard Auxiliary members provide information on the program, encourage participation through MDV and public affairs visits, and provide referrals to resources that marina operators can use to improve marina management practices. In addition, they provide information of how marinas can earn the state's "Clean Marina" flag and designation, which helps promote both marina business and water quality at the same time.

5.6 National Marine Debris Monitoring and Beach Cleanup Programs

The International Coastal Cleanup began as a local effort in Texas but has expanded to 90 countries and over 700,000 volunteers. The [Ocean Conservancy](#) organizes this annual effort through a network of state and country coordinators and with the help of a number of corporate sponsors.

The National Marine Debris Monitoring Program is an effort by the Ocean Conservancy to study debris over a 5-year period at 180 selected coastal sites in nine regions across the United States. This five-year study was designed to answer two crucial questions:

- 1. Is the amount of debris on our coastlines increasing or decreasing?*
- 2. What are the major sources of this debris?*

5.6.1 The Problem of Marine Debris

An estimated 14 billion pounds of debris were once dumped into the ocean and inland rivers and lakes every year. Merchant ships alone jettisoned 5.5 million containers every day. Fortunately, due to the [MARPOL](#) treaty of 1988, much, though not all, debris dumping is now illegal. But laws alone are not enough to stop pollution before it begins. Compliance, enforcement, and education are crucial components of long-term trash reduction. Auxiliarists that encounter possible illegal or dangerous substances while engaged in beach cleanup or activities that monitor marine debris, should contact the closest Coast Guard Sector Communication Center or local authorities and leave the substance in place.

5.6.2 How to volunteer

The International Coastal Cleanup is organized by the Ocean Conservancy. Check their web page:
<http://www.oceanconservancy.org/site/PageServer?pagename=home>
or call 1-800-262-BEACH.

5.6.3 Auxiliary Participation in Beach Cleanups

Auxiliarists and Auxiliary Units may participate in, but not sponsor, beach cleanup activities.

5.7 Marine Mammal Monitoring

From humpback whales in the Stellwagen Bank to Pacific Coast dolphins to manatees in Florida, marine mammal protection is a federal responsibility under the [Marine Mammal Protection Act](#). Working in concert with other federal agencies, state agencies and a host of private conservation organizations, the Coast Guard participates in monitoring and management practices to reduce mammal injuries and to rescue stranded or injured animals.

The Coast Guard's role in protecting marine mammals goes back to the days of the Revenue Cutter Service, when the Coast Guard began its first patrols of the new Alaskan territory in the 1860's. The first marine mammal protection laws were enacted in 1868 with the Fur Seal Protection Act. During the 1950's the United States instituted the Whaling Convention and reversed the trend of unrestricted hunting of whales. This was the first step in attempting to ensure the continued survival of the largest marine mammals. Today, there are a number of laws designed to protect marine species that are at risk. The principal laws are the [Endangered Species Act](#) (ESA) and the [Marine Mammal Protection Act](#) (MMPA). Additionally, the Coast Guard shares responsibility with state enforcement agencies for enforcing the [Marine Protection, Research and Sanctuaries Act](#), which established a number of marine sanctuaries around the country. The [National Marine Fisheries Service](#) (NMFS) is the lead federal agency in enforcing the Act. As the only U.S. maritime agency capable of at-sea enforcement, the Coast Guard enforces the MMPA under the basic law enforcement authority of [14 USC 2 and 14 USC 89](#).

The Auxiliary has a long tradition of activity and support in this area, performing monitoring patrols, recording and reporting mammal locations and behaviors, identifying mammals in difficulty and assisting in rescue operations. In addition, the Auxiliary is active in community education and in school support programs to familiarize the general public – and especially boaters – with responsible recreation practices.

5.8 HAZMAT/HAZWOPER Education and Patrol Support

All personnel, including Coast Guard and Auxiliary members, who participate in any response to any suspected oil spill or possible hazardous materials release event, are required by OSHA to have a level of training appropriate to their duties and responsibilities. In general, Auxiliarists should stay upwind and/or upstream of any spill or release. The most basic level of training is “[First Responder Awareness](#),” a four -hour basic course in the HAZWOPER (Hazardous Waste Operations and Emergency Response) series. First Responders are people who respond to a release of a hazardous material, recognize the situation as one that requires specialized assistance, and call for help. Coast Guard Auxiliary members may find themselves in this situation while on patrol and authorized to only observe and report.

5.9 Assistant Federal On-Scene Coordinator Representative and Assistant Pollution Response Specialist

Auxiliary members assist the Coast Guard’s Marine Environmental Protection Program by qualifying as a Assistant Federal On-Scene Coordinator Representative and an Assistant Pollution Investigator; both are part of the Trident Program.

Chapter Five Review Questions

1. True or False?

The penalties for failure to comply with the Mandatory Ballast Water Management Requirements found at <http://www.uscg.mil/hq/cg5/cg522/cg5224/ans.asp> can be a fine up to \$40,000 per day.

2. The National Marine Debris Monitoring program had as its goals to answer which of the following questions?

- a. Is the amount of debris on our coastlines increasing or decreasing?
- b. What are the major sources of this debris?
- c. both a and b.
- d. neither a nor b.

3. True or False?

All ships flagged under countries that are signatories to MARPOL are subject to its requirements, regardless of where they sail; and member nations are responsible for vessels registered under their respective nationalities.

4. The 100th Meridian Initiative is a cooperative effort between _____, _____ and _____ to prevent the westward spread of zebra mussels and other aquatic nuisance species in North America.

1. fish and game, wildlife and parks agencies
2. state, provincial, and federal agencies
3. city, county and federal agencies
4. none of the above

6.0 Office of Waterways Management - WWM, (CG 541).

6.1 Program Objective.

The objective of the [WWM Program](#) is to safeguard persons, facilities, vessels, and the marine environment subject to U.S. jurisdiction from destruction, damage, or loss resulting from vessel mishaps. The Waterways Management Staff supervises the planning and implementation of regulations for the prevention of collisions and groundings.

The WWM Program is involved thru [33 CFR](#), in the Administration of Federal Anchorages (33 CFR 109, 110); Inland Waterways Navigation Regulations (33 CFR 162); Towing of Barges (33 CFR 163); Navigation Safety Regulations (33 CFR 164); and Safety Zones and Regulated Navigation Areas (33 CFR 165).

6.2 Programs:

A. The Bridge Administration Division ([CG-5411](#))

The Coast Guard assumed responsibility for bridges in 1967 from the Army Corps of Engineers. The Coast Guard is responsible for approval of the location and plans of bridges and causeways constructed across navigable waters of United States. In addition, the Coast Guard is responsible for approval of the location and plans of international bridges and the alteration of bridges found to be unreasonable obstructions to navigation. The CG is also responsible for the regulation of drawbridge operations to balance both land and marine transportation needs.

B. The Marine Transportation System ([CG-5412](#))

As the world's leading maritime and trading nation, the United States relies on an effective and efficient marine transportation system to further enhance our global leadership. The [Marine Transportation System](#) Division is committed to promote prosperity, enhance American competitiveness, and ensure the United States has a world-class transportation infrastructure for the 21st century.

C. The Navigation System Division ([CG-5413](#)).

The Navigation System Division is composed of the Visual and Electronic Navigations Branches and the Navigation Standards Branch. Also see [the Navigation Center](#).

Chapter 6 Review Questions

1. The _____ (as defined in 33 CFR Section 2.30) means the waters seaward of and adjacent to the territorial sea, not extending beyond 200 nautical miles from the territorial sea baseline, as recognized by the United States.

- a. exclusive economic zone
- b. national territorial waters
- c. both a and b
- d. Neither a nor b

2. Conviction of interference with or damage to Aids to Navigation (as defined in 33 CFR Sec 70.05-5) shall be punished by a fine not to exceed_____.

- a. \$500
- b. \$1000
- c. \$2500
- d. \$4500

7.0 Auxiliary Support for Coast Guard Waterways Management Program (CG – 541)

Auxiliary activities in support for waterways management programs include the following activities:

7.1 Maritime Observation Mission ([MOM](#))

The goal of Maritime Observation Missions is to provide increased domain awareness by observing, recording and reporting findings to the Operational Commander. Auxiliary activity can be authorized in all activities or areas where the actions of the boating public/citizenry are not prohibited. Areas to observe include Ports and Waterways, Vessels, Land based infrastructure and Targets and vulnerabilities. Other activities include checking correct locations of [ATONs](#), [PATONs](#) and chart updating.

7.2 Identification of Abandoned Vessels and Barges

In a 1992 report to Congress, the GAO lamented the nationwide marine safety and environmental threat posed by abandoned vessels and recommended that the Coast Guard develop an accurate inventory of abandoned vessels to help address the problems posed by these vessels. Following the 1992 report, Congress enacted the [Abandoned Barge Act of 1992](#). The act prohibits the abandonment of barges over 100 gross tons, provides a civil penalty for up to \$1,000 per day for abandonment, and allows the Coast Guard to remove a barge that is abandoned. Auxiliary members support this effort through appropriate training and the conduct of MOM's designed to locate, identify and classify abandoned vessels.

7.3 Support to Local Harbor Safety Committees

Auxiliary members participate in and support a port coordinating body that addresses local marine transportation issues: the Harbor Safety Committee (HSC). The value of an HSC comes from providing a forum for facility operators, port users, and other interested parties – such as recreational boaters – to meet and to discuss subjects such as mutual safety, mobility and environmental protection issues. HSC responsibilities cover a wide spectrum of subjects, including recommending actions to improve the safety, security, mobility and environmental protection of a port or waterway. In the end, they provide the Coast Guard with the recommendations of the waterway users groups and a forum to review and consider those recommendations.

7.4 Support for the National Oceanic and Atmospheric Administration (NOAA) and the United States Army Corps of Engineers (USACE) with Chart Updating

The [Auxiliary Navigation Systems Division](#), Chart Updating Program encourages Auxiliary members to assist NOAA and the Army Corps of Engineers by providing the most current and reliable chart information needed for safe and efficient navigation.

The focus of the Auxiliary Chart Updating program is on prevention, accuracy, credibility, and professionalism, and is directed to build the competence level of every Auxiliarist. There are specific guidelines for measurements and reporting quality evidence in support of each on-scene observation. Observers are directed to define each chart update task, list on-scene observations, develop a conclusion from the collected evidence, and make a final recommendation to NOAA.

7.5 [Auxiliary Bridge Administration Program](#)

Through the Memorandum of Understanding between the Coast Guard and the Coast Guard Auxiliary, Auxiliary members render important assistance to the Coast Guard's Bridge Administration Program by the observation and reporting of discrepancies on bridges under Coast Guard jurisdiction in the United States.

The Auxiliary Bridge Program has two main components:

1. Bridge Discrepancy Reports

These are reports of problems identified by Auxiliary members, whether observed while on patrol, fishing, or just passing a bridge while ashore. Members are encouraged to note discrepancies (see the list of items shown below) on bridges and report them to the Coast Guard via their District's bridge program reporting channel. The Coast Guard Bridge Branch staff contacts the bridge owner to repair the discrepancy. It is recommended that Coxswains keep Bridge Discrepancy forms on their facilities. Discrepancies should be reported within 24 hours of the observation.

2. Annual Bridge Surveys

Bridge Surveys are a comprehensive review and report of a bridge to insure that the bridge meets the requirements of its Coast Guard permit. These annual surveys require both day and night and low and high tide observations.

Specific items looked for in both the Discrepancy Report and the Comprehensive Survey include the following:

- Navigation lights
- Fendering system
- Channel obstructions
- Regulatory signs and tide clearance gauges
- Bridge signaling and operation

7.6 Auxiliary Support to ATONs and PATONS

7.6.1 Auxiliary Federal Aid to Navigation Program

One of the primary responsibilities of the Auxiliary Federal Aid to Navigation Program is to report discrepancies observed on Federal Short Range Aids to Navigation (ATONs). The Auxiliary works with the U.S. Coast Guard to accomplish this important mission in the backwater and remote areas where the Coast Guard doesn't transit in the normal course of daily operation, as well as the more traveled waterways of the country. This is especially important after heavy weather, icing or strong current flow that may damage, move or strand the aid off station and when CG resources are strained the most.

All Auxiliarists regardless of qualification, when boating recreationally or under orders are encouraged to check and report all discrepancies to their CG Aids to Navigation (ANT) team on every Federal ATON in their area. When a Federal aid is found "watching properly", normally no report is made. Reports are made when a Coast Guard Unit specifically requests that a particular aid be checked, such as after a major storm, or after a report of a problem.

7.6.2 Auxiliary Private Aid Program

Private Aids to Navigation (PATONs) can only be set in navigable water after authorization by the Coast Guard. PATONs are maintained by, and at the expense of the owners. These aids may mark wrecks, provide lateral marks for channels (i.e., red and green lateral channel marks), aid marine research, or provide regulatory information (e.g., Slow Speed, No Wake, etc.).

The Coast Guard issues the permits and enforces compliance, but depends on the Auxiliary to be their eyes in the field to verify that the PATONs conform with their permit requirements. When an Auxiliarist reports a discrepancy the Coast Guard orders corrective action.

In the PATON program, the Auxiliary is responsible for:

1. Verifying all PATONs on a periodic basis set by the Coast Guard. PATON Verifications are only made by AV (Aid Verifier) qualified members.

2. Reporting non-permitted PATONs in public waters.
Reporting non-permitted PATONs are only made by AV (Aid Verifier) qualified members.
3. Reporting PATON discrepancies.
Any member can report PATON discrepancies at any time.

Chapter 7 Review Questions

1. M.O.M. is an acronym for:
 - a. Marine Officer Majority
 - b. Maritime Observer Manners
 - c. Maritime Observation Mission
 - d. None of the above.

2. True or False

Auxiliarists participating in MOMs may assist in the cleanup of chemical spills when approved by the Division Commander.

8.0 Recreational Boating Safety Program (RBS)

8.1 Coast Guard Mission

The mission of the Coast Guard's [Boating Safety Division \(CG -5422\)](#) and the Coast Guard Auxiliary is to minimize the loss of life, personal injury, property damage, and environmental impact associated with the use of recreational boats, through preventive means, in order to maximize safe use and enjoyment of U.S. Waterways by the public.

8.2 History and Today

The program stems from laws enacted as early as 1940 and further developed as the Motorboat Safety Act of 1971. Initially these laws prescribed limited standards for motorboat equipment and numbering boats.

Today's RBS program encompasses a much broader emphasis toward making boating safer. 46 USC 131 charges the Secretary of Homeland Security with carrying out a national recreational boating safety program. The goal of the program is to encourage the States/Commonwealths/District of Columbia/Territories to assume the major role in carrying out the boating safety mission and to foster greater development, use and enjoyment of all waters of the United States. The Secretary has delegated this authority to the Commandant of the U.S. Coast Guard.

See: [Federal/State Relations – Recreational Boating Safety](#)

8.2.1 Manufacturing Standards

The Coast Guard has detailed manufacturing standards and can require the manufacturer to repair any non-compliances or safety defects that are discovered after a boat is sold to a consumer. Enforcement relies on two mechanisms, laboratory testing of boats purchased on the open market and factory visits. The visits also allow for education of factory personnel.

See: [“Regulations” at Boating Safety Resource Center](#)

8.2.2 Public Contact

There is direct public contact through law enforcement boardings, coordination with state governments, and Coast Guard Auxiliary members.

8.2.3 Boating Accident Data

The Coast Guard compiles and analyzes boating accident data to uncover problem areas and develop solutions. One development set federal standards and penalties for operating a vessel while intoxicated; another established safety practices to

limit carbon monoxide exposure by boat operators.
See: [“Safety” at Boating Safety Resource Center](#)

8.2.4 Public Education and Vessel Exams

The Coast Guard Auxiliary, the US Power Squadrons, State boating officials and boating safety organizations conduct training courses and vessel safety checks to increase the public's knowledge of boat operations and safety practices.
See: [“Safety” at Boating Safety Resource Center](#)

8.2.5 State Boating Law Administrators

States have united in a national organization of [State Boating Law Administrators](#) to promote stronger and more uniform state laws. As a result, many have strengthened their boating safety laws and stepped up education and enforcement activities. The Coast Guard supports these activities with grant monies distributed to the states based on their levels of financial and resource dedication and number of numbered vessels.

8.2.6 National Boating Safety Advisory Council

The Coast Guard consults with a 21 member [National Boating Safety Advisory Council](#) twice a year, and works with individual Council members from the marine industry, state boating safety and national boating organizations/public boating interests throughout the year regarding improving manufacturing standards, public education and operating regulations. The Coast Guard also works with recognized independent organizations such as the [American Boat and Yacht Council](#), the [Society of Automotive Engineers](#), [Underwriters Laboratories](#), and the [National Fire Protection Association](#).

8.2.7 Grant Money

Grant monies are disbursed to national non-profit public service organizations for boating safety projects in the national interest. A noteworthy example of this is the Coast Guard's annual support for the [North American Boating Safety Campaign](#), concentrated public information, awareness and education program carried out each spring at the beginning of the boating season.

8.3 [Boat Responsibly](#)

Boat responsibly (formally BoatSmart) is a combined and coordinated effort of the National Association of State Boating Law Administrators (NASBLA) and its state partners, the U.S. Coast Guard and Coast Guard Auxiliary. The coalition's mission is to minimize the loss of life, personal injury, property damage, and environmental impact associated with the use of recreational boats through preventive means,, in order to maximize safe use and enjoyment of U.S.

waterways by the public. The above named partners have agreed to work as a coalition to promote a common boating safety message, greater “presence” with the boating public, and synergy of effort in recreational boating safety operations. The partners have agreed to reach out to other stakeholders in industry, business, recreation, and government to make boating safer. The coalition’s goal is a measurable positive change in boater behavior.

8.3.1 The four key messages accepted by all Boat Responsibly partners are:

- Wear a life jacket;
- Never boat under the influence;
- Take a boating safety course; and
- Get a free Vessel Safety Check (VSC).

8.3.2 Coast Guard Auxiliary Support

Auxiliary members support Boat Responsibly and the incorporation of these messages into existing channels such as public education classes, vessel safety checks and public affairs activities.

Chapter 8 Review Questions

1. True or False?

States have united in a national organization of State Marine Safety Administrators to promote stronger and more uniform state laws.

2. The purpose of the Coast Guard _____ is to improve the safety of the recreational boating public by reducing injuries and deaths on the nation's waterways.

- a. Marine Safety program
- b. Recreational Boating Safety (RBS) program
- c. Environmental Protection program
- d. Steamboat Inspection Service

3. The four principles accepted by all Boat Responsibly partners are:

- a. Wear a life jacket; and Never boat under the influence;
- b. Take a boating safety course and Get a free Vessel Safety Check (VSC).
- c. Both a and b
- d. Neither a nor b

9.0 Planning and Emergency Management

Auxiliary activities that support the Coast Guard's [Office of Incident Management and Preparedness \(CG – 533\)](#), include training, emergency mobilization and response. More specifically, these activities include:

9.1 Training and Familiarization with the [Incident Command System](#)

The Incident Command System (ICS) is a standardized response management system that is used extensively by government agencies and private organizations to organize and respond to complex events, both crisis and non-crisis. It has been adopted by the Coast Guard as its standardized system for all response operations. Coast Guard Auxiliary members train with and augment local response activities and organizations. Knowledge of the ICS system (see [ICS 100 material](#) for a summary) is critical to effectively supporting the Coast Guard's planning and response functions. ICS training is available to all Auxiliary members and many courses are required for Auxiliary leadership and Single Unit Resource Leaders (i.e. Auxiliary Coxswains, pilots, any member qualifying in the Trident Program or any other team/task force leader).

9.2 Guidelines for Emergency Response

The Department of Transportation published the "[Emergency Response Guidebook](#)". This document is based on the ICS system and is geared specifically to the unique situations involved in the use of a first responders and a volunteer force, such as the Auxiliary – in events of national significance.

9.3 Auxiliary Support to the Coast Guard for Local and Area Planning

The Coast Guard is charged with the preparation of area contingency plans for oil pollution and hazardous material response for each of its local areas of responsibility (AORs). Preparation of these plans requires local knowledge of resources and conditions that may be facilitated by Auxiliary members who can qualify as Assistant Contingency Planners. In addition, Auxiliary members are often active users of local waterways and frequently patrol them in connection with official duty assignments. As a result, Auxiliary members can – and should – bring local knowledge to bear on the development of area contingency plans and special events plans. Later, as the need arises, Auxiliary members are able to effectively integrate into the response organization because of prior involvement and field-testing of the planned event.

9.4 Cooperation and Team-Building With Local Emergency Response Organizations

The development and execution of local contingency plans is dependent on the integrated and coordinated efforts of local public agencies and responsible private

organizations working together with the Coast Guard. Coast Guard Auxiliary members are frequently active in their communities, often in situations where they have local knowledge and experience with other emergency response organizations. Experience has shown that the Coast Guard has called on this local knowledge and experience in the past to assist in emergency response. Auxiliary personnel active in the marine safety program should be actively employed as team builders and as liaison officers to local emergency response organizations

9.5 The Development of Field Training Exercises and Drills to Evaluate Emergency Preparedness

A critical measure of the effectiveness of a local contingency plan is found in one simple question: Will it work? The only way to answer that question is to conduct training exercises, both “tabletop” and in the field, to test the organization, the support systems and the readiness of the people to do the jobs assigned. Many Auxiliary members already have skills in preparing and evaluating emergency plans and exercises.

Chapter 9 Review Questions

1. The Coast Guard is charged with the preparation of area contingency plans for _____ and _____ response for each of its local areas of responsibility (AORs).
 - a. chemical spill and fire prevention
 - b. water and air pollution
 - c. oil pollution and hazardous material
 - d. none of the above.

2. Areas of management weaknesses in earlier incidents resulted in The Incident Command System (ICS) being developed. Some of these areas of weakness corrected by ICS were:
 - a. Lack of accountability and poor communication.
 - b. No method to integrate interagency requirements and overloaded Incident Commanders.
 - c. both a and b
 - d. neither a nor b.

10.0 Control and Enforcement Actions

10.1 Flag State and Port State Responsibilities

The Sectors have field level responsibilities for Marine Inspections. Two components are Flag State and Port State Responsibilities.

10.1.1 Flag State Responsibilities

Flag State refers to that authority of various federal laws, regulations, and international conventions and treaties under which a country exercises regulatory control over the commercial vessels registered under its flag. This involves the inspection, certification, and issuance of safety and pollution prevention documents. These inspections are carried out at different times during the life of the vessel, depending on the type of ship and the ship's area of operation. This authority extends to U.S. Flag vessels operating throughout the world.

10.1.2 Port State Responsibilities

Port State refers to that authority under which a country exercises regulatory control over the commercial vessels registered under another country's flag. This authority only exists while those vessels are operating within that country's territorial waters. The Coast Guard carries out this responsibility under the Port State Control (PSC) Initiative. The Coast Guard verifies that all foreign flagged vessels operating in U.S. waters are in substantial compliance with international conventions, as well as all applicable U.S. laws/regulations and treaties.

10.2 Vessel Categories

The four basic categories of vessels subject to inspection are:

10.2.1 Passenger vessels:

This category of vessel includes crew boats, nautical school vessels, cruise ships, excursion vessels, charter fishing boats, etc., carrying six or more passengers.



10.2.2 Tank vessels:

This category of vessel includes tank ships and tank barges.



10.2.3 Cargo vessels

This category of vessel includes container vessels, freight vessel, and roll-on/off (RO/RO) vessels.



10.2.4 Special use vessel:

This category of vessel includes mobile offshore drilling units (MODU), offshore supply vessels (OSV), oceanographic research vessels (ORV), oil spill response vessels (OSRV), nautical school vessels, sailing school vessels, etc.



10.3 Inspection Types

The different types of inspections are generalized into two broad categories: inspections of vessel safety systems and inspections of vessel security systems.

10.3.1 Vessel Safety System Inspections include the following:

- Hull inspection to ensure seaworthiness of vessel.
- Main/auxiliary power inspection to ensure safe and operable machinery for vessel propulsion and emergency power.

- Boiler inspection to ensure that it is structurally sound with operable safety devices.
- Electrical systems inspection to ensure satisfactory installation of wiring and equipment.
- Lifesaving systems inspection to ensure satisfactory and adequate means to abandon ship.
- Firefighting systems inspection to ensure fixed and portable devices are suitable for the intended space and type of fire.
- Navigation inspection to ensure adequacy and operation of navigation equipment.
- Pollution prevention inspection to ensure compliance with international regulations and domestic laws.

10.3.2 Vessel Security System Inspections include the following:

- Verification of security related documents and certificates such as the ship security plan, International Ship Security Certificate and Declaration of Security.
- Ensure appropriate training drills and exercises are being conducted.
- Ensure required onboard security procedures are in place.

10.4 Merchant Mariner Licensing

There are two categories of qualifications issued to U.S. merchant mariners:

- Merchant Mariner Documents
- Licenses

10.4.1 Merchant Mariner Documents

Individuals serving in non-officer positions do so under the authority of a Merchant Marine Document (MMD).

MMDs are issued for following positions:

- Able Bodied Seaman.
- Ordinary Seaman.
- Qualified Member of the Engineering Department.

- Steward.
- Tankerman.

10.4.2 Licenses

Individuals serving in officer positions do so under the authority of a Merchant Marine License.

Licenses are issued for the following positions:

- Deck Officer (Master, Chief Mate, Second Mate, Third Mate).
- Engineering Officer (Chief Engineer, First Assistant Second Assistant, Third Assistant).
- Pilot.

10.4.3 Regional Exam Centers

The Coast Guard operates several Regional Exam Centers (REC) throughout the country. RECs administer the tests for both licenses and documents, and maintain Merchant Mariner application files.

Also see Section 3.6 Auxiliary Support for RECs.

10.5 Marine Investigations

The Coast Guard investigates marine casualties and allegations of improper merchant mariner actions to determine cause, and to prevent future occurrences. The two types of investigations are Marine Casualty and Personnel Actions.

10.5.1 Marine Casualty Investigations

Marine casualty investigations are carried out for the following:

- Death of an individual.
- Serious injury to an individual.
- Material loss of property.
- Material damage affecting the seaworthiness or efficiency of the vessel.
- Significant harm to the environment.

10.5.2 Personnel Actions

Investigations are also conducted to determine if personnel actions by licensed or documented merchant mariners constitute one or more of the following:

- Misconduct
- Negligence

- Incompetence
- Violation of law or regulations

These investigations may result in a suspension and revocation action, which is an administrative process to determine the fitness of an individual to retain or continue to operate under the authority of his/her merchant mariner document or license. These hearings are not criminal proceedings but rather administrative in nature.

10.6 Sources of Authority

10.6.1 Definitions

Control - Legal means to exercise restraining or directing influence over other parties. It is any verbal or written law enforcement action by the COTP/OCMI/FOSC/FMSC, or their representatives, which requires compliance by responsible parties.

Deficiency - Any condition, operation, or act pertaining to a vessel or facility that fails to meet acceptable standards such as those established by applicable international conventions, regulations, industry standards, etc.

Detention - The imposition of specific port state operational controls, which prevent a foreign vessel's free movement within U.S. waters until that vessel is in substantial compliance with relevant safety and security standards.

Substandard – The inability of a vessel or facility to substantially meet minimum safety and security requirements

Violation - Any deficiency resulting from a failure to meet applicable U.S. statutory or regulatory requirements where sufficient evidence exists to initiate administrative, judicial, or criminal proceedings (including suspension and revocation hearings, civil penalty hearings, and criminal prosecution) as appropriate.

Criminal Violation - Any willing or knowing violation of Federal law or regulation. The penalties for criminal violations could include fines and/or imprisonment.

Civil Violation - All other violations of domestic law or regulation. This could include civil Class I or Class II civil penalty action. Civil penalties are monetary sanctions intended to be remedial rather than punitive

10.6.2 Legal Authority

There are two sources of legal authority for marine safety activities. They are:

1. U.S. laws [i.e., United States Code (USC)] as implemented by the Code of Federal Regulations (CFR).

U.S. laws are the written expressions of congressional intent and expectations.

2. International agreements accepted by the United States.

International agreements (normally in the form of treaties or conventions) are written expressions of an international organization's intent and expectations. An example of an international organization is the International Maritime Organization (IMO). An example of an international agreement is the Safety of Life at Sea Convention (SOLAS).

10.7 Control and Enforcement Actions

Coast Guard responsibility for carrying out our national law enforcement authorities requires the initiation of appropriate enforcement actions to minimize the risk to people, property, and the marine environment. Where evidence of a violation exists, administrative, judicial, or criminal enforcement actions should be initiated. The following is some of the most common enforcement actions used in the field to gain compliance by responsible parties.

10.7.1 Letter of Deviation

Certain commercial vessels that have specific non-operating navigation safety equipment (e.g., radar, echo depth sounder) must notify the nearest Sector Office of this non-operating equipment prior to entering or departing a U.S. port. The master of the vessel must request a deviation from these regulations so they may enter or depart the port. The Sector Office may grant the request by issuing a Letter of Deviation to the vessel. The Letter of Deviation is only good for the Sector that the vessel is transiting and will contain certain prescribed conditions relative to the safe transit of the vessel whether entering, departing, or moving from place to place while in port. Failure to comply with the conditions of the letter could result in civil or criminal penalties.

10.7.2 On the Spot Correction

When a minor deficiency is discovered during a vessel or facility inspection it may be corrected prior to completion of the inspection.

10.7.3 Civil Penalty Action

These are also known as violation reports. Civil penalties are punishments, generally in the form of fines, which can be brought against an offending vessel that fails to meet established applicable standards of safety and inspection. They

must be enacted according to established proceedings and with sufficient evidence of the vessel's noncompliance with the law.

The enforcement of civil penalties is an expensive and time-consuming effort for the Coast Guard. It is generally avoided except in cases of the most significant or habitual violations.

Generally, civil penalty actions are reserved for those violations that involve:

- major deficiencies
- evidence of serious neglect
- actions which have caused or contributed to the severity of a marine casualty
- the immediate and critical risk to lives, property, or the environment.

Minor violations are normally best handled by other enforcement alternatives, unless there is a lack of cooperative intent shown by the party, such as when a party has a high repeat rate for minor violations.

Civil penalties can only be enforced where there are U.S. statutes authorizing them. Civil penalties are not processed for breaking an international treaty (i.e., SOLAS) unless that treaty is codified as U.S. law with civil penalty provisions.

The Captain of the Port can initiate immediate enforcement actions such as detention of a vessel in port or ordering a vessel out of U.S. waters.

10.7.4 Letter of Warning

A Letter of Warning may be issued by the Captain of the Port in lieu of Civil Penalty action for minor violations of law or regulation by vessels, facilities and individuals. A Letter of Warning also documents noncompliance and may be taken into consideration when more stringent enforcement actions are considered for repeat offenses. A Letter of Warning is issued when notification to the violator is considered sufficient to deter future noncompliance. The determination to issue a Letter of Warning or to submit Civil Penalty Action rests with the Captain of the Port based on case development.

10.7.5 Letters of Undertaking (LOU)/ Surety Bonds

LOUs or surety bonds are an effective tool to impose strong port state control for both compliance and penalty collection purposes. A LOU/surety bond is often used in cases where a vessel violation report is to be submitted.

When a LOU/surety bond is requested, the only control provision available to ensure one is received is to request the Bureau of Immigration and Customs Enforcement (BICE) to withhold a vessel's clearance.

10.7.6 Suspension and Revocation (S & R) Proceedings

Suspension and Revocation (S & R) proceedings are administrative actions taken by the Captain of the Port against a U.S. merchant mariner's license or document to determine the fitness of an individual to retain or continue to operate under the authority of his/her Merchant Mariner document or license. These proceeding are submitted before a U.S. Administrative Law Judge (ALJ). S & R proceedings can be initiated for the following:

- Misconduct.
- Negligence.
- Incompetence.
- Violation of a Law or Regulation.
- Conviction of a dangerous drug law violation, use of a dangerous drug, or addiction to the use of dangerous drugs.

Based on the outcome of a particular S & R proceeding the mariner can have their credential(s) suspended for a period of time or revoked outright.

10.7.7 Vessel Control

Vessel Control is accomplished through the use of three primary authorities.

- Customs Hold.
- Captain of the Port Order.
- Interventions under International agreement.

10.7.8 Custom Hold

The Coast Guard may request the Bureau of Immigration and Customs Enforcement (BICE) to place a "Customs Hold" on a foreign vessel to prevent the vessel from leaving port until the Coast Guard is satisfied that the vessel has met all its obligations to the United States.

10.7.9 Captain of the Port (COTP) Orders

COTP Orders are issued in the interest of safety and security by reason of weather, visibility, increased security measures, other temporary hazardous circumstances, the condition of the vessel, or facility. A COTP Order can be given verbally, but must be followed up in writing. They must be directed to a specific vessel, facility, or individual and must be specific with respect to the actions expected of the person to whom it is directed. COTP Orders are valid only in the COTP area where issued and are typically issued to:

- Restrict or stop vessel or facility operations.
- Require specific actions to be taken.
- Deny a vessel entry to port until a deficiency is corrected.
- Detain a vessel in port.

10.8 Intervention under International Agreements

Interventions under international agreements are port state enforcement actions over foreign vessels taken on behalf of the Flag Administration. The Officer in Charge Marine Inspections, (OCMI), is expected to intervene when a foreign vessel is found substantially out of compliance with their international convention certificates. An intervention is initiated when the OCMI believes that one or more of the following has occurred:

- A failure to implement required security measures.
- The seaworthiness of the vessel is in question.
- The safety of the crew is in question.
- The vessel poses a threat to the environment.

10.8.1 Suspension, Termination, or Revocation of Permits and Certificates

The COTP may also suspend, terminate, or revoke certain permits and certificates, which could temporarily halt or suspend vessel or facility operations. These permits and certificate are:

- The waterfront facility general permit for handling dangerous cargo.
- The permit to handle designated dangerous cargo (i.e., explosives), which is issued to vessels or facilities by the Coast Guard.
- The hot-work permit that is issued to vessels and facilities by the Coast Guard.
- The Certificate of Adequacy (COA) that is issued to waterfront facilities that are designated to handle bulk liquid dangerous cargoes or designated as a reception facility.
- The Certificate of Inspection (COI) that is issued to U.S. vessels that meet the minimum safety and security requirements.

Vessels and facilities must be in compliance with the conditions of these permits and certificates as set forth in regulations. The COTP may take action by immediately suspending operations at a facility or on board a vessel that is not in compliance with the conditions of the permit or certificate.

10.8.2 Criminal Sanctions against Persons or Vessels

Certain violations normally handled through civil penalty procedures may be so

egregious that more severe sanctions are warranted such as when situations are discovered that involve willing and knowing violations of law or regulation. When these conditions are discovered they are referred through the Chain of Command.

10.8.3 Limited Access Areas (LAA)

Limited access areas (LAA) are used by the COTP to protect vessels, facilities, or the environment. There are six types of LAA used by the Coast Guard. Each is used for a different purpose depending upon the situation. The six types are:

- Safety zone
- Outer Continental Shelf (OCS) safety zone
- Deepwater Port (DWP) safety zone
- Security zone
- Restricted Waterfront Area
- Regulated Navigation Area

Limited access areas can be actively enforced by Coast Guard assets (cutters, boats, aircraft, and personnel) or passively enforced by regulation or other administrative notification.

10.8.4 Safety Zone

Safety zones are established in ports, waterways, and shore areas for safety, security and environmental protection. They protect structures, vessels, water and shore areas by controlling access to activities within the zone. Most safety zones limit access during response to an emergency and can be set for an indefinite period of time.

Safety zones can be established by the Sector Office or the COTP in response to some emergency situation and are usually temporary in nature.

10.8.5 Outer Continental Shelf (OCS) Safety Zone

The Outer Continental Shelf safety zone is limited to an area within 500 meters of artificial islands and fixed structures on the outer continental shelf. These features are used for the removal of minerals from the ocean bottom (i.e., offshore oil drilling platforms).

10.8.6 Deepwater Port (DWP) Safety Zone

Deepwater Port safety zones are specific to deepwater ports but provide the same protection previously discussed in safety zones. However, different laws and regulations cover this type of safety zone.

Note: A Deepwater Port is any fixed or manmade structure, other than a vessel, located beyond the territorial sea and off the coast of the United States. These ports are normally used for the loading or unloading of oil.

10.8.7 Security Zone

Security zones are limited access areas established to safeguard ports, harbors, territories, or waters of the United States from subversive acts by controlling access or movement of persons, vessels, and objects. These are used for national security interests rather than for strictly safety considerations.

Security zones are established based on a known or perceived threat to an asset in the port area. Therefore, they are normally enforced by armed Coast Guard personnel authorized to use deadly force, if necessary, to secure the asset. Because of this, Auxiliarists are not authorized to patrol Security Zones.

10.8.8 Restricted Waterfront Area

A Restricted Waterfront Area limits access to persons possessing identification credentials (i.e. Transportation Worker Identification Credential) suitable to the Commandant.

10.8.9 Regulated Navigation Area

Regulated Navigation Areas (RNA's) are water areas that require control of vessel operations to:

- Preserve the safety of the adjacent waterfront structures.
- Ensure safe and secure transit of other vessels.
- Protect the marine environment.

Each Sector establishes RNAs for permanent passive or active traffic management. Passive traffic management includes regulating a navigable area using signs, warning buoys/markers, and/or chart markers. A passive RNA may also be used to prohibit oil transfers in an anchorage area due to environmental concerns. Active Coast Guard traffic management utilizes a Vessel Traffic Service (VTS) or patrol craft.

Chapter Ten Review Questions

1. True or False?

Safety Zones protect structures, vessels, water and shore areas by controlling access to activities within the zone.

2. Vessel Control is accomplished through the use of three primary authorities.

- a. Customs Hold.
- b. Captain of the Port Order.
- c. Interventions under International agreement.
- d. All of the above

3. Merchant Mariner Documents are issued for all of the following except:

- a. Steward
- b. Tankerman
- c. Third Mate
- d. Ordinary Seaman

11.0 Federal Laws and Regulations

11.1 Definitions

Guidance - A source of information one refers to or consults.

Authority - The right and power to command, enforce laws, exact obedience, determine, or judge. A public agency or corporation with administrative powers in a specified field.

Law- A rule established by authority, society, or custom. Implies imposition by a sovereign authority and the obligation of obedience on the part of all subject to that authority.

Policy – A program generated guideline that clarifies the intent of a law or regulation and provides enforcement guidance.

Regulation - A specific requirement to be met which ensures compliance with the law.

United States Code (USC) - A publication of Federal laws organized by subject matter.

11.2 Legal and Regulatory Publications

There are three types of federal legal and regulatory publications frequently used by marine safety personnel. They are:

- United States Code (USC)
- Code of Federal Regulations (CFR)
- Federal Register (FR)

11.2.1 United States Code (USC)

The USC is a subject matter arrangement of the U.S. law. As new laws are passed, they are codified (filed) within the relevant portion of the code, using a structured alphanumeric system.

These subject matters are arranged into 50 numbered titles. Titles covering the Federal laws most commonly enforced by the Coast Guard are:

- 14 USC - Coast Guard
- 33 USC - Navigation and Navigable Waters
- 40 USC - Protection of Environment
- 46 USC - Shipping

- 49 USC - Transportation

11.2.2 Code of Federal Regulations (CFR)

At times, U.S. laws are written in broad language. The implementing agency, such as the Coast Guard, will create requirements that more clearly outline the intent of the law. These requirements are called Federal Regulations.

These Federal Regulations are published into 50 titles known as the Code of Federal Regulations (CFR). Titles covering regulations most commonly enforced within marine safety are:

- 33 CFR – Navigation and Navigable Waters
- 40 CFR – Protection of Environment
- 46 CFR – Shipping
- 49 CFR -- Transportation

11.2.3 Federal Register

The purpose of the Federal Register is to provide a uniform system for informing the public of proposals and changes to the CFR. To change the CFR, a proposal must be publicly announced and an opportunity must be provided for public comment on that proposal.

11.3 Coast Guard Guidance.

To conduct the marine safety activities previously discussed, not only do you need knowledge of the legal authority, you also need guidance to interpret the intent of the authority.

There are three primary types of Coast Guard policy references most frequently used by marine safety personnel. They are:

- Marine Safety Manual (MSM)
- Navigation and Vessel Inspection Circulars (NVICS)
- Program-specific Policy Letters

11.3.1 Marine Safety Manual

The MSM is a Commandant Instruction containing the primary policy guidance for marine safety. The MSM is used to:

- Make decisions relating to marine safety subject matter.
- Interpret regulations.
- Find guidance on how the Commandant wants things done.
- Keep marine safety practices and procedures consistent.

Also see section 2.4.

11.3.2 Navigation and Vessel Inspection Circulars (NVICS)

NVICS are publications issued by Commandant (G-M) that are distributed to the maritime industry as well as to the field. They provide any or all of the following on specific marine safety issues:

- Interpretation of regulations, standards, or international agreements
- Explanation of procedures
- Enforcement policy

NVICS are chronologically numbered by issuing date within 1 calendar year (e.g. NVIC 1-93 was the first issue in 1993).

11.3.3 Program-specific Policy Letters

Marine safety policy and guidance is also promulgated in the form of policy letters.

Chapter Eleven Review Question

1. There are three types of federal legal and regulatory publications frequently used by marine safety personnel. They are _____, _____ and _____.

- a. United States Code (USC), Code of Federal Regulations (CFR) and Federal Register (FR).
- b. United States Code (USC), Marine Safety Manual (MSM) and Navigation and Vessel Inspection Circular (NVICS).
- c. Regulation, Policy and Guidance.
- d. All of the above.

12.0 Occupational Safety and Health

Special Note: Auxiliarists are prohibited from taking part in many of the following activities or using much of the described equipment. The information is provided for educational purposes and does not constitute permission to participate in these activities or use the equipment.

12.1 Framework

The Coast Guard's occupational safety and health program provides for the protection and well being of marine safety personnel. The following provide the framework for this program.

12.1.1 Marine Safety Manual

The Marine Safety Manual, Volume I, Chapter 10, details requirements for a unit safety and health program and provides specific information in three areas with respect to health and safety:

- Marine Safety Command Organization and Responsibilities
- Marine Safety Field Hazards
- Controlling Field Hazards

12.1.2 Medical Manual

The Occupational Medical and Evaluation Program (OMSEP) is contained in COMDTINST M6000.1B, Chapter 12. This program is devoted to maintaining and improving the health of Coast Guard personnel. The objective of this program is to document the baseline health of individuals and to monitor their status periodically with an emphasis on the prevention, diagnosis, and follow-up of illness and injuries caused by the work environment.

12.1.3 Respiratory Protection

Technical Guide: Practices for Respiratory Protection, COMDTINST M6260.2C provides information necessary for the safe use of respiratory protection devices.

12.1.4 Benzene Occupational Exposure Standard

The Benzene Occupational Exposure Standard has been established by the Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.1028. COMDTINST 6260.25 promulgates the requirements of this standard and applies to all Coast Guard operations involving occupational exposure to benzene. This policy for Marine Safety activities has been incorporated in Marine Safety Manual Vol. I, Chapter 10, Appendix G.

12.1.5 Safety and Environmental Health Manual

Safety and Environmental Health, COMDTINST M5100.47 sets forth the Coast Guard safety and environmental health policy, program elements, responsibilities and standards that apply to all Coast Guard units. It contains chapters on safety and health topics common to all Coast Guard missions such as:

- Safety and occupational health programs.
- Mishap reports.
- Sanitation.
- Radiation.

12.1.6 Pregnancy and the Coast Guard

Pregnancy in the Coast Guard, COMDTINST 1900.9 establishes administrative guidance for the management and protection of the health of pregnant members. It contains information on physical and chemical agents that are potentially dangerous to the woman and her unborn child and establishes restrictions on her exposures.

12.2 Command Organization and Responsibilities

The safety and health organization within the marine safety command must foster the proper attitude with regard to "safety."

12.2.1 Commanding Officer

The Commanding Officer (CO) is responsible, by tradition and regulation, for the protection of personnel assigned to the command. The CO determines the goals and priorities at the unit along with promoting a safe and professional discharge of unit activities.

12.2.2 Executive Officer (Safety Officer)

The Executive Officer (XO) is the command's Safety Officer, whose duties include implementation of the CO's safety and occupational health policy. The XO is also responsible for day-to-day mission performance, command efficiency, and supervision of Dept. Heads.

12.2.3 Safety and Occupational Health Coordinator (SOHC)

The Safety and Occupational Health Coordinator (SOHC) develops and administers the unit's comprehensive program for the Safety Officer.

12.2.4 Safety Petty Officer (SPO)

The Safety Petty Officer (SPO) is assigned to assist the SOHC with the maintenance of equipment and records. This person should be familiar with the responsibilities of the SOHC and be able to perform these duties when the coordinator is absent. A Safety Petty Officer is only assigned to those units that have 40 or more members.

12.2.5 Respiratory Protection Administrator (RPA)

Units, which have respiratory protection must have a written respiratory protection program and be managed by the RPA.

12.2.6 Occupational Medical Surveillance and Evaluation Program (OMSEP) Coordinator

The Occupational Medical Surveillance and Evaluation Program (OMSEP) Coordinator is responsible for updating the roster of OMSEP enrollees and maintaining the unit's OMSEP personnel tracking reports, ensuring OMSEP examinations are completed in a timely fashion, and ensuring all available exposure data is available to the medical officer at the time of the OMSEP examination.

12.2.7 Safety and Environmental Health Officer (SEHO)

The District/Integrated Support Command Safety and Environmental Health Officer's (SEHO) primary duty is to support and ensure compliance with safety and occupational health (SOH) programs at field commands **within** their zone of responsibility.

12.3 Occupational Medical Surveillance and Evaluation Program

The Occupational Medical Surveillance and Evaluation Program (OMSEP) refers to a physical examination program established to monitor the health of Coast Guard personnel working in jobs designated as having a high health risk potential upon exposure to physical/chemical/biological hazards.

The OMSEP is designed to identify work related diseases or conditions, through baseline and periodic examinations, at a stage when modifying the exposure or providing medical intervention could potentially arrest disease progression or prevent re-occurrences.

12.3.1 Enrollment in OMSEP

A person is considered "occupationally exposed" for OMSEP enrollment purposes if a noise exposure or hazardous condition is likely to occur thirty or more days per year. Personnel (including Auxiliarists) will be enrolled in the OMSEP if both of the following criteria are met:

Personnel are identified as occupationally at risk/exposed to hazardous chemicals or physical agents at levels documented or reasonably determined to be above the CG Medical Surveillance Action Level (MSAL) for that hazard as defined in the Medical Manual, Ch. 12.

Personnel actively engaged for thirty or more days per calendar year in the following occupations will be enrolled in OMSEP, unless an IH investigation determines individuals are not exposed to toxic chemicals or physical hazards: resident inspectors, pollution investigators, marine safety (general), port safety (general), vessel inspectors or marine investigators, and fire fighters.

12.3.2 Program Requirements

"Occupationally exposed" personnel shall be identified, enrolled in OMSEP and be given basic and periodic medical examinations for the duration of their occupational exposure.

- Personnel "occupationally exposed" to known human carcinogens shall remain in the program for the duration of their Coast Guard career.
- Personnel "occupationally exposed" to benzene, asbestos, lead, or noise shall be enrolled in the special programs designed for these exposures.

12.4 Marine Safety Field Hazards

Identifying safety and health hazards and estimating the risk they pose to personnel ("risk assessment") is the first crucial step in developing an effective safety and health program. There are ten common safety hazards that are likely to be encountered in the marine safety field. These ten hazards can be grouped into three general categories - physical hazards (including atmospheric hazards); chemical hazards; and biological hazards. Additional hazards are likely to be encountered in the field other than those mentioned. All personnel must be aware of the surrounding at all times!

12.4.1 Physical Hazards

- Explosion
- Oxygen Deficiency
- Radiation (Ionizing and Non-Ionizing)
- Safety Hazards (Slips/Trips and Falls)

- Electrical Hazards
- Noise
- Thermal Stress (Heat and Cold)

12.4.1.1 Atmospheric Hazards

The three general atmospheric hazards encountered in the marine safety field can be classified as oxygen deficiency and enrichment, explosion and toxicity hazards.

A. Oxygen deficiency and Oxygen enrichment hazards.

(normal condition is 20.8% oxygen).

1. Oxygen deficiency (less than 19.5 %) can be caused by:

- Displacement of oxygen by other gases and vapors such as inert gases, or evaporating liquids.
- Rusting metals, such as scrap iron or tank wall corrosion.
- Organic decay (rotting fruit, molasses, edible oils).
- Curing paints.

2. Oxygen enrichment (greater than 22%) can pose a potential explosion hazard (combustible/flammable hazards).

B. Explosion hazard.

Various cargo and non-cargo chemical agents such as flammable liquids, paints, solvents, and hydrogen sulfide.

Concentration of explosive/flammable vapors must be less than 10% of Lower Explosive Limit (LEL) for entry into a work area. Concentrations 10% or more of the LEL poses an explosion hazard.

The level of concern for Coast Guard personnel for explosion hazard is 10% of the LEL or greater.

Note: LEL is the lowest concentration of gas or vapor in which burning will take place.

C. Toxicity hazard.

Toxicity hazard may result from:

Gases, vapors, and particles generated from various cargo and non-cargo chemical agents such as benzene vapors, chlorine gas, and asbestos particles.

Occupational exposure levels have been established by several agencies and organizations. The two standards used by the Coast Guard are:

- Permissible Exposure Limits (PEL) - OSHA.
- Threshold Limit Values (TLV) - American Conference of Governmental Industrial Hygienist - (ACGIH).

The level of concern for Coast Guard personnel for toxicity hazard is greater than the PEL/TLV value.

12.4.2 Chemical Hazards

There are two types of chemical agents that may pose significant health hazards:

A. Cargo Chemical Agents:

Various cargos posing chemical hazards are found in 46 CFR Subchapters D and O and MSM, Vol. 1, Chapter 10.

The following are examples of **cargo** chemical agents:

- Liquified or compressed gases (i.e. chlorine, ammonia)
- Benzene and products containing benzene
- Acrylonitrile
- Carbon Tetrachloride
- Butadiene
- Tetraethyl Lead
- Formaldehyde solutions
- Vinyl Chloride

B. Non-Cargo Chemical Agents:

Other chemicals not carried as cargo may also pose a hazard while conducting marine safety activities.

The following are examples of **non-cargo** chemical agents:

- Asbestos
- Hydrogen Sulfide
- Carbon Monoxide
- Welding gases and fumes
- Painting and solvent application (including paint lockers)
- Fumigants
- Sandblasting (silica)

12.4.3 Biological Hazards

Biological Hazards - includes any virus, bacteria, fungus, parasite, or living organism that can cause a disease in human beings.

12.5 Evaluating and Controlling Field Hazards

Whether you're on a pollution response or conducting a vessel boarding you will encounter numerous safety hazards. The key to working safely in the marine environment is "Recognition" - you must be able to recognize the hazard before you can evaluate the severity or implement any controls.

Once a hazard has been recognized, it must be evaluated to determine if work may proceed in that area (especially confined spaces). Atmospheric hazards can be evaluated using atmospheric measurement devices to determine if the atmosphere is toxic, explosive, oxygen deficient or oxygen enriched.

12.5.1 Hazard Control Strategies

Control strategies for health hazards are often required by regulations. Controls can be grouped into three categories.

- Engineering Controls
- Administrative Controls
- Personal protective equipment (PPE)

12.5.2 Engineering Control Strategies

Engineering Controls include such measures as ventilation, barriers, and enclosures.

- This is the first choice for controlling a hazard because effective engineering controls will eliminate/minimize the hazard.
- Ventilation: Continuous, mechanically forced ventilation is normally required for 3 air changes (plus 15 minutes), prior to and during non-emergency situations, which are listed in MSM Vol. I, Chapter 10 (i.e., confined space entry).
- As we often don't have control over the equipment that we're working around, in many cases engineering controls are not an option so we need to use safe work practices.

12.5.3 Administrative Control Strategies

Administrative controls include measures such as safe work practices (SWP). Safe work practices are of utmost importance with any control strategy. These practices shall be developed for hazardous operations and hazardous agents (chemical, physical, and biological), and followed by all unit personnel.

Note: Appendix A in MSM Vol. I, Chap. 10 outlines SWPs commonly used at marine safety field units.

12.5.4 Personal Protective Equipment (PPE)

Appropriate engineering or administrative controls should be in place before resorting to personal protective equipment (PPE). PPE includes:

- Hardhat.
- Safety shoes.
- Hearing protection.
- Eye protection.
- Basic skin protection (gloves, sunscreen, barrier cream).
- Chemical splash equipment.
- Atmospheric monitoring equipment/alarms.
- Respiratory protection equipment.
- Emergency Escape Breathing Apparatus (EEBA).
- Personal floatation device (PFD).

12.6 Confined Space Safety

Understanding the Coast Guard's policy and federal regulations regarding confined space safety is imperative to ensuring the safety of personnel working in such areas.

12.6.1 Definitions

Confined Space - A confined space is a compartment of small size or limited access such as a double bottom tank, cofferdam, or other spaces, which by its confined nature can readily create or aggravate a hazardous environment. A confined space can be identified by any one of the following:

- Limited openings for entry and exit (access/egress).
- Unfavorable/inadequate ventilation.
- Not designed for continuous human occupancy.

Entry - "action by which a person passes through an opening into a space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into a

space." (29 CFR 1915.11)

Hot Work - Hot work includes any riveting, welding, burning, cutting, or other fire or spark producing operation.

Note: Hot work includes sandblasting operations.

Inerted - Requires that one of the following procedures must be completed in the space/compartment designated:

- Use of nonflammable gas (i.e., carbon dioxide, nitrogen).
- Reduce oxygen content in space to less than 8% or 50% of the amount to support combustion; whichever is less.
- Flood with water and do hot work below water level.

Atmospheric Hazards - Atmospheric hazards found in confined spaces can be classified as:

- Oxygen deficiency or enrichment hazards.
- Explosive hazards (combustible/flammable hazards).
- Toxicity hazards.

12.6.2 Confined Space Entry Policy

The Commandant's policy states: Coast Guard Marine Safety personnel shall not enter "regulated confined spaces" (see definition below) unless the spaces have been tested and designated "Safe for Workers" by a Certified Marine Chemist. ***“Auxiliarists are prohibited from entering confined spaces even if tested and designated Safe for Workers.”***

A Certified Marine Chemist is an individual certified by the National Fire Protection Agency (NFPA). A list of Certified Marine Chemists is published by the NFPA in their Annual Marine Chemist directory.

A Marine Chemist inspects confined spaces and issues certificates attesting to the safety of the space for entry by personnel. The Marine Chemist also certifies what type of work may be conducted within the space (i.e., hot work).

12.6.3 Regulated Confined Spaces

Regulated confined spaces include:

Cargo spaces, or other spaces containing or having last contained toxic, combustible, or flammable liquids or gases in bulk (i.e., cargo tanks, fuel tanks).

- Spaces immediately adjacent to those described above (i.e., voids).

- Compartments that have been sealed.
- Spaces that have been coated (preservatives) and closed.
- Non-ventilated compartments that have been freshly painted.
- Cargo spaces containing cargoes that absorb oxygen (i.e., scrap metal, fresh fruit, any organic material that may decay).
- Double bottoms or sides.
- Pump rooms.
- Shipping containers.

Note: The Marine Safety Manual Vol. I, Chapter 10, Appendix A contains detailed Safe Work Practice Requirements for "regulated confined spaces."

12.6.4 Ventilation

Continuous, mechanically forced air ventilation is generally the best method to control hazards associated with confined space entry.

When forced air ventilation is available, ventilation is normally required for at least 3 air changes and at least 15 minutes prior to entry into any "regulated confined space." Ventilation shall also be maintained during entry unless overriding safety considerations are present.

When forced air is not available, natural ventilation is required, normally for at least 15-30 minutes prior to entry into any "regulated confined space."

12.6.5 Issuance of a Certificate for a Confined Space

The following requirements must be met prior to issuance of a Marine Chemist's certificate for a confined space:

Inspection and issuance of the certificate must meet standards IAW NFPA 306.

The Marine Chemist shall personally determine conditions of each space. (Must "whenever possible" physically enter each space or compartment and conduct a visual inspection.)

The Marine Chemist's determination shall include:

- An internal inspection of each space.
- Testing of each space.
- Three previous cargoes carried (if cargo/fuel tank).
- Nature and extent of work.
- Date and time of inspection.
- Oxygen content, % of LEL, and air concentration of any toxics identified during the inspection.

Note: The Marine Chemist's instruments must be calibrated before and after each day's use (calibration should be under field conditions -not in the office).

12.6.6 Confined Space Standard Safety Designation

According to NFPA 306, a confined space may be classified into the following "Standard Safety Designations":

- Safe for Workers
- Not Safe for Workers
- Enter with Restrictions
- Safe for Hot Work
- Not Safe for Hot Work
- Safe for Limited Hot Work

These designations identify the degree of safety associated with the confined space and which type of operations (if any) can safely be conducted within the space. The designations above may be combined:

Example: "Safe for Workers/Safe for Hot Work" – This is a typical example in that "standard safety designations" normally combine a "worker" designation with a "hot work" designation.

12.6.7 Safe for Workers

For the designated confined space, the criteria for the designation "Safe for Workers" is as follows:

- Oxygen content must be at least 19.5% and not greater than 22%
- Flammable materials must be below 10% of the LEL
- Toxic materials are within "permissible" concentrations (below the lower of the TLV/PEL)
- Residues are not capable of producing a toxic atmosphere

If any of the above conditions do not exist, then the designations "Not Safe for Workers" or "Enter with Restrictions" will be used.

12.6.8 Not Safe for Workers

Personnel shall not be allowed entry.

This designation means that one or more of the criteria required for "Safe for Workers" are not evident.

12.6.9 Safe for Hot Work

For the designated confined space, the criteria for this designation is as follows:

- Oxygen content not greater than 22%.
- Flammable materials below 10% of the LEL.
- The space should be sufficiently cleaned so that any residues are not capable of producing concentrations greater than 10% of the LEL in the presence of hot work while the certificate is being maintained.
- All adjacent spaces (including diagonals) are sufficiently cleaned or inerted to prevent the spread of fire.

If any of the above conditions do not exist, then the designation "Not Safe for Hot Work" must be used.

12.7.0 Not Safe for Hot Work

Hot work is not permitted.

This designation means that one or more of the criteria necessary for the "Safe for Hot Work" designation does not exist.

Chapter Twelve Review Questions

1. Which is not considered a type of atmospheric hazard encountered in the marine safety field?

- a. Oxygen deficiency and enrichment
- b. Noise
- c. Explosion
- d. Toxicity

2. True or False?

A person is considered "occupationally exposed" for OMSEP enrollment purposes if a noise exposure or hazardous condition is likely to occur 30 or more days per year.

3. The two types of chemical hazards are _____ and _____.

- a. Oxygen deficiency and Oxygen enrichment hazards,
- b. Welding gases and fumes.
- c. Cargo and non-cargo chemical hazards.
- d. All of the above are considered a type of chemical hazard.

13.0 Conduct and Ethics

13.1 Standards of Ethical Conduct

If you ever have questions concerning ethics, you should seek advice from a Coast Guard ethics official. For marine safety personnel, ethics advice usually begins with your supervisor who should seek advice from the Chain of Command and the District Legal Officer. District Legal Officers, as Deputy Ethics Officials are responsible for being available to discuss, analyze, and if necessary to take action to remedy, any matter relating to standards of conduct and conflicts of interest situations. As a general rule if you ever feel you are or may have been engaged in a questionable unethical situation you should contact your Chain of Command and seek guidance from a Coast Guard ethics official. You should be prepared to give full disclosure of all relevant circumstances in question.

13.2 Professionalism

Being a professional does not only mean knowing your job. Being a Coast Guard professional means more than that. Understanding appearance, attitude, objectivity, and demeanor and applying these aspects of professionalism on the job helps set the tone for proper ethical conduct.

13.2.1 Appearance

When you meet people, it's your appearance that is first noticed. Like any other military or law enforcement organization, the Coast Guard requires us to look a certain way. Generally these requirements are made known to all Coast Guard members through policy and good military practice. Marine safety field units are no different. Your Commanding Officer will require you to wear certain Coast Guard uniforms while performing your assigned duties. Good appearance is usually perceived as the sign of a confident professional: a person less likely to be compromised.

13.2.2 Attitude

Another thing perceived as being a sign of a professional is attitude. A positive attitude about your assigned job shows people that you care about what you do. Bad attitudes will show people you don't agree with what you're doing, thereby making people you deal with less likely to take you seriously, which could lead to a compromising situation.

In the marine safety field, when you are not taken seriously because of a bad attitude, you will not communicate well with industry. This could have serious consequences that could cause harm to a person, a vessel, a

facility, or even a port area.

13.2.3 Objective

Being objective is another part of being a professional. Many times you will have to use objectivity to solve situations or problems. This means your decisions should be based on the facts of the situation and not be affected by your personal feelings or prejudice.

You will deal with many commercial maritime interests in the marine safety field. We must treat every interest the same using the code of the law and applicable Coast Guard standards as our guide. Doing this helps us regulate every interest in the same manner and does not show favoritism or involve our personal feelings.

13.2.4 Demeanor

Finally, your professional demeanor or behavior when dealing with on the job confrontations or conflicts is put to the test many times in the marine safety field. How do you handle stressful situations? How do you handle someone screaming at you? You should think about these questions because they could happen to you. A real professional would know how to handle these situations. A real professional would know to use all his or her knowledge, skills, and training to control a stressful situation. A real professional would know to remain calm and use common sense when dealing with a screaming individual until that individual is ready to talk rationally.

Real professionals are always ready to use their appearance, attitude, objectivity, and demeanor as tools for proper ethical conduct. Once properly used, your job will be simplified.

Chapter Thirteen Review Questions

1. Real professionals are always ready to use their _____, _____, _____ and _____ as tools for proper ethical conduct.
 - a. appearance, attitude, objectivity, and demeanor
 - b. training, education, connections and experience
 - c. both a and b.
 - d. neither a nor b.

Appendix A.

The Coast Guard

Headquarters Organization - <http://www.uscg.mil/top/units/org.asp>

Historians Office - <http://www.uscg.mil/history/>

Missions - <http://www.uscg.mil/top/missions/>

U.S.S Indianapolis

[http://en.wikipedia.org/wiki/USS_Indianapolis_\(CA-35\)](http://en.wikipedia.org/wiki/USS_Indianapolis_(CA-35))

<http://www.ussindianapolis.org/>

<http://www.history.navy.mil/faqs/faq30-1.htm>

<http://www.ussindianapolis.us/>

The Sultana

<http://www.rootsweb.com/~genepool/sultana.htm>

[http://en.wikipedia.org/wiki/Sultana_\(steamboat\)](http://en.wikipedia.org/wiki/Sultana_(steamboat))

http://news.nationalgeographic.com/news/2001/05/0501_river5.html

<http://www.infoplease.com/spot/sultana1.html>

<http://www.bitsofblueandgray.com/june2007.htm>

<http://www.civilwarstlouis.com/boatburners/index.htm>

End of Chapter Questions

Chapter Two Review Questions

1. True or False?

The permitted ocean dumping of chemicals, sewage sludge, dredged material, etc. is legal.

Answer: True

2. The legal responsibility of licensed officers for loss of life occasioned by their misconduct, negligence, or inattention to duty was first recognized in the:

- a. Steamboat Inspection Service Act of 1838.
- b. Ports and Waterways Safety Act of 1972
- c. Espionage Act of 1917
- d. Magnuson Act of 1950.

Answer: a

3. MARPOL 73/78 contains regulations aimed at preventing and minimizing pollution from ships in which of the following areas?

- a. oil and noxious liquid substances in bulk,
- b. air pollution and sewage and garbage from ships,
- c. both a and b
- d. neither a nor b

Answer: c

4. Section 1.J of the Marine Safety Manual, Volume I is entitled _____.

- a. Marine Safety Program
- b. Bridge Administration Program
- c. Port Safety and Security Program
- d. Coast Guard Recreational Boating Safety (RBS) Program.

Answer: d

5. Force Majeure is defined in Volume 6, Section 1.F of the MSM as:

- a. The power a nation has to enforce its territorial waters. Also known as eminent domain.
- b. The ability of a ship to travel freely on the open oceans of the world. Also known as the common law “right of free passage”.
- c. The condition of such severity that it threatens the loss of the ship unless immediate action is taken to enter the territorial waters of another nations without approval. Also known as emergency entry.
- d. The ability of a ship to travel throughout the world, knowing international law will legally support its passage.

Answer: c

6. CFR Title 33 covers _____; CFR Title 46 covers _____, and CFR Title 49 covers _____ respectively.

- a. Transportation, Marine Safety and Environmental Protection, Shipping.
- b. Navigation and Navigable Waters, Marine Safety, Environmental Protection.
- c. Navigation and Navigable Waters, Shipping, Transportation
- d. Shipping, Navigation and Navigable Waters, Transportation

Answer: c

Chapter Three Review Questions

1. Regional Exam Centers:

- a. are maritime training schools.
- b. are field audit units.
- c. assist merchant mariners with re-licensing.
- d. are traveling exam team headquarters.

Answer: c

2. True or False?

CFR 46 restricts Auxiliary members from law enforcement activities and HAZMAT involvement.

Answer: True

3. CFR 46 Section 27.101 defines a towing vessel as a commercial vessel engaged in, or intending to engage in any combination of

_____.

- a. pulling, pushing, or hauling alongside.
- b. pulling or pushing another vessel.
- c. CFR 46 does not contain a towing vessel definition.
- d. none of the above.

Answer: a

Chapter Four Review Questions

1. True or False?

Oil fingerprinting is a field technique that matches pollutant with polluter by tracing the exact source of oil spills, thereby not allowing the polluter to continue its voyage and escape liability for the clean up.

Answer: False

2. Failure of a vessel to carry a valid _____ results in automatic detainment of the vessel until the National Pollution Funds Center can be contacted.

- a. Certificate of Inspection (CIO)
- b. Certificate of Licensed and unlicensed merchant mariners
- c. Certificate of Financial Responsibility (COFR)
- d. none of the above.

Answer: c

3. True or False?

Financial responsibility requirements tend to prevent unscrupulous and/or financially unsound vessel or facility owners or operators from entering or operating in United States waters or the Outer Continental Shelf (OCS).

Answer: True

4. CERCLA legislation is also known as: _____.
- a. “taxpayers safety net”
 - b. “Marine industry clean-up” legislation.
 - c. EPA “priority legislation”.
 - d. “Superfund”.

Answer: d

Chapter Five Review Questions

1. True or False?

The penalties for failure to comply with the Mandatory Ballast Water Management Requirements found at <http://www.uscg.mil/hq/cg5/cg522/cg5224/ans.asp> can be a fine up to \$40,000 per day.

Answer: False.

2. The National Marine Debris Monitoring program had as its goals to answer which of the following questions?
- a. Is the amount of debris on our coastlines increasing or decreasing?
 - b. What are the major sources of this debris?
 - c. both a and b.
 - d. neither a nor b.

Answer: c

3. True or False?

All ships flagged under countries that are signatories to MARPOL are subject to its requirements, regardless of where they sail, and member nations are responsible for vessels registered under their respective nationalities.

Answer: True

4. The 100th Meridian Initiative is a cooperative effort between _____, _____ and _____ to prevent the westward spread of zebra mussels and other aquatic nuisance species in North America.

- a. fish and game, wildlife and parks agencies
- b. state, provincial, and federal agencies
- c. city, county and federal agencies
- d. none of the above

Answer: b

Chapter Six Review Questions

1. The _____ (as defined in 33 CFR Section 2.30) means the waters seaward of and adjacent to the territorial sea, not extending beyond 200 nautical miles from the territorial sea baseline, as recognized by the United States.

- a. exclusive economic zone
- b. national territorial waters
- c. both a and b
- d. Neither a nor b

Answer: a

2. Conviction of interference with or damage to Aids to Navigation (as defined in 33 CFR Sec 70.05-5) shall be punished by a fine not to exceed_____.

- a. \$500
- b. \$1000
- c. \$2500
- d. \$4500

Answer: c

Chapter Seven Review Questions

1. M.O.M. is an acronym for:

- a. Marine Officer Majority
- b. Maritime Observer manners
- c. Maritime Observation Mission
- d. None of the above.

Answer: c

2. True or False

Auxiliarists participating in MOMs may assist in the cleanup of chemical spills when approved by the Division Commander.

Answer: False

Chapter Eight Review Questions

1. True or False?

States have united in a national organization of State Marine Safety Administrators to promote stronger and more uniform state laws.

Answer: False

2. The purpose of the Coast Guard _____ is to improve the safety of the recreational boating public by reducing injuries and deaths on the nation's waterways.

- a. Marine Safety program
- b. Recreational Boating Safety (RBS) program
- c. Environmental Protection program
- d. Steamboat Inspection Service

Answer: b

3. The four principles accepted by all Boat Responsibly partners are:
- a. Wear a life jacket; and Never boat under the influence;
 - b. Take a boating safety course and Get a free Vessel Safety Check (VSC).
 - c. both a and b
 - d. Neither a nor b

Answer: c

Chapter Nine Review Questions

1. The Coast Guard is charged with the preparation of area contingency plans for _____ and _____ response for each of its local areas of responsibility (AORs).
- a. chemical spill and fire prevention
 - b. water and air pollution
 - c. oil pollution and hazardous material
 - d. none of the above.

Answer: c

2. Areas of management weaknesses in earlier incidents resulted in The Incident Command System (ICS) being developed. Some of these areas of weakness corrected by ICS were:
- a. Lack of accountability and poor communication.
 - b. No method to integrate interagency requirements and overloaded Incident Commanders.
 - c. both a and b
 - d. neither a nor b.

Answer: c

Chapter Ten Review Questions

1. True or False?

Safety Zones protect structures, vessels, water and shore areas by controlling access to activities within the zone.

Answer True.

2. Vessel Control is accomplished through the use of three primary authorities.
- a. Customs Hold.
 - b. Captain of the Port order.
 - c. Interventions under International agreement.
 - d. All of the above

Answer d.

3. Merchant Mariner Documents are issued for all of the following except:

- a. Steward
- b. Tankerman
- c. Third Mate
- d. Ordinary Seaman

Answer c.

Chapter Eleven Review Questions

1. There are three types of federal legal and regulatory publications frequently used by marine safety personnel. They are _____, _____ and _____.

- a. United States Code (USC), Code of Federal Regulations (CFR) and Federal Register (FR).
- b. United States Code (USC), Marine Safety Manual (MSM) and Navigation and Vessel Inspection Circular (NVICS).
- c. Regulation, Policy and Guidance.
- d. All of the above.

Answer a.

Chapter Twelve Review Questions

1. Which is not considered a type of atmospheric hazard encountered in the marine safety field?

- a. Oxygen deficiency and enrichment
- b. Noise
- c. Explosion
- d. Toxicity

Answer b.

2. True or False?

A person is considered "occupationally exposed" for OMSEP enrollment purposes if a noise exposure or hazardous condition is likely to occur 30 or more days per year.

Answer True.

3. The two types of chemical hazards are _____ and _____.

- a. Oxygen deficiency and Oxygen enrichment hazards,
- b. Welding gases and fumes.
- c. Cargo and non-cargo chemical hazards.
- d. All of the above are considered a type of chemical hazard.

Answer c.

Chapter Thirteen Review Questions

1. Real professionals are always ready to use their _____, _____, _____ and _____ as tools for proper ethical conduct.

- a. appearance, attitude, objectivity, and demeanor
- b. training, education, connections and experience
- c. both a and b.
- d. neither a nor b.

Answer: a