Safety Management System Manual

Developed by: Commandant (G-MSO-2)
U.S. Coast Guard

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Chapter 1
Introduction

Introduction

This manual is the exclusive property of ___{Company Name}___. It should not be removed from any of ___{Company Name}____'s ships or Company premises, neither should its contents be copied or conveyed to anyone not employed by ___{Company Name}____ without the permission of the Managing Director.

Purpose

The purpose of this manual is to describe ____{Company Name}___'s policy in developing, implementing, and maintaining the functional elements of __{Company Name}_____'s Safety Management System (SMS). __{Company Name}_____'s SMS is based on the requirements of the International Safety Management (ISM) Code and 33 CFR 96.

Contents

The contents of this manual provides an overview of ___{Company Name}____'s policy on safety and environmental protection. In particular, this manual is for the use of the following categories of personnel:

- vessel masters,
- officers,
- other seagoing personnel, and
- onshore management.

SMS Documentation

___{Company Name}___'s SMS documentation is listed in the lines below:

_____

_____

_____

_____

Copies of the SMS documentation are controlled and only made available to non-Company personnel on instructions from the ____{Person Responsible}_____.

Chapter 2
Safety and Environmental Protection Policy

Introduction

Safety and environmental protection are of critical importance to ___{Company Name}___. The Company is committed to conducting its operations to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to property and the environment, in particular the marine environment. The Company seeks to develop, implement, and maintain standards of safety and environmental protection in line with what is considered reasonable and practical.

Policy Objectives

The specific objectives of the Company's safety and environmental protection policy are to:

- provide for safe practices in ship operation;
- list safeguards against all identified risks;
- provide a safe working environment;
- prevent human injury or loss of life;
- avoid damage to property and the environment, in particular, the marine environment; and
- continue to improve the safety management skills of shipboard and shore-based personnel including preparing for emergencies related both to safety and environmental protection.

Implementation

In order to achieve the above objectives the Company has adopted a safety and environmental protection policy that seeks to ensure:

- compliance with relevant mandatory rules and regulations; and
- recognition of applicable codes, guidelines, and standards recommended by the International Maritime Organization (IMO), relevant flag States, classification societies, and maritime industry organizations.

Functional Elements

The Company has included the following functional elements in the development, implementation, and maintenance of the safety and environmental protection policy:

- oil pollution prevention equipment and procedures;
- instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag state legislation;
- defined levels of authority and lines of communication between and amongst shore and shipboard personnel;
- procedures for reporting accidents and non-conformities within the provisions of the ISM Code;
- procedures to prepare for and respond to emergency situations; and
- procedures for internal audits and management reviews.

Company Commitment

{Company Name} has developed and implemented a written safety management system that applies to all levels of the Organization, including:

- all shore-based locations;
- all vessels; and
- all those personnel who are directly involved or employed at these locations and on all vessels.

In order to meet our objectives in safety and environmental protection, the Company requires total commitment from all personnel who are directly involved in Company operations. This includes shore-based managers and staff, vessel masters, officers, and crews where applicable.

Organizational Responsibility

The Owner/Operator accepts overall responsibility for all matters related to safety and environmental protection.

Owner/Operator

Date Signed

Chapter 3
Company Responsibility and Authority

Policy

If the person who is responsible for the operation of the Company or vessel(s) is other than the owner, the owner will report the full name and details of such person to the U.S. Coast Guard.

The Company defines and documents the responsibilities, authority, and interrelation of all personnel who manage, perform, and verify work relating to and affecting safety and pollution prevention.

It is Company policy to ensure that resources and shore-based support are provided to enable the designated person(s) to carry out their functions.

Policy Implementation

Details of vessel owner(s) and operator(s) are provided to U.S. Coast Guard. Details of this reporting procedure is outlined here in this section.

The SMS provides comprehensive details of the roles played by all personnel. Job descriptions are provided for each person involved in the SMS. Lines of authority and reporting are detailed in organizational charts that are also found in this section.

The Company provides the designated person(s) with adequate resources and support to perform their duties with respect to the SMS. Company policy is implemented through various SMS procedures, such as monitoring of the performance of each vessel in safety and environmental protection matters, provision, and availability of adequate spare parts. Company review of the SMS and regular assessments of the allocation of financial and material resources to safety and environmental protection measures. Details of the various provisions are contained throughout the SMS documentation.

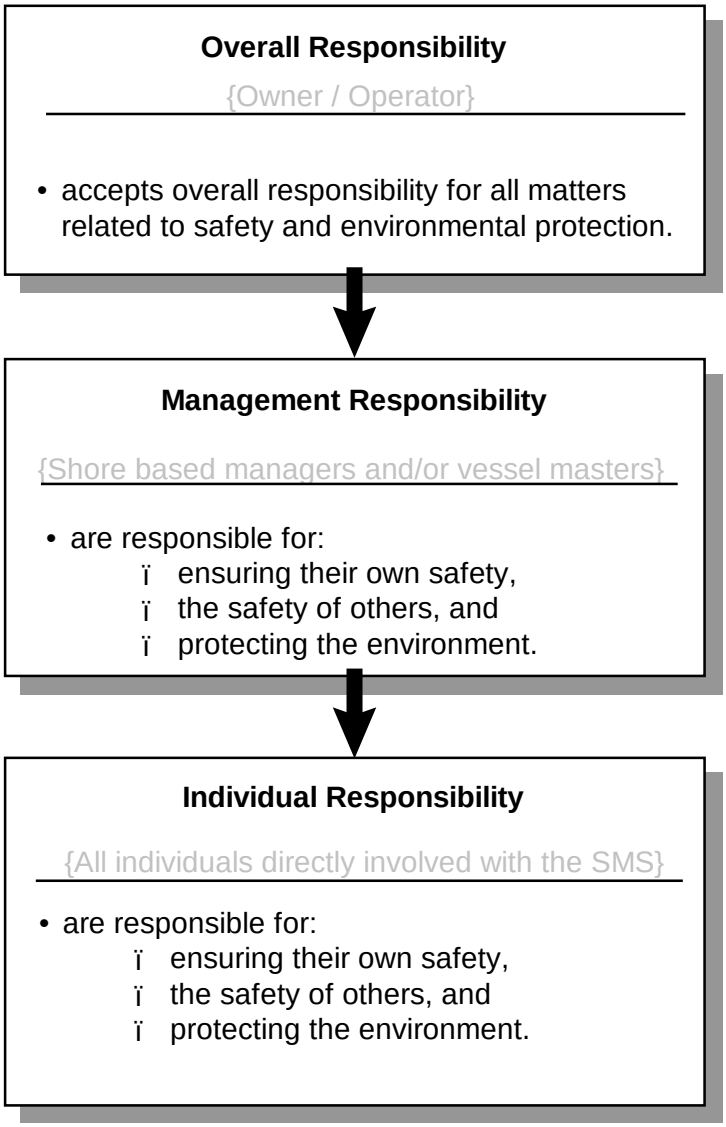
Organizational Responsibility

The person responsible for the operation of the Company or vessel(s) is listed below.

Name	Title

Company Organizational Chart

Three tier organizational chart.



Company Organizational chart

Two tier organizational chart.

Job Description

Title: _____

Vessel Name: _____

Immediate Supervisor (if applicable)**:** _____

Required Qualifications:

- _____
- _____
- _____
- _____
- _____

General Responsibilities for Safety and Environmental Protection:

_____

_____

_____

_____

_____

_____

Specific Responsibilities:

- _____
- _____
- _____
- _____
- _____

Specific Responsibilities (continued)**:**

- _____
- _____
- _____
- _____
- _____

Emergency Responsibilities:

- _____
- _____
- _____
- _____
- _____

SMS Responsibilities:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Chapter 4
Designated Person(s)

Policy

It is Company policy to appoint and to list in writing a designated person(s) in accordance with 33 CFR 96.250 (c).

Implementation

The Company has appointed _{Name of Designated Person}___ as the designated person to carry out the company's onshore responsibility and authority for the SMS.

Responsibility and authority

The written responsibility and authority of the designated person(s) shall include monitoring the safety and pollution prevention aspects of the operation of each ship. The Company shall ensure that adequate resources and shore-based support are provided to enable the designated person to carry out his or her SMS responsibilities, as required. The designated person is given the authority to perform his or her duties from the highest authority in the company and has direct access to highest levels of management ashore and aboard the company's vessel(s).

Chapter 5
Master's Responsibility

Policy

It is company policy to define and document the Master's responsibility and his or her overriding authority in relation to matters of safety and of environmental protection in accordance with the following requirements:

- implementing the safety and environmental protection policy of the company;
- motivating the crew in the observation of that policy;
- issuing appropriate orders and instructions in a clear and simple manner;
- verifying that specified requirements are observed; and
- reviewing the SMS and reporting its deficiencies to shore-based management.

Policy Implementation:

The Master's duties and responsibilities are set out in his or her job description (following pages).

The Master receives his or her authority from the highest levels of company management.

The Master has the overriding authority and responsibility with respect to safety and pollution prevention on board his or her vessel and can request any assistance from the company as may be deemed necessary.

Job Description

Title: Master

Vessel Name: _____

Immediate Supervisor (if applicable)**:** _____

Letter of Appointment: (Master has a letter of appointment from the owners).

Required Qualifications:

- Coast Guard Masters License for a vessel of at least 100 Gross Tons,
- (any other company requirements)
- _____
- _____
- _____

General Responsibilities for Safety and Environmental Protection

The Master shall operate the vessel with the safety of the passengers and crew foremost in mind by directing the vessel in order to prevent a casualty. In addition, the Master shall operate the vessel in a safe manner to minimize the risk of pollution to the environment.

Specific Responsibilities:

The Master is required:

- to be adept with the vessel's structure and layout;
- to be fully familiar with the vessel's safety management system;
- to familiarize all first time crew members for the first time with the management system, safety requirements, instructions, and facilities on board the vessel; and
- to update established personnel whenever any changes occur in the management system, equipment or safety instructions.

Repairs and Alterations

The Master shall:

- notify the Officer in Charge, Marine Inspection (OCMI) as soon as practicable after repairs or alternations are made during an emergency.
- notify the cognizant OCMI as soon as practicable that the seal on a boiler safety valve on a vessel is broken.
- conduct the inspection and enter the results of the inspection in the vessel logbook when not in a port or a place in the United States or its territories and possessions, and when a marine chemist or a person authorized by the cognizant OCMI is not available.
- obtain a copy of certificates issued by the certified marine chemist or the other person authorized by the cognizant OCMI, and ensure that all conditions on the certificates are observed and that the vessel is maintained in a safe condition.
- maintain safe conditions on the vessel by requiring full observance, by persons under his or her control, of all requirements listed in the certificate.

Material Inspections

The Master shall destroy each fire hose found to be defective and incapable of repair in the presence of a marine inspector.

Marine Casualties and Voyage Records

The Master shall report:

- damage to a boiler, unfired pressure vessel, or machinery that renders use of the item unsafe until repairs are made, to the OCMI at the port where the casualty occurred or nearest the port of first arrival, as soon as practicable.
- the following entries in the Official Logbook:
  - each legal conviction of a seaman of the vessel and the punishment inflicted;
  - each offense committed by a seaman of the vessel for which it is intended to prosecute or to enforce under a forfeiture, together with statements about reading the entry and the reply made to the charge as required by 46 U.S.C. 11502;
  - a statement of the conduct, character, and qualifications of each seaman of the vessel or a statement that the master declines to give an opinion about that conduct, character, and qualifications;
  - each illness of or injury to a seaman of the vessel, the nature of the illness or injury, and the medical treatment;
  - each death on board, with the cause of death, and if a seaman, the following information required by 46 U.S.C. 10702:
    - the wages due to a seaman who dies during the voyage and the gross amount of all deductions to be made from the wages;

  - the sale of the property of a seaman who dies during the voyage, including a statement of each article sold and the amount received for the property;
- each birth on board, with the sex of the infant and name of the parents;
- each marriage on board, with the names and ages of the parties;
- the name of each seaman who ceases to be a crew member (except by death), with the place, time, manner, and the cause why the seaman ceased to be a crew member; and
- immediately after a marine casualty occurs, write a statement about the casualty and the circumstances under which it occurred.

Miscellaneous Operating Requirements

The Master shall:

- determine vessel compliance with all applicable stability requirements in the vessel's trim and stability book, stability letter, Certificate of Inspection, and Load Line Certificate after loading and prior to departure and at other times necessary to assure the safety of the vessel.
- take necessary precautions to see that all vehicles have their motors turned off and their emergency brakes set when the vessel is underway. Also, that the motors are not started until the vessel is secured to the landing, and a vehicle at each end of a line of vehicles or next to a loading ramp has its wheels securely blocked while the vessel is being navigated.
- ensure that appropriate "NO SMOKING" signs are posted.
- take all necessary precautions to prevent smoking or carrying of lighted or smoldering pipes, cigars, cigarettes or similar items in the deck area where automobiles or other vehicles are located.
- prior to getting underway, ensure that vehicles are properly distributed consistent with the guidance in the vessel's stability letter and Certificate of Inspection, if applicable.
- ensure that whenever an automatic pilot is used:
  - it is possible to immediately establish manual control of the vessel's steering;
  - a competent person is ready at all times to take over steering control; and
  - the changeover from automatic to manual steering and vice versa is made by, or under the supervision of, the master or the mate on watch.

Preparations for Emergencies

The Master shall:

- conduct sufficient drills and give sufficient instructions to make sure that all crew members are familiar with their duties during emergencies that necessitate abandoning ship, or the recovery of persons who have fallen overboard.
- conduct sufficient fire drills to make sure that each crew member is familiar with his or her duties in case of a fire.

Emergency Responsibilities:

The master of the vessel is responsible for directing the movement of the vessel and the actions of the crew in an emergency.

Unless otherwise delegated, the Master of a small passenger vessel is responsible for the following tasks in an emergency:

- MAY DAY call to Coast Guard/maintain communications with rescue resources.
- Maneuvering vessel to minimize the effects of wind on a fire.
- Issuance of clear orders/instructions to the crew and passengers.

Master's Authority

The Master has the overriding authority to make decisions with regard to safety and environmental protection.

Chapter 6
Resources and Personnel

Policy

It is company policy to provide resources and personnel in accordance with 96.250(f) of 33 CFR.

Policy Implementation

The Company shall appoint masters who (See Chapter 5 for description of Master's duties.)--

- possess the required level of training and competence to command the type of vessel to which they are assigned;
- hold appropriate internationally recognized certificates; and
- are fully conversant with the Company's SMS.

- ensure that the master is given the necessary support so that his or her duties can be safely performed.
- ensure that each ship is manned with qualified, certificated, and medically fit seafarers in accordance with national and international requirements.
- establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented, and given to personnel.
- ensure that all personnel involved in the Company's SMS have an adequate understanding of relevant rules, regulations, codes, guidelines, and responsibilities regarding to the SMS.
- identify and provide needed training to support the SMS for all personnel concerned.
- communicate relevant information on the SMS to those affected in a language(s) understood by them.
- ensure that the ship's personnel are able to communicate effectively with each other and with the passengers in the execution of their duties related to the SMS.

Chapter 7
Vessel Operating Procedures

Introduction

This section contains details and definitions of many of the operating procedures in place on board the vessel. Specific instructions for every operation are not provided. The procedures are concise and provide documentation in manageable proportions, which can be readily understood by all relevant shipboard personnel. Only qualified persons should be assigned to specific tasks.

About this Chapter

The operating procedures have been divided into three sections.

Section 1 is a general section containing generic safety management procedures. The implementation of the procedures in Section 1 will ensure that effective internal measures are in place for a wide range of safety management elements, including internal inspections, risk reduction, and control of hazardous activities, and permits to work.

Section 2 contains vessel specific safety management procedures necessary prior to the vessel getting underway.

Section 3 contains vessel specific safety management procedures necessary while the vessel is underway.

These procedures have been developed in such a way so they may easily be modified at any time or additional operational procedures included. Each procedure is a stand-alone document and is modified in accordance with the company document control procedures. Each revision shall have its own issue date and author.

Table of Contents

General Procedures

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.1 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Certification of Inspection**

I. General Description

This procedure details the process to apply for and renew the Certificate of Inspection (COI). The vessel may not operate without having on board a valid U.S. Coast Guard COI.

II. Responsibilities

The owner or operator is responsible for:

- obtaining or renewing the Certificate of Inspection;
- understanding the requirements for the Certificate; and
- ensuring that the condition of the vessel and its equipment is satisfactory to pass the inspection for certification.

III. Definitions

OCMI - Officer in Charge, Marine Inspection

IV. References

46 CFR 176

Form CG 3752, "Application for Inspection of U.S. Vessel" can be found at any U.S. Coast Guard Marine Safety Office or Marine Inspection Office.

V. Procedures

The COI must be renewed every three years.

To obtain or renew COI--

- ensure that the vessel is in full compliance to successfully pass the inspection process;

- complete an application on Form CG 3752, "Application for Inspection of U.S. Vessel;"
- submit the application to the Coast Guard OCMI of the marine inspection zone in which the inspection is to be made;
- contact the cognizant OCMI to arrange for an inspection to be conducted at a time and place acceptable to the OCMI;
- conduct all tests as required by the marine inspector; and
- display COI and certification expiration date sticker(s) in an area readily visible to passengers.

Application for initial inspection for new construction or conversion--

- complete an application on Form CG 3752, "Application for Inspection of U.S. Vessel;"
- submit the application prior to the start of the construction or conversion;
- submit the application to the Coast Guard OCMI of the marine inspection zone in which the inspection is to be made; and
- submit plans, manuals, and calculations indicating the proposed arrangement, construction, and operations of the vessel, in accordance with 46 CFR 177.202, to the cognizant OCMI.

The following vessel(s) operate(s) in the following Marine Inspection Zone(s):

Vessel Name: _____

MSO Office Address: _____

Phone Number: _____

MSO Office Address: _____

Phone Number: _____

MSO Office Address: _____

Phone Number: _____

Vessel Name: _____

MSO Office Address: _____

Phone Number: _____

MSO Office Address: _____

Phone Number: _____

MSO Office Address: _____

Phone Number: _____

Signed	**Date**

DEPARTMENT OF TRANSPORTATION U.S. COAST GUARD CG-3752 (Rev. 4-82)	APPLICATION FOR INSPECTION OF U.S. VESSEL	FORM APPROVED OMB NO. 2115-0007

Address to reply to:

TELEPHONE NUMBER:
DATE:

TO: Officer in Charge, Marine Inspection

Marine Inspection Zone _____

The undersigned applies to have the ☐ Steam Vessel ☐ Motor Vessel

☐ Motorboat ☐ Barge ☐ Other (*Indicate*) _____

named _____ Official or Award No. _____

Inspected under the laws of the United States; to be employed as a ☐ Passenger Vessel (*No. of Passengers* _____)

☐ Cargo Vessel ☐ Tank Vessel ☐ MODU ☐ Other (*Indicate*) _____

on the following route: (*Waters, Geographical limits*) _____

_____

Liquid cargo in bulk ☐ will ☐ will not be carried as follows:

☐ Flammable or Combustible (*Indicate grade*) _____

☐ Chemicals (*Indicate*) _____

Length of vessel _____ ft.

Hull material: ☐ Steel ☐ Other (*Indicate*) _____

Vessel will be at (*Port, Pier, etc.)* _____

The current Certificates of Inspection expires on _____ 19 ____ .

Inspection is desired on _____ 19 ____ .

Cargo Ship Safety Construction Certificate to be issued by ☐ ABS ☐ USCG.

Vessel ☐ is ☐ is not to be classed.

If classed, indicate Classification society: ☐ ABS ☐ Other (*Indicate*) _____

I CERTIFY that previous application for this inspection ☐ has ☐ has not been made. I further certify that I have instructed the master to present the vessel ready in all respects for the above requested inspection on the date specified. I understand that if this inspection is to be conducted at a foreign port or place, the vessel owners will be billed for the costs incurred in accordance with 46 USC 385b-1.

(*Signature*) _____

(*Title*) _____

PREVIOUS EDITION IS OBSOLETE

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.2 **Page:** 1 of 5 **Issue Date:** **Author:**

Subject: **Certificates and Documentation**

I. General Description

This procedure describes the certificates and documentation required for all company vessels to operate in U.S. and international waters.

II. Responsibilities

Owner, or managing operator, is responsible for ensuring that necessary certificates and documents are provided and maintained on board the vessel.

III. Definitions

SOLAS - International Convention for Safety of Life at Sea

IV. References

All the following references can be found in 46 CFR or NFPA 10.

– Displaying Certificates	176.302
– SOLAS Passenger Ship Safety/Exemption Certificate	176.910 176.920
– Crew and Passenger Lists	185.502
– Crew Licenses	185.402
– Voyage Plan	185.503
– Official Logbook for Foreign Voyages	185.280
– Crew Training Log	185.420
– Station Bill	185.514
– Fire, Abandon Ship, and Man Overboard Drill, and Training Log	185.520 185.524
– Fire Extinguisher Servicing Log	FPA 10, Chapter 4
– Flammable Vapor Detection System	182.480
– EPIRB Testing Logbook	185.728

V. Requirements

The following certificates and documents must be maintained on board the vessel:

Certificates

- Certificate of Inspection (COI) (see OP1.1)
- Equivalency endorsement to the Certificate of Inspection (July 1, 1998)
- SOLAS Passenger Ship Safety certificate **OR** SOLAS Exemption certificate (only if carrying 12 or more passengers on an international voyage)

Documents

- crew and passenger lists
- crew licenses
- voyage plan
- official logbook (for foreign voyages)
- crew emergency procedure training documentation
- station bill (if applicable, see CFR 185.514)
- crew training documentation (abandon ship, man overboard, and fire fighting)
- documentation for the required servicing of fire extinguishers
- operation and maintenance manual for a flammable vapor detection system (if applicable)
- manufacturer's instructions for onboard maintenance of survival crafts, rescue boats, and launching appliances, manufactured on or after March 11, 1996; or a shipboard planned maintenance program
- Emergency Position Indicating Radiobeacons (EPIRB) testing documentation
- Safety Management System Manual

VI. Procedures

1. Displaying Certificates
    - display the COI and any SOLAS certificates under a suitably transparent material in a conspicuous place on the vessel, where easily observed by passengers.

2. The owner, operator, or designated person shall ensure that the following certificates are--

   - obtained;
   - validated;
   - retained; and
   - renewed at the appropriate dates.

3. Equivalency Endorsement for the Safety Management System (July 1, 1998)

   - {Specific actions for equivalence applications will be provided by the Coast Guard at a later date.}

4. SOLAS Passenger Ship Safety Certificate **OR** SOLAS Exemption Certificate - valid for 12 months

   - verify that the route specified on the COI and the Passenger Ship Safety Certificate agree
   - notify the OCMI if the vessel no longer requires a certificate

5. The owner, operator or designated person shall ensure the following records are--

   - kept on board; and
   - updated at the appropriate dates.

 Crew and Passenger Lists and Passenger Count

Keep a correct list of the names of all persons that embark on and disembark from the vessel (on international voyages and certain ocean and coastwise voyages)--

- prepare prior to departing
- communicate verbally or in writing ashore at vessel's normal berthing location
- make available to Coast Guard upon request

Keep a correct and written count of all passengers who embark on and disembark from the vessel (if not required to keep a list).

- communicate the count verbally or in writing ashore at vessel's normal berthing location prior to departing
- make available to Coast Guard upon request

 Crew Licenses

- ensure that each licensed individual employed upon the vessel has his or her license on board and available for examination at all times

 Voyage Plan

Prepare and maintain a voyage plan--

  - prepare prior to departing
  - communicate verbally or in writing ashore at vessel's normal berthing location
  - make available to the Coast Guard upon request

 Official Logbook (for foreign voyages)--

Prepare and maintain a log book that contains the following information--

- each legal conviction of a seaman of the vessel and the punishment inflicted;
- each offense committed by a seaman of the vessel for which it is intended to prosecute or to enforce under a forfeiture, together with statements;
- a statement of the conduct, character, and qualifications of each seaman of the vessel, or a statement that the master declines to give an opinion;
- each illness of or injury to a seaman of the vessel, the nature of the illness or injury, and the medical treatment;
- each death on board, with the cause of death. If a seaman, (see 46 U.S.C. 10702) note
  - wages due and gross amount of all deductions to seaman's pay, and
  - sale of seaman's property (statement of each article sold, amount received);
- each birth on board (sex of the infant, names of the parents);
- each marriage on board (names and ages of the parties);
- name of each seaman who ceases to be a crew member (except by death) including:
  - place,
  - time,
  - manner, and
  - cause why the seaman ceased to be a crew member;
- marine casualty: statement about casualty and circumstances under which it occurred;

 Crew Emergency Procedure Training Log

Prepare and maintain a log book that contains the following information:

- date of training and
- general description of training topics.

 Station Bill (if applicable, see CFR 185.514)

Prepare and post station bill that specifies the special duties and duty stations of each crew member for various emergencies.

For the proper handling of a particular emergency, the duties must include at least the following:

- close hatches, airports, watertight doors, vents, scuppers, and valves for intake, and discharge lines that penetrate the hull.
- stop fans and ventilating systems.
- operate all safety equipment.
- prepare and launch survival craft and rescue boats.
- extinguish fires.
- muster passengers to their appointed stations and controlling the movement of passengers in passageways and stairways.

 Fire, Abandon Ship and Man Overboard Drill and Training Log

Prepare and maintain a log documenting the following information:

- date of drill and training.
- general description of drill scenario and training topics.

 Fire Extinguisher Servicing Log or Tag

Record date of servicing.

 Flammable Vapor Detection System (if applicable)

Post procedures for checking the proper operation of a flammable vapor detection system at the primary operating station.

 EPIRB Testing Log

Document the following information for the monthly testing of each EPIRB, (except EPIRB in an inflatable liferaft):

- date of test,
- results of test, and
- any action needed to be taken.

6. The owner, operator, or designated person shall ensure the following records are kept on board and updated at the appropriate dates:
    - light list,
    - notices to mariners,
    - tide tables,
    - current tables,
    - navigational charts,
    - coast pilot, and
    - extracts of the above publications may be provided in lieu of the entire publication.

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.3 **Page:** 1 of 1 **Issue Date:** **Author:**

Subject: **Master's Standing Instructions**

I. General Description

This policy describes the operational duties carried out by the master of the vessel. In particular, these duties are directly related to the safety of the passengers, crew, and vessel, as well as the protection of the environment.

II. Responsibilities

(See Master's Job Description in Chapter 5, page 17.)

III. Requirements

(See Master's Job Description in Chapter 5, page 17.)

IV. Procedures

(See Master's Job Description in Chapter 5, page 17.)

In addition to the regulatory requirements, the following company requirements shall be carried out by the master:

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.4 **Page:** 1 of 7 **Issue Date:** **Author:**

Subject: **Discharge of Oils and Garbage**

I. General Description

This procedure explains the policy and methods for the control, reporting, recordkeeping, and operating plans for oil discharge occurrences. This procedure also describes the policy for handling waste disposal at sea and in port.

II. Responsibilities

It is the master's responsibility to ensure that all crew members are familiar with this procedure and all regulations are enforced.

III. Definition

Navigable waters of the U.S.

- three miles out from the coast of the U.S.
- internal waters of the U.S.
- other waters over which the Federal Government may exercise Constitutional authority

IV. References

All the following references can be found in 33 CFR.

– Control of discharge of oil	151.10
– Exceptions for emergencies	151.11
– Reporting requirements	151.15
– Applicability	151.51
– Special areas for Annex V of MARPOL 73/78	151.53
– Recordkeeping requirements	151.55
– Waste management plans	151.57
– Garbage disposal	151.59 - 77

V. Procedure

Discharge of Oil

Oil and oily water mixtures can only be discharged through a Coast Guard approved oily water separator.

The discharge of oil is prohibited when:

- more than 12 NM *from* the nearest land
  - oil content is more than 100 parts per million (ppm)
- *within* 12 NM of the nearest land or within special areas
  - oil content is more than 15 parts per million (ppm)

Exceptions for Emergencies:

- if necessary to secure the safety of a ship or saving a life at sea
- if resulting from damage to a vessel or its equipment

Reporting requirements:

The master or person in charge of the vessel involved in an incident is responsible for:

- reporting the incident without delay by radio or fastest means possible
- supplement the initial report, as necessary, with further developments
- comply with requests for additional information from affected countries

Who to make the report to:

- the appropriate officer or government agency of the affected country; and
- either:
  - the nearest Coast Guard Captain of the Port (COTP), or
  - the National Response Center (NRC) at 800-424-8802 (telex 892427)

Information contained in the report includes:

- identity of the vessel
- time and date of the incident
- geographic position of the vessel at the time of the incident
- wind and sea condition at the time of the incident
- condition of the ship at the time of the incident
- estimate of the quantity of oil/oily mixture discharged into the sea

Garbage Pollution

Special areas for Annex V of MARPOL 73/78:

- Gulf of Mexico
- Caribbean Sea

Recordkeeping requirements

Types of garbage or disposal operations:

- discharge overboard
- discharge to another ship
- discharge to a reception facility
- incineration on the ship

For each of the above types of garbage or disposal operations, the master or person in charge of the vessel shall ensure that:

- a written record is prepared at the time of the operation
- the record is maintained on the vessel for two years following the operation
- the record is made available for inspection by the Coast Guard

The record must contain:

- type of garbage or disposal operations
- date and time of the operation
- position of vessel at the time of the operation, if not at port
- identity of receiving ship (name and official number), if off-loading to another ship
- amount of garbage involved (volume in cubic meters)
- for discharges into the sea, a description of the contents
  - plastic
  - floating dunnage, lining or packing material
  - ground paper products, rags, glass, metal, bottles, crockery or other similar garbage
  - food wastes
  - incinerated ash
  - incinerated plastic residue

Waste management plans:

Applicability:

- manned oceangoing vessel (operates more than 3 NM from shore);
- 40 feet or more in length; **and**
- vessel is documented under the laws of the U.S.; **or**
  - state numbered vessel
- either engaged in commerce or equipped with a galley and berthing.

Responsibility:

- The master or person in charge of the vessel shall ensure that the waste management plan is on the ship and each person handling garbage follows the plan.

Each plan must:

- be in writing,
- describe the procedures for collecting, processing, storing and discharging garbage, and
- designate the person who is in charge of carrying out the plan.

Garbage Disposal

Operating Requirements

- Discharging garbage into the navigable waters of the U.S. is **prohibited**.
- Discharging plastic or garbage mixed with plastic into the sea or navigable waters of the U.S. is **prohibited**.
- All garbage containing plastics must be discharged ashore or incinerated.
- When operating **outside** of a **special area** (Gulf of Mexico and Caribbean Sea) discharge of garbage separated from plastic is **prohibited** if the distance from the nearest land is less than:
  - 25 NM for dunnage, lining, and packing materials that float, and
  - 12 NM for food wastes and all other garbage (except garbage that has passed through a grinding device may be discharged outside 3 NM).
- When operating **within** a **special area** (Gulf of Mexico and Caribbean Sea) discharge of garbage is **prohibited** except as allowed:
  - disposal of food wastes must be made as far as practicable from land but, not less than 12 NM from the nearest land, and

- disposal of food wastes that have passed through a grinding device must be made as far as practicable from land but, not less than 3 NM from the nearest land.

Grinding Devices

- Must be capable of processing garbage so that it passes through a screen with openings no greater than one inch.

Exceptions for Emergencies:

- If necessary to secure the safety of a ship or saving a life at sea
- If resulting from damage to a vessel or its equipment

Garbage Placards

Applicability:

- Manned U.S. vessel 26 feet or more in length.

Responsibility:

- The master or person in charge of the vessel shall ensure that one or more placards are displayed in prominent locations and in sufficient numbers so that they can be read by the crew and passengers.

Construction:

- Nine inches high
- Made of durable material
- Lettered with letters at least $^{1}/_{8}$ inch high

Message on Placard:

1. The discharge of plastic or garbage mixed with plastic into any waters is **prohibited**.
2. The discharge of all garbage is **prohibited** in the navigable waters of the U.S. and, in all other waters, within three NM of the nearest land.
3. The discharge of dunnage, lining, and packing materials that float is **prohibited** within 25 NM from the nearest land.
4. Other unground garbage **may** be discharged beyond 12 NM from the nearest land.
5. Other garbage ground to less than one inch **may** be discharged beyond three NM of the nearest land.
6. A person who violates the above requirements is liable for a civil penalty of up to $25,000, a fine of up to $50,000, and imprisonment for up to five years for each violation.

7. Regional, state, and local restrictions on garbage discharges also may apply.

Shipboard Control of Garbage

Responsibility:

- The master or person in charge of the vessel shall ensure that:
  - all garbage is discharged ashore or in accordance with the regulations
  - if garbage is transported from a vessel by crew members, it is properly deposited into a port or terminal's reception facility

The following may be considered by enforcement personnel in evaluating compliance:

- records, including receipts, of garbage discharges at port reception facilities
- records or log entries of garbage discharges
- presence and operability of incinerators or grinding devices
- presence of and adherence to a written shipboard waste plan
- absence of plastics in ship stores
- ongoing training programs to inform personnel of garbage handling procedures
- presence of vessel spaces used for collecting, processing, storing, and discharging garbage

Reporting Requirements

The master or person in charge of the vessel shall notify the port or terminal, at least 24 hours before entering the port or terminal, of:

- the name of the ship
- the estimated volume of garbage, and
- the types of garbage to be discharged:
  - garbage regulated by the Animal and Plant Health Inspection Service (APHIS)
  - medical wastes
  - hazardous wastes

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.5 **Page:** 1 of 1 **Issue Date:** **Author:**

Subject: **Working Hours**

I. General Description

46 U.S.C. 8104 sets limitations on the working hours of licensed individuals and crew members.

II. Responsibilities

It is the responsibility of the master or the person in charge to ensure that the limitations are met.

III. References

46 CFR 15.710, 46 U.S.C. 8104

IV. Requirements

46 U.S.C. 8104 sets limitations on the working hours of licensed individuals and crew members prescribing certain rest periods.

a) An officer may take charge of the deck watch on a vessel when leaving or immediately after leaving port only if the officer has been off duty for at least 6 hours within the 12 hours immediately before the time of leaving.

b) A licensed individual may not be required to work more than 9 of 24 hours when in port, including the date of arrival, or more than 12 of 24 hours at sea, except in an emergency when life or property are endangered.

V. Procedures

1. Specify the working hours and rest periods for the entire crew

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.6 **Page:** 1 of 1 **Issue Date:** **Author:**

Subject: **Personnel Management and Standards**

I. General Description

The company has established a set of standards of behavior and expectations for all shipboard personnel in relation to safety and environmental protection. These standards are outlined in _____. This procedure allows shore management to monitor what is happening on board ships and ensures that there is a consistency in the issue of standing instructions on board the ship(s).

II. Responsibilities

The company, under the owner/operator is responsible for establishing the standards of behavior and personnel for all personnel and ensuring that these standards are followed.

III. References

46 CFR 10

IV. Requirements

The company must ensure that all personnel are acting in accordance with company policy as well as relevant requirements for shipboard personnel.

V. Procedures

The company should make clear to each individuals what the established procedures are. When new procedures are to be implemented, all relevant personnel should be notified and given the opportunity to ask questions.

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 1.7 **Page:** 1 of 4 **Issue Date:** **Author:**

Subject: **On Board Medical Arrangements**

I. General Description

This procedure describes the requirements to carry a first aid kit on board all vessels.

II. Responsibilities

It is the responsibility of the owner or master to provide an adequate first aid kit on board the vessel at all times. It is also the responsibility of the owner or master to ensure that the kit is maintained with the proper contents at all times.

III. References

46 CFR 184.710, 160.041

IV. Requirements

- A vessel must carry a first aid kit approved under 46 CFR 160.041 series, or other standard specified by the Commandant, or a kit with equivalent contents and instructions (See tables 1-1, 1-2).
- For equivalent kits, the contents must be stowed in a suitable watertight container that is marked, “First Aid Kit”.
- A first aid kit shall be easily visible and readily available to the crew.
- The items contained in each first-aid kit are listed in Table 1-1.
- Medicines must meet the requirements of the U.S. PHARMACOPOEIA.

Note ✍

Manufacturers of "equivalent" kits may also mark them with the following or similar wording:

"This First Aid Kit meets the Coast Guard's minimum requirements for small passenger vessels in 46 CFR 121.710 and 184.710."

"Equivalent" kits are **NOT** permitted to be marked "Coast Guard Approved."

V. Procedures

Ensure that:

1. kit is stowed in an appropriate watertight container clearly marked "First Aid Kit"
2. kit is readily accessible to crew
3. kit is maintained with all the required contents at all times
4. detailed instructions for the use of each item are available
5. [Additional Company Procedure]
6. [Additional Company Procedure]

When a medical emergency occurs that is beyond the capability of the master or crew, immediately notify the following:

[Name and telephone number of medical emergency contact]

[Name and telephone number of medical emergency contact]

Signed	**Date**

Table 1-1

Contents of First-Aid Kit

Item	Unit Size Carton	Number of Units
Adhesive Bandage Compress (16 per Unit)	Size 1 or 2	2
Bandage Compress (4 per Unit) 5 cm (2 in.)	Size 1 or 2	2
Bandage Compress (1 per Unit) 10 cm (4 in.)	Size 1	3
Triangular Bandage (1 per Unit)	Size 1 or 2	2
Absorbent Gauze Compress (1 per Unit)	Size 1	2
Gauze Roller Bandage (1 per Unit) 10 cm (4 in.)	Size 1	2
Aluminum Splint (1 per Unit)	Size 1	1
Tourniquet (1 per Unit)	Size1 or 2	1
Eye Dressing Packet (Pads and Strips) (4 per Unit)	Size 1	1
Eye Wash Solution (30 ml (1 oz) per Unit)	Size 1 or 2	2
Ammonia Inhalants (10 per Unit)	Size 1	1
Antiseptic Swabs (10 per Unit)	Size 1	1
Burn Treatment Compound,	Size 1	2
Ointment Type (3.0 grams (0.11 oz.)) (6 per Unit)		
Aspirin, 324 milligram (5 grain) tablets (48 per Unit)	Size 1	2

Table 1-2
General Instructions for the Use of the Items in this First-Aid Kit

Item	Use
Absorbent Gauze Compress	Apply as dressing over large wound.
Adhesive Bandage Compress	Apply as dressing over small wound.
Aluminum Splint	Use to immobilize broken or fractured bones. Pad with gauze or cloth. Hold in place with roller bandage.
Ammonia Inhalant	Break one and inhale for faintness or fainting. DO NOT use on suspected heart attack victims.
Antiseptic Swabs	Break one and apply to cuts, scratches, etc., to prevent infection. DO NOT use in or around eyes.
Aspirin	Adults take 2 tablets every 4 hours as needed for fever, muscle aches, headaches, and general discomfort.
Bandage Compress 5 cm (2 in.) and 10 cm (4 in.)	Apply as dressing over wound.
Burn Treatment Compound	Apply to minor burns and sunburn. DO NOT use in eyes.
Eye Dressing Packet	After washing eye, secure eye pad over eye using adhesive strips.
Eye Wash Solution	Use to cleanse irritated eye prior to applying eye pad.
Gauze Roller Bandage	Use to secure bandages, splints, etc.
Tourniquet	Use as last resort in controlling severe bleeding. Loosen a few seconds every 15 minutes.
Triangular Bandage	Use as a sling, tourniquet or to retain splints or dressings in place.

PROCEDURES PRIOR TO GETTING UNDERWAY

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.1 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Checking Stability**

I. General Description

This procedure describes the requirement for ensuring that the vessel is in compliance with the stability requirements as stated on the Certificate of Inspection before going underway.

II. Responsibilities

It is the master's responsibility to determine the vessel's compliance with all applicable stability requirements.

III. References

46 CFR 185.315, 185.340

IV. Requirements

It is the master's responsibility to determine the vessel's compliance with all applicable stability requirements in the vessel's:

- trim and stability book,
- stability letter,
- Certificate of Inspection, and
- Load Line Certificate.

Determining the stability requirements applies to after loading and prior to departure and at all other times necessary to assure the safety of the vessel. The vessel may not depart until it is in compliance with these requirements.

V. Procedures

The master shall, prior to getting underway:

{Provide vessel specific procedure}

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.2 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Assessment of Weather Conditions**

I. General Description

The vessel will be required to operate in constantly changing environments. It is important to constantly monitor the changing weather conditions and be aware how the weather can dramatically affect the vessel's behavior.

II. Responsibilities

It is the ultimate responsibility of the master to constantly monitor and assess the weather conditions unless a lookout has specifically been assigned to this task. Crew members are also expected to monitor and assess the changing conditions of the weather.

III. References

46 CFR 185.304

IV. Requirements

The master shall operate the vessel keeping in mind the safety of the passengers and crew foremost in mind by directing the vessel in order to prevent a casualty. Special attention should be paid to the prevailing visibility and weather conditions.

V. Procedures

The master shall:

{Provide vessel specific procedure}

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.3 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Securing Loading Doors, Hatches, and All Openings**

I. General Description

This procedure outlines the actions necessary to ensure the securing of all vessel openings prior to getting underway.

II. Responsibilities

It is the responsibility of the master of a vessel fitted with loading doors to assure that all loading hatches and loading doors are tightly closed and secured during the entire voyage.

III. Definitions

Loading doors include all weathertight ramps, bow visors, and openings used to load personnel, equipment, and stores, in the collision bulkhead, the side shell, and the boundaries of enclosed superstructures that are continuous with the shell of the vessel.

IV. References

46 CFR 185.330, 185.335

V. Requirements

Hatches and Other Openings

1. All doors, hatches, scuttle covers, and openings in the hull of a vessel must be kept tightly closed while the vessel is underway and while it is moored and unattended by crew members.

Except

- when being used
- when operating on lakes, bays, and sounds or river routes in calm weather

2. All watertight doors in subdivision bulkheads must be kept tightly closed during the navigation of the vessel.

Except

- when being used for transit between compartments

Loading Doors (if applicable)

Ensure all loading doors are closed watertight and secured during the entire voyage.

Except

- Loading doors, other than bow visors, may be opened when operating in protected or partially protected waters, provided the master of the vessel determines that the safety of the vessel is not impaired.

VI. Procedures

The master shall, prior to getting underway:

{Provide vessel specific procedure}

Signed	Date

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.4 **Page:** 1 of 3 **Issue Date:** **Author:**

Subject: **Pre-Underway Checklist**

I. General Description

This procedure provides a simple checklist to check for proper condition, operation, and stowage or required equipment. Routine mechanical, electrical, and engine checks must also be done.

II. Responsibilities

The master is responsible to examine and test the steering gear, signaling whistle, propulsion controls, and communication systems of the vessel prior to getting underway for a voyage.

Except ✋

Examination and testing of these systems need not be conducted more than once in any 24 hour period.

III. References

46 CFR 185.320

V. Procedures

Before going underway, use the Pre Underway Checklist on the following pages as a guideline and note any problems with the items at the end of the form.

Signed	**Date**

Pre-Underway Checklist

Date:_____

Vessel Name:_____

Vessel Number:_____

Master Name:_____

_____ **1.** Located and checked the proper number, condition, operation, and stowage of the following equipment:

- _____ **a.** Personal floatation devices (PFDs)
- _____ **b.** Fire extinguishers
- _____ **c.** Visual distress signals
- _____ **d.** Anchors and anchor lines
- _____ **e.** Watch or clock
- _____ **f.** Boarding ladder (or other means of boarding)
- _____ **g.** Binoculars
- _____ **h.** Fenders
- _____ **i.** Mooring lines
- _____ **j.** Searchlight (if equipped)
- _____ **k.** Spare navigation lightbulbs
- _____ **l.** Boat hook
- _____ **m.** Navigation lights
- _____ **n.** Lead line or sounding pole (if no fuel gauge)
- _____ **o.** Charts, navigation plotting instruments
- _____ **p.** Tools and spare parts
- _____ **q.** First aid kit
- _____ **r.** Sound producing device
- _____ **s.** Current Rules of the Road publication on board (if applicable)

_____ **2.** Completed the required mechanical, electrical, and engine checks listed below.

- _____ **a.** Oil level (if applicable)
- _____ **b.** Water level (if applicable)
- _____ **c.** Reduction gear oil level (if applicable)
- _____ **d.** Fuel system, especially fuel shut-off valves
- _____ **e.** Cooling water (if applicable)
- _____ **f.** Bilge pumps and high level alarms
- _____ **g.** Ventilation system (if applicable)

_____ **3.** Conducted crew briefing:

- _____ **a.** Special conditions concerning the voyage
- _____ **b.** Special passenger concerns
- _____ **c.** Expected weather and sea conditions
- _____ **d.** Crew members properly equipped
- _____ **e.** Inform shore side management the number of passengers aboard

_____ **4.** Secured all openings as required.

_____ **5.** Secured vessel for sea (no loose gear).

_____ **6.** Displayed proper flags and signboards.

_____ **7.** Ventilated the engine compartment before starting engine(s).[Gasoline]

_____ **8.** Started the engine(s).

- _____ **a.** Energized the electrical and electronic systems (bilge pump, etc.)
- _____ **b.** Engine/marine gear pressures and temperatures satisfactory (if equipped)
- _____ **c.** Disconnected shore power

_____ **9.** Tested the following electronic equipment (if equipped).

- _____ **a.** VHF - FM radio

_____ **b.** Loud hailer

_____ **c.** Depth finder

_____ **d.** Loran C

_____ **e.** Radar

_____ **f.** Single Side Band Radio (if equipped)

_____ **g.** GPS

_____ **10.** Tested engine controls in forward and reverse with lines still attached to the dock; noted the reaction times for both directions.

_____ **11.** Removed mooring lines.

Note any problems with above items:

_____

_____

_____

_____

_____

_____

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.5 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Voyage Plan and Verification of Nautical Charts and Publications**

I. General Description

This procedure outlines the requirements to prepare a voyage plan and verify the correctness of nautical charts.

II. Responsibilities

The master of the vessel shall prepare a voyage plan and ensure that navigational charts and publications are on board and corrected as appropriate.

III. References

46 CFR 184.420
46 CFR 185.503
33 CFR 62.21

IV. Requirements

The master of the following vessels shall prepare a voyage plan:

_____	_____
_____	_____
_____	_____

As appropriate for the intended voyage, a vessel must carry adequate and up-to-date:

(1) Charts of large enough scale to make safe navigation possible;

(2) U.S. Coast Pilot or similar publication;

(3) Coast Guard Light List;

(4) Tide tables; and

(5) Current tables, or a river current publication issued by the U.S. Army Corps of Engineers or a river authority.

Except | Extracts from the publications listed above for the areas to be transited may be provided instead of the complete publication.

V. Procedures

Voyage Plan:

Applicability:

1. A vessel making an oceans or coastwise voyage;
2. A vessel making a voyage of more than 300 miles on the Great Lakes, except from a Canadian to a United States port;
3. A vessel, with overnight accommodations for passengers, making an overnight voyage; and
4. A vessel arriving from a foreign port, except at a United States Great Lakes port from a Canadian Great Lakes port.

When Prepared:

- prior to departing on a voyage

How and with Whom to Communicate:

- communicated verbally or in writing.
- ashore at the vessel's normal berthing location or with a representative of the owner or managing operator of the vessel.
- the voyage plan shall be available to the Coast Guard upon request.

Verification of Nautical Charts and Publications:

- verify that up-to-date nautical charts are on board and being used
- check that current appropriate publications have been consulted

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.6 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Loading and Discharging Passengers**

I. General Description

Loading, counting, and safety orientation are all part of loading and discharging passengers.

II. References

46 CFR 185.506, 185.504

III. Requirements

It is the responsibility of the master to:

- keep a correct, written count of all passengers that embark on and disembark from the vessel.
- communicate the count to a designated person ashore.
- ensure the passenger count is available to the Coast Guard upon request.
- ensure that all passengers receive a safety orientation providing instructions for an emergency.

IV. Procedures

Passenger List

1. Keep a correct list of the names of all persons that embark on and disembark from the vessel.
2. Prepare the list prior to departing and communicate the passenger list to a designated person ashore at vessel's normal berthing location.
3. Make the passenger list available to Coast Guard upon request.

Passenger Count (when not required to keep a list)

1. Keep a correct, written count of all passengers that embark on and disembark from the vessel.
2. Prior to departing on a voyage, verbally or in writing communicate the passenger count ashore at the vessel's normal berthing location or with a representative of the owner or managing operator of the vessel.

3. Make the passenger count available to the Coast Guard upon request.

Passenger Safety Orientation

1. Before getting underway, give each passenger, or place near each seat, a card or pamphlet that has the following information:

    a) The location of emergency exits, survival craft embarkation areas, and ring life buoys;

    b) The stowage location(s) of life jackets;

    c) Either:

        i. The proper method of donning and adjusting life jackets of the type(s) carried on the vessel including an illustration of the proper donning of a lifejacket, or

        ii. That passengers may contact a crew member for a demonstration as appropriate, prior to beginning an oceans or coastwise voyage;

    d) The location of the instruction placards for life jackets and other lifesaving devices;

    e) That all passengers will be required to don life jackets when possible hazardous conditions exist, as directed by the master; and

    f) If the vessel is operating with reduced manning or equipment requirements.

2. Make an short safety announcement over the public address (PA) system, stating the following:

    a) Passengers should follow the instructions of the crew in an emergency.

    b) Give locations of life jackets on board.

    c) Direct passengers to refer to the card of pamphlet that was given to each passenger or is located near each seat for further information concerning emergency procedures, including the donning of life jackets; location of other emergency equipment and emergency evacuation procedures.

3. Ensure that any passengers who board the vessel on a voyage **after** the initial safety announcement has been made, are also informed of the required safety information.

4. On a vessel on a voyage of **more** than **24 hours** duration, passengers shall be requested to don life jackets and go to the appropriate embarkation station during the safety orientation. If only a small number of passengers embark at a port after the original muster has been held, these passengers must be given the passenger safety orientation required by (1) or (2) of this section if another muster is not held.

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 2.7 **Page:** 1 of 3 **Issue Date:** **Author:**

Subject: **Fueling and Ventilation Requirements for Gas Powered Vessels**

I. General Description

This procedure details the requirements for ventilation of spaces containing machinery powered by, or fuel tanks for, gasoline.

II. References

46 CFR 182.460

III. Requirements

A space containing machinery powered by, or fuel tanks for, gasoline must have a ventilation system that consists of the following:

For an enclosed space:

- At least two natural ventilation supply ducts located at one end of the space and that extend to the lowest part of the space or to the bilge on each side of the space; and

- A mechanical exhaust system with at least two ventilation exhaust ducts located at the end of the space opposite from where the supply ducts are fitted. The supply ducts extend to the lowest part or bilge of the space on each side and are led to one or more powered exhaust blowers. The mechanical exhaust system must assure the air changes as noted in the following table depending upon the size of the space.

Size of space in cubic meters (feet)		Minutes per air change
Over	Not over	
0	14 (500)	2
14 (500)	28.50 (1000)	3
28.50 (1000)	43 (1500)	4
43 (1500)	.....	5

Partially enclosed space:

- At least one ventilation duct installed in the forward part of the space and one ventilation duct installed in the after part of the space, or as otherwise required by the cognizant OCMI.
- Ducts must have cowls or scoops.

Exhaust Blower Motor

- May not be installed in a duct
- Must be located (mounted) as high above the bilge as practicable
- Blower blades must be nonsparking with reference to their housings

In Case of Fire

- If a fixed gas fire extinguishing system is installed in a space, all powered exhaust blowers for the space must automatically shut down upon release of the extinguishing agent.

Exhaust Blower Switches

- Must be located outside of any space required to be ventilated by this section.
- Must be of the type interlocked with the starting switch and the ignition switch so that the blowers are started before the engine starter motor circuit or the engine ignition is energized.
- Display a red warning sign at the switch indicating that the blowers must be operated prior to starting the engines with sufficient time to ensure at least one complete change of air in the space served.

Ducts

- The area of the ventilation ducts must be sufficient to limit the air velocity to a maximum of 10 meters per second (2,000 feet per minute).
- A duct may be any shape, provided that in no case will one cross-sectional dimension exceed twice the other.
- A duct must be installed so that ordinary collection of water in the bilge will not block vapor flow.
- A duct must be made of rigid permanent construction which does not allow any appreciable vapor flow, except through normal openings. Also, it must be made of the same material as the hull or of noncombustible material.
- The duct must lead as directly as possible from its intake opening to its terminus and be securely fastened and supported.
- A supply duct must be installed at its intake opening with a cowl or scoop having a free area not less than twice the required duct area. When the cowl or scoop is screened, the mouth area must be increased to compensate for the area of the

screen wire. A cowl or scoop must be kept open at all times except when the weather is such as to endanger the vessel if the openings are not temporarily closed.

- Dampers may not be fitted in a supply duct.
- A duct opening may not be located where the natural flow of air is unduly obstructed, adjacent to possible sources of vapor ignition or where exhaust air may be taken into a supply duct.
- Provision must be made for closing all supply duct cowls or scoops and exhaust duct discharge openings for a space protected by a fixed gas extinguishing system.
- All closure devices must be readily available and mounted in the vicinity of the vent.

Signed	**Date**

UNDERWAY PROCEDURES

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 3.1 **Page:** 1 of 2 **Issue Date:** **Author:**

Subject: **Bridge Watchkeeping Arrangements**

I. General Description

This procedure describes the arrangements for navigating bridge watchkeeping when at sea and the allocation of responsibilities to shipboard personnel. This procedure demonstrates that the watchkeeping arrangements are adequate to ensure that sea passages are executed in a safe manner and in compliance with statutory requirements and relevant guidelines.

II. Responsibilities

The master is responsible for ensuring that the watchkeeping arrangements described in this procedure are followed by crew. He or she is also responsible for issuing specific instructions and night orders when he or she considers it appropriate to do so.

The Watchkeeping Lookout is responsible for keeping a proper lookout. The watchkeeping lookout reports to the master.

III. References

The requirements for the maintenance of a proper lookout are specified in Rule 5 of the International Regulations for Preventing Collisions at Sea, 1972, and Rule 5 of the Inland Navigational Rules Act of 1980 (33 U.S.C. 2005).

IV. Guidelines

Use the following guidelines to stand a proper lookout watch:

- Remain alert and give full attention to your assigned duty.
- Remain at your station until relieved.
- Do not engage in excessive conversation.

- Speak loudly and distinctly when making a report.
- If you cannot positively identify the object sighted, smelled, or heard, report the facts available at that time.
- Repeat your report until it is acknowledged by the master.
- When conditions impair your ability to see, smell or hear, report the condition so the master can take corrective action.
- Report everything you see (including floating material) even if you have to report it several times.
- Make sure you understand your duties or ask for more information.

V. Procedures

1. The watchkeeping arrangements when the vessel is at sea are as follows:

-	-
-	-
-	-

2. The master is in charge of the navigational watch at all times.
3. Relevant regulations and instructions for the maintenance of a safe navigational watch are to be observed at all times.
4. An example of a checklist on the next page can be used when relieved at the end of a watch. The checklist will ensure that the watchkeeping lookout fulfills the responsibility of making certain the voyage is executed safely and in compliance with relevant requirements.

Signed	**Date**

Change of Bridge Watchkeeping Officer (Example Checklist)

	Initials of officer being relieved Enter Date: _____						
1. Plotted position and present course.							
2. Navigation on next watch.							
3. Gyro/magnetic compass/repeaters.							
4. Movements of vessel in vicinity.							
5. Master's standing instructions.							
6. Expected change of present conditions, (e.g., tides and traffic).							
7. Expected change of weather conditions.							
8. Navigation lights.							
9. Look out.							
10. Smoke detectors.							
11. Radar and radar plots.							
12. Watch receiver and Navtext.							
13. Logbook entries.							
14. Course recorder checked.							
15. Officer to be relieved (init.).							
16. Relieving Officer (init.).							

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 3.2 **Page:** 1 of 1 **Issue Date:** **Author:**

Subject: **Other Watchkeeping Arrangements**

I. General Description

This procedure details the other watchkeeping duties that may be necessary during operations.

II. References

46 CFR 15.705

The requirements for the maintenance of a proper lookout are specified in Rule 5 of the International Regulations for Preventing Collisions at Sea, 1972, and Rule 5 of the Inland Navigational Rules Act of 1980 (33 U.S.C. 2005).

III. Guidelines

Use the following guidelines to stand a proper lookout watch:

- Remain alert and give full attention to your assigned duty.
- Remain at your station until relieved.
- Do not engage in excessive conversation.
- Speak loudly and distinctly when making a report.
- If you cannot positively identify the object sighted, smelled, or heard, report the facts available at that time.
- Repeat your report until it is acknowledged by the master.
- When conditions impair your ability to see, smell, or hear, report the condition so the master can take corrective action.
- Report everything you see including floating material, even if you have to report it several times.
- Make sure you understand your duties or ask for more information.

IV. Requirements

A proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances (e.g., fog or inclement weather) and conditions must be maintained aboard every vessel as to make a full appraisal of the situation and of the risk of collision at all times.

VI. Procedures

Positioning Lookouts:

- Choose a boat speed that enables lookouts to effectively and safely perform their duties.
- Position lookout so he or she can effectively and safely perform his or her duties under the operating conditions (e.g., restricted visibility, boat speed, sea state, weather).
- During periods of rain, sleet, and snow or when taking spray over the bow, select lookout positions that minimize impairment of vision.
- Select a stable location that will not place the lookout in danger of being blown or swept overboard.

Lookout Watch

Assign and station lookouts properly in order to be most effective. Lookouts must report to the master everything seen, smelled, or heard while the boat is underway that may endanger the boat. Some examples are:

- ships
- land
- obstructions
- lights
- buoys
- beacons
- reefs
- fog signals
- anything that could affect safe navigation

Night Lookout Watch

If the vessel carries overnight passengers the vessel must have a suitable number of watchmen patrol throughout the vessel during the nighttime, whether or not the vessel is underway, to guard against, and give alarm in case of, a person falling overboard, fire or other danger.

Helm Watch

The helm watch or helmsman is responsible for the following:

- safely steering the boat
- maintaining a course
- carrying out all helm commands given by the master.

Signed	**Date**

VESSEL OPERATIONAL PROCEDURE

DRAFT	**Policy no.:** 3.3 **Page:** 1 of 1 **Issue Date:** **Author:**

Subject: **Special Requirements for Bad Weather and Fog**

I. General Description

Bad weather and fog pose particular threats to the vessel and the safety of its crew and passengers. Vessels should not be operated beyond their operating limits and crew should not operate beyond their capabilities. This procedure deals with the preparations for operating in rough weather and reduced visibility.

II. Responsibilities

The master shall be familiar with the content of and make certain that the crew is familiar with the instructions containing the actions to be taken in the event of heavy weather. The master has overriding authority to make decisions with regard to safety. This includes making certain that all crew members are familiar with their duties during an emergency, and the issuance of clear instructions to the crew and passengers during an emergency.

III. References

46 CFR 185.510, 46 CFR 185.512

IV. Requirements

The master is required to be familiar with and to ensure that crew members are familiar with all emergency procedures. The emergency procedures for fog and bad weather should include at least the instructions below.

V. Procedures

Preparations for Rough Weather

1. Secure all hatches; close all ports and windows.
2. Pump bilges dry and repeat as required.

3. Secure all loose gear; put away small items and lash down the larger ones.
4. Break out life preservers and have everyone on board wear them *before* the situation worsens.
5. Break out emergency gear that you might need – hand pumps or bailers, sea anchor or drogue, etc.
6. Check position if possible and update the plot on your chart.
7. Make plans for altering course to sheltered waters, if necessary.
8. Reassure your crew and passengers; instruct them in what to do and what not to do.

Operating in any conditions where visibility is reduced for any reason:

1. Maintain a speed that will enable you to take proper action to avoid a collision and stop within a distance appropriate to the prevailing circumstances and conditions.
2. Display the proper navigation lights and sound appropriate sound signals.
3. Employ all available navigation aids.
4. Station a lookout well forward and away from the engine sounds and lights, to listen and look for other signals.
5. Watch for aids to navigation which do not have audible sound devices.
6. Lay charts with the main course, time, and speed plotted on them.
7. Plot navigational fixes, record times, and positions regularly.
8. Anchor to await better visibility, especially if transiting congested areas or narrow channels.

Signed	**Date**

Chapter 8
Emergency Preparedness

Policy

It is this company's policy to ensure that the emergency preparedness of the company and of each vessel is in accordance with 33 CFR 96.250(h) and the ISM Code which requires written procedures for emergency preparedness.

Policy Implementation

The company has established procedures within this chapter to identify, describe, and respond to possible emergency shipboard situations.

The company has established programs for emergency drills and exercises within this chapter.

The company has prepared measures for ensuring that the company is able to respond at any time to hazards, accidents, and emergency situations involving its vessel(s).

References

Instructions

Fire Fighting Drills and Training

General

Conducting fire drills and training on a regular schedule is necessary for the continued safety of the passengers, crew, and the vessel. Fire drills and training ensure that crew members are familiar with their duties to enable them to perform effectively in an actual emergency.

References

46 CFR 185.524

Requirements

The Master is responsible for conducting sufficient fire drills to ensure each crew member is familiar with his or her duties in case of a fire. A fire drill shall be conducted at least once every 3 months.

Procedures

1. During the fire drill:
    - summon passengers on a vessel on an overnight voyage to areas of refuge or embarkation stations;
    - summon the crew to report to assigned stations and to prepare for and demonstrate assigned duties; and
    - instruct in the use of fire extinguishers and any other fire fighting equipment on board.
2. Conduct each fire drill, as far as practicable, as if there were an actual emergency.
3. Log or document all fire fighting drills and training for review by the Coast Guard upon request. Include the following information in the drill entry:
    - Date of the drill and training.
    - General description of the drill scenario and training topics.
4. At the end of the drill, hold a critique to discuss what was done right, what was done wrong, and how the procedures could be done better.

Abandon Ship and Man Overboard Drills and Training

General

Conducting abandon ship and man overboard drills and training on a regular schedule is necessary for the continued safety of the passengers and crew. Abandon ship and man overboard drills and training ensure that crew members are familiar with their duties to enable them to perform effectively in an actual emergency.

References

46 CFR 185.512, 185.520, 180.210

Requirements

The Master is responsible for conducting sufficient drills and giving sufficient instructions to make sure that each crew member is familiar with his or her duties during emergencies that necessitate abandoning ship or the recovery of persons who have fallen overboard. An abandon ship and man overboard drill must be conducted at least once every 3 months.

Procedures

1. During the abandon ship/man overboard drill:
    - summon the crew to report to assigned stations and prepare for and demonstrate assigned duties;
    - summon passengers on a vessel on an overnight voyage to muster stations or embarkation stations and ensure that they are made aware of how the order to abandon ship will be given;
    - check that life jackets are correctly donned;
    - operate any davits used for launching liferafts; and
    - give instructions on the automatic and manual deployment of survival craft.
2. Conduct each abandon ship drill, as far as practicable, as if there were an actual emergency.
3. Launch each rescue boat required in accordance with CFR 180.210 with its assigned crew aboard and maneuver in the water as if during an actual man overboard situation:
    - once each month, if reasonable and practicable; but
    - at least once within 3 months before the vessel gets underway with passengers.
    - onboard training in the use of davit launched liferafts must take place at intervals of not more than 3 months on a vessel with a davit launched liferaft.
4. At the end of the drill, hold a critique to discuss what was done right, what was done wrong,, and how the procedures could be done better.

Discharge of Oil, Garbage, and Response to Pollution

General

This procedure deals with the regulations as to the discharge of oil into the sea and the response actions to take when in the event of an accidental discharge to report the incident and attempt to lessen the pollution of the marine environment.

Responsibilities

It is the responsibility of the master or the person in charge to report the particulars of a discharge of oil or noxious liquid without delay and to the fullest extent possible. If the vessel becomes abandoned or unobtainable, the owner, charterer, manager of the vessel or their agent shall assume the responsibility of reporting the incident.

References

MARPOL 73/78 Regulation 26, Protocol I

Requirements

A report is required when an incident involves a discharge of oil, or noxious liquid substances in excess of the quantity or instantaneous rate permitted (Federal Water Pollution Control Act, section 402).

Procedures

The report must be made without delay using the fastest telecommunications channels available with the highest possible priority to the nearest coastal State containing the following information:

- identity of vessel(s) involved
- time, type, and location of incident
- condition of the ship (if necessary)
- quantity and type of harmful substance involved
- whether substance floated or sank
- whether loss is continuing
- cause of incident
- name, address, fax, and phone number of the ship's owner and representative
- actions being taken with regard to the discharge and movement of the vessel
- assistance and salvage measures which have been requested or provided by others

Comply with requests from affected States for additional information.

	In Port	**While Underway**
When to Report:		
Information Required:		
Whom to Contact:		
Steps to Control a Discharge		

Fire

General

Any vessel can fall victim to tragedy when proper prevention measures are not followed correctly and precisely. This procedure details the actions to take if a fire occurs on board the vessel.

References

46 CFR 185.524

Requirements

Preventative Actions

In dealing with fire on your vessel, the single most important consideration is prevention. During vessel and equipment checks, all systems must be inspected including fuel, oil system, and wiring. Check for abrasions cracked wiring, or pinholes in oil and fuel lines. Any discrepancy must be corrected at the time it is discovered (see Discrepancy Report, Chapter 10). The following are also good fire prevention measures to be practiced:

- Keep oil and grease out of bilges.
- Cleanup any spilled fuel or lube oil immediately and properly dispose of it ashore.
- Stow cleaning materials off the boat.
- Keep all areas free of waste material.
- Use proper containers for flammable liquids.
- Be alert for suspicious odors and fumes, and vent all spaces thoroughly before starting engine(s).

Procedures

Reminder ☝

Life comes before property!

Safety Rules

- Immediately upon discovering a fire, sound an alarm, and summon help.
- Attempt to account for all persons.
- Never pass a fire to get to an extinguisher.
- If you must enter a compartment to combat a fire, keep an escape path open. Never let a fire get between you and a door, hatch or scuttle.

- If you enter a compartment and fail to extinguish a fire with a portable fire extinguisher, **get out**. Then close the door, hatch, or scuttle to confine the fire.

Fire Fighting Procedures

1. Shut off all engines, generators, and ventilation systems.
2. Recover and evacuate anyone injured.
3. Locate the fire and evaluate the extent of the fire.
4. Cut off air supply to fire–close items such as hatches, ports, doors, ventilators and louvers, and shut off ventilation system.
5. Cut off electrical system supplying affected compartment if possible.
6. If safe, immediately use portable fire extinguishers at base of flames for flammable liquid or grease fires or water for fires in ordinary combustible materials. Do not use water on electrical fires.
7. If fire is in machinery spaces, shut off fuel supply and ventilation and activate fixed extinguishing system if installed.
8. Maneuver vessel to minimize effect of wind on fire.
9. If unable to control fire, immediately notify the Coast Guard and other craft in the vicinity by radiotelephone.
10. Move passengers away from fire, have them put on life jackets and if necessary, prepare to abandon the vessel.

Flooding and Flood Control

General

Vessels sometimes become damaged in groundings, collisions, or from striking submerged objects. These mishaps may result in a holed, cracked, or weakened hull. If the hull has been damaged to the extent that water is entering the interior of the boat, steps must be taken to ensure passenger safety, identify the source of the leak, and keep the boat afloat. This procedure details the methods to control flooding of a vessel.

References

46 CFR 182.500-530

ABYC Project H-22, "DC Electric Bilge Pumps Operating Under 50 Volts"

Requirements

Subpart E -- Bilge and Ballast Systems

182.500 General.

(a) A vessel must be provided with a satisfactory arrangement for draining any watertight compartment, other than small buoyancy compartments, under all practicable conditions. Sluice valves are not permitted in watertight bulkheads.

(b) A vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers may meet the requirements of ABYC Project H-22, "DC Electric Bilge Pumps Operating Under 50 Volts," in lieu of the requirements of this subpart, provided that each watertight compartment, other than small buoyancy compartments and the compartment forward of the collision bulkhead, is provided with a means for dewatering.

(c) Special consideration may be given to vessels, such as high speed craft, which have a high degree of subdivision and utilize numerous small buoyancy compartments. Where the probability of flooding of the space is limited to external hull damage, compartment drainage may be omitted provided it can be shown by stability calculations, submitted to the cognizant OCMI, that the safety of the vessel will not be impaired.

182.510 Bilge piping system.

(a) A vessel of at least 7.9 meters (26 feet) in length must be provided with individual bilge lines and bilge suctions for each watertight compartment, except that the space forward of the collision bulkhead need not be fitted with a bilge suction line when the arrangement of the vessel is such that ordinary leakage may be removed from this compartment by the use of a hand portable bilge pump or other equipment, and such equipment is provided.

(b) A bilge pipe in a vessel of not more than 19.8 meters (65 feet) in length must be not less than 25 millimeters (1 inch) nominal pipe size. A bilge pipe in a vessel of more than 19.8 meters (65 feet) in length must be not less than 40 millimeters (1.5 inches) nominal pipe

size. A bilge suction must be fitted with a suitable strainer having an open area not less than three times the area of the bilge pipe.

(c) Except when individual pumps are provided for separate spaces, individual bilge suction lines must be led to a central control point or manifold and provided with a stop valve at the control point or manifold and a check valve at some accessible point in the bilge line. A stop-check valve located at a control point or manifold will meet the requirements for both a stop valve and a check valve.

(d) A bilge pipe piercing the collision bulkhead must be fitted with a screw-down valve located on the forward side of the collision bulkhead and operable from the weather deck, or, if it is readily accessible under service conditions, a screw-down valve without a reach rod may be fitted to the bilge line on the after side of the collision bulkhead.

182.520 Bilge pumps.

(a) A vessel must be provided with bilge pumps in accordance with the following table. A second power pump is an acceptable alternative to a hand pump if it is supplied by a source of power independent of the first power bilge pump. Individual power pumps used for separate spaces are to be controlled from a central control point and must have a light or other visual means at the control point to indicate operation.

Number of Passengers	**Length of Vessel**	**Bilge Pumps Required**	**Min. Capacity required per pump ltrs/min. (gal/min.)**
Any number	More than 19.8 m (65 ft)	2 fixed power pumps	190 LPM (50 GPM)
More than 49 passengers and all ferry vessels	Not more than 19.8 m (65 ft)	1 fixed power pump and 1 portable hand pump	95 LPM (25GPM) 38 LPM (10 GPM)
Not more than 49 passengers (Other than ferry vessels)	7.9 m (26 ft) up to 19.8 (65 ft)	1 fixed power pump and 1 portable hand pump or 1 fixed hand pump and 1 portable hand pump	38 LPM (10 GPM) 38 LPM (10 GPM) 19 LPM (5 GPM)
	Less than 7.9 m (26 ft)	1 portable hand pump	19 LPM (5 GPM)

(b) A portable hand bilge pump must be:

(1) Capable of pumping water, but not necessarily simultaneously, from all watertight compartments; and

(2) Provided with suitable suction and discharge hoses capable of reaching the bilges of each watertight compartment.

(c) Each fixed power bilge pump must be self priming. It may be driven off the main engine or other source of power. It must be permanently connected to the bilge manifold and may also be connected to the fire main. If of sufficient capacity, a power bilge pump may also serve as a fire pump.

(d) Where two fixed power bilge pumps are installed, they must be driven by different sources of power. If one pump is driven off the main engine in a single propulsion engine installation, the other must be independently driven. In a twin propulsion engine installation, each pump may be driven off a different propulsion engine.

(e) A submersible electric bilge pump may be used as a power bilge pump required by Table 182.520(a) only on a vessel of not more than 19.8 meters (65 feet) in length carrying not more than 49 passengers, other than a ferry, provided that:

(1) The pump is listed by Underwriters' Laboratories Inc. or another independent laboratory;

(2) The pump is used to dewater not more than one watertight compartment;

(3) The pump is permanently mounted;

(4) The pump is equipped with a strainer that can be readily inspected and cleaned without removal;

(5) The pump discharge line is suitably supported;

(6) The opening in the hull for the pump discharge is placed as high above the waterline as possible;

(7) A positive shutoff valve is installed at the hull penetration; and

(8) The capacity of the electrical system, including wiring, and size and number of batteries, is designed to allow all bilge pumps to be operated simultaneously.

(f) A flexible tube or hose may be used instead of fixed pipe for the discharge line of a submersible electric bilge pump provided the hose or tube does not penetrate any required watertight bulkheads and is:

(1) Of good quality and of substantial construction, suitable for the intended use; and

(2) Highly resistant to salt water, petroleum oil, heat, and vibration.

(g) If a fixed hand pump is used to comply with Table 182.520(a), it must be permanently connected to the bilge system.

(h) On a vessel of not more than 19.8 meters (65 feet) in length, a power driven fire pump required by 181.300 of this chapter may serve as a fixed power bilge pump required by this subpart, provided it has the minimum flow rate required by Table 182.520(a).

(i) On a vessel of more than 19.8 meters (65 feet) in length, a power driven fire pump required by 181.300 of this subchapter may serve as one of the two fixed power bilge pumps required by this subpart, provided:

(1) The bilge and fire pump systems are interconnected;

(2) The dedicated bilge pump is capable of pumping the bilges at the same time the fire/bilge pump charges the firemain; and

(3) Stop valves and check valves are installed in the piping to isolate the systems during simultaneous operation and prevent possible flooding through the bilge system.

(j) A catamaran vessel must be equipped with bilge pumps for each hull, as if each hull is a separate vessel, in accordance with Table 182.520(a), except where:

(1) One dedicated pump is located in each hull;

(2) Each dedicated pump is driven by an independent source of power; and

(3) The bilge system is permanently cross connected between hulls.

182.530 Bilge high level alarms**.**

(a) On a vessel of at least 7.9 meters (26 feet) in length, a visual and audible alarm must be provided at the operating station to indicate a high water level in each of the following normally unmanned spaces:

(1) A space with a through-hull fitting below the deepest load waterline, such as a lazarette;

(2) A machinery space bilge, bilge well, shaft alley bilge, or other spaces subject to flooding from sea water piping within the space; and

(3) A space with a non-watertight closure, such as a space with a non-watertight hatch on the main deck.

(b) Vessels constructed of wood must, in addition to paragraph (a), provide bilge level alarms in all watertight compartments except small buoyancy chambers.

(c) A visual indicator must be provided at the operating station to indicate when any automatic bilge pump is operating.

Procedures

Standard Procedure

At the first suspicion of damage that might cause serious leaking, switch on all electric bilge pumps *before* investigating. If inspection shows your suspicions to be groundless, switch them off again. They will not be damaged by a brief run while dry.

1. Close all watertight and weathertight doors, hatches, and airports to prevent taking water aboard or further flooding in the vessel.
2. Keep bilges dry to prevent loss of stability due to water in bilges. Use power driven bilge pump, hand pump, and buckets to dewater.

3. Align fire pumps to use as bilge pump, if possible.
4. Check all intake and discharge lines, which penetrate the hull, for leakage.
5. Passengers must remain seated and evenly distributed.
6. Passengers must don life jackets if conditions worsen, the vessel is about to cross a hazardous bar. or when otherwise instructed by the master.
7. Never abandon the vessel unless actually forced to do so.
8. If assistance is needed, follow the procedures on the emergency broadcast placard posted by the radiotelephone.
9. Prepare survival craft (lifefloats, inflatable rafts, inflatable buoyant apparatus, and boats) for launching.

Emergency Pumping

If conditions warrant, follow these procedures:

1. Close the engine water intake seacock.
2. Disconnect the water intake line, making sure there is enough water in the bilge to cover the intake well.
3. Start the engine and *check* to be sure it is discharging water through the wet exhaust or other discharge line.
4. Assign someone to frequently check the intake screen and be sure it is not obstructed.
5. Vary the engine speed as required.

Caution!

There must be enough water already in the bilge and flowing in to meet the engine's needs for cooling.

Take precautions to keep bilge dirt and trash from being sucked into the engine's intake. To lose power if the engine overheats might be disastrous.

Emergency Repairs

Plugging Holes

The simplest method for stopping a small hole in wooden or metal hulls is to insert a plug or plugs. Plugs are usually made of a soft wood such as pine or fir. Use plugs individually. If they fit the hole or use them in combination with other materials to make a better fit. Wrapping cloth around each plug before inserting them in the hole will help to keep the plug in place.

Large holes are generally too difficult to plug. Use a patch to reduce the flow of water through a large hole, if an attempt is made.

Fiberglass may be the most difficult of all hull materials to plug. Wooden conical plugs driven into the hole may do nothing more than cause further splitting and cracking and add to an already difficult situation. The best method of plugging a hole in fiberglass is to shove some pliable type

of material into it such as a rag, shirt, or piece of canvas. A PFD (Personal Flotation Device) or a blanket may also work well.

Patching Holes

Patching holes below the waterline is usually a difficult task because of the pressure exerted by the water and the inaccessibility to the holed area. Patch small holes from the inside. Place some type of material over the hole and hold it in place with another object.

Example

If the boat were holed in the bottom, place the PFD or seat cushion over the hole and hold it in place with a gas can, cooler, or tool box.

Large holes below the waterline are extremely difficult to patch. The pressure of the water flowing through the hole will not usually allow a patch to be installed from the inside. If a collision mat (a large piece of canvas or vinyl) is available, use it to patch a large hole.

1. Tie four lines to the corners of the patch.
2. Position the patch by dripping the patch over the bow.
3. Have someone walk down each side of the boat, two of the lines for each person.
4. Slide the patch along the bottom of the boat.
5. Secure the four lines topside once the patch covers the hole. The pressure of the water against the patch will also help to hold it in place.

Box patches are effective, even on holes that have jagged edges protruding inward. The box patch is usually a prefabricated box, which is held in place with screws, nails, or it may be wedged in place with anything available. Put a gasket (anything available) between the box and the hull to make a good seal and to prevent the box from shifting.

Holes above the waterline may be more dangerous than they appear. As the boat rolls, they admit water into the boat above the center of gravity. This water reduces the stability of the boat. Use plugs or patches on the inside or outside of the hull to cover these type of holes. If available, a pillow or cushion that has a small hole punched in the center may be used.

1. Place the cushion over the holed area from the outside and back it with a board of the same approximate size. The board should also have a small hole through the center.
2. Pass a line through the board and cushion and knot the end of the line outside the board.
3. Secure the entire patch by attaching the other end of the line to something firm inside the boat.

Patching Cracks

To patch a crack in the hull, use the following procedure:

1. Stuff the crack with something pliable, such as a rag or line.
2. Place a piece of canvas or rubber over the crack to serve as a gasket.

3. Back the patch with a solid object such as a piece of plywood, panel door or similar material.
4. Use nails, screws or wedges to hold the patch in place.

To prevent the crack from traveling, especially in fiberglass, drill holes at each end of the crack. These holes will relieve the pressure at the ends of the crack, permitting the hull to flex without extending the crack.

Man Overboard

General

Even the best of swimmers can become disoriented when unexpectedly falling into the water. Immediate action is of primary importance when a person falls overboard. Every second counts, particularly in heavy or cold weather. This procedure addresses man overboard recovery procedures, as well as water survival skills. Lives depend on every crew member performing these procedures competently and effectively.

References

46 CFR 185.510

Responsibilities/Requirements

185.510 Emergency Instructions.

The master and crew of a vessel will be familiar with the content of and have mounted at the operating station, emergency instructions containing the actions to be taken in the event of fire, flooding, heavy weather, or **man overboard** conditions

Procedures

In the casse of a man overboard enact the following procedures.

1. Throw a ring buoy overboard, as close to the person overboard as possible.
2. Post a lookout to keep the person overboard in sight.
3. Launch a rescue boat and maneuver to pick up the person overboard or maneuver the vessel to pick up the person overboard.
4. Have a crew member put on a lifejacket, attach a safety line, and stand by to jump into the water to assist the person overboard if necessary.
5. Notify the Coast Guard and other vessels in vicinity by radiotelephone if the person is not immediately located.
6. Continue the search until released by Coast Guard.

Water Survival Skills

If a crew member enters or ends up in the water due to an emergency, survival procedures should be pre-planned. Preplanning increases the chances for a successful rescue are increased. Never forget that a PFD is the best insurance for survival.

The length of time a person can stay alive in cold water depends on the temperature of the water, the physical condition of the survivor, and the action taken by the survivor. The following figure

shows the relationship between an uninjured victim's activity, water temperature, and estimated survival time. Swimming typically reduces a person's chance of survival due to more rapid loss of body heat.

Survival Times vs. Water Temperatures

How Hypothermia Affects Most Adults		
Water Temperature °F(°C)	**Exhaustion or Unconsciousness**	**Expected Time of Survival**
32.5 (0.3)	Under 15 min.	Under 15 to 45 min.
32.5 to 40 (0.3 to 4.4)	15 to 30 min.	30 to 90 min.
40 to 50 (4.4 to 10)	30 to 60 min.	1 to 3 hrs.
50 to 60 (10 to 15.6)	1 to 2 hrs.	1 to 6 hrs.
60 to 70 (15.6 to 21)	2 to 7 hrs.	2 to 40 hrs.
70 to 80 (21 to 26.7)	2 to 12 hrs.	3 hrs. to indefinite
Over 80 (26.7)	Indefinite	Indefinite

There are water survival skills that should be utilized to increase the chances for surviving cold water immersion including:

1. Immediately upon entering the water, become oriented to the surrounding area. Try to locate your sinking boat, floating objects, and other survivors.
2. Try to board a lifeboat, raft, or other floating platform as soon as possible to shorten the immersion time. Body heat is lost many times faster in the water than in the air. Since the effectiveness of the insulation worn is seriously reduced by being water soaked, it is important to be shielded from wind to avoid a wind-chill effect. If able to climb aboard a survival craft, use a canvas cover or tarpaulin as a shield from cold. Huddling close to the other occupants in the craft will also conserve body heat.
3. While afloat in the water, do not attempt to swim unless it is necessary to reach a fellow survivor or a floating object which can be grasped or climbed onto.

   Unnecessary swimming will pump out any warm water between the body and the layers of clothing and will increase the rate of body-heat loss. Also, unnecessary movements of arms and legs send warm blood from the inner core to the outer layer of the body resulting in rapid heat loss.
4. The body position assumed in the water is very important in conserving heat. Float as still as possible with legs together, elbows close to your side and arms folded across the front of your PFD. This is called the HELP (Heat Escape Lessening Position) and minimizes exposure of the body surface to the cold water.

   Another heat conserving position is to huddle closely to others in the water making as much body contact as possible.
5. Keep a positive attitude about your survival and rescue. This will extend your survival time until rescue comes. A will to live does make a difference.

First Aid

General

This procedure provides basic first aid and transporting information for injuries encountered in the marine environment. First aid is considered doing what must be done before expert help is available.

Proper knowledge and skill in first aid are essential. Effective and professional response to an emergency situation may be the difference between life and death or temporary injury and disability of the victim.

Responsibilities/Requirements

The master should be able to care for minor injuries and illnesses of the crew and passengers. The vessel should have the required first aid supplies and equipment, plus a manual of instructions for their use. The master should have had basic first aid instruction and CPR training, such as given by the Red Cross.

Procedures

Assessing the Situation

1. Stop and assess the overall condition of the victim.
2. Determine whether or not assisting the patient with the resources at hand is possible or if further help is required.

Warning 

> No one who is not educated and properly qualified to practice medicine should attempt to act as a doctor.

3. When more qualified care is required for serious injury, seek assistance immediately. Call for help and activate the local Emergency Medical Services (EMS) system such as 911, or local fire/rescue squad.

Emergency Contact Numbers

_____	_____
_____	_____
_____	_____

Note the following information during the initial assessment:

- Number of patients.
- General condition of patient(s).
- Type of injury.
- Level of consciousness of patient(s).
- Monitoring for causes or symptoms of shock.

Chapter 9

Reporting Procedures

Policy

It is this company's policy to ensure that non-conformities, accidents, hazardous situations and discharges of oil and garbage are reported, investigated and analyzed in a way that improves safety and pollution prevention as required by 33 CFR 96.250(i) and the ISM Code. It is also company policy to ensure that corrective actions are implemented and verified.

Policy Implementation

Reporting and corrective action procedures have been established in this chapter to handle hazardous conditions, accidents, discharge of oils and garbage and non-conformities found during the course of an internal audit. Reports and corrections should be made in a timely manner.

The company ensures that reporting procedures are established in the case of these events, and that all crew members know of the reporting procedures. Records of these reports and actions should be kept aboard the vessel and held by a designated person ashore. The responsibility for dealing with the reports should be established.

References

Non-Conformity Report

Report of Marine Accident, Injury or Death

Report of Hazardous Condition

National Response Center Hardcopy Drill Report

Non-Conformity Reporting

General

This procedure describes the actions necessary to report non-conformities to the SMS not found during an audit.

Definition

Non-conformities are discrepancies between what is present and the requirements of the SMS.

Requirements

Non-conformities identified by members at times other than during an internal audit or Coast Guard audit should be reported using a Non-Conformity report form. An example of this form can be found on the next page. Procedures should ensure that non-conformities are reported promptly and that the time period for corrections is defined.

Procedures

The individual who discovers the non-conformity should complete a non-conformity report form. Copies of this form will be located on board the vessel and at the shore-based company office. A non-conformity report can be used at any time by any crew member who identifies a discrepancy which does not meet with the requirements of the SMS.

Example Non-Conformity Report

Name of Person Reporting the Non-Conformity:	Date of Report:
Department/Vessel:	
State the nature of the non-conformity: What part of the ISM does this non-conformity refer to? What part of the SMS does this refer to?	
What is the proposed corrective action(s): Immediate Action(s):	
Name(s) of Person(s) to Correct the Non-Conformity:	Date for Completion:
Further Action(s):	
Name of Person to Correct the Non-Conformity:	Date for Completion:
Verification of Corrective Action: Follow Up Details (Explain how the corrective action was verified.): Corrective Action(s) Closed Out:	
Signature(s)	Person(s) Verifying Corrective Action

Accident Reporting

General

This procedure describes the actions necessary to report a marine casualty involving the safety of the passengers, crew, vessel, and the environment.

Definitions

A *Marine casualty* consists of:

- an unintended grounding or strike of (allision with) a bridge;
- an intended grounding or strike of a bridge, that creates a hazard to navigation, the environment, or the safety of the vessel or meets any of the following criterion;
- a loss of main propulsion or primary steering, or any associated component or control system the maneuverability of the vessel;
- an occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service;
- a person dying;
- a person being injured and requiring medical treatment beyond first aid;
- a person being injured while employed on board a vessel in commercial service, which renders the individual unfit to perform his or her routine duties; or
- damage to the vessel and other property totaling more than $25,000.

References

46 CFR 185 Subpart B

Forms:

CG-2692,	Report of Marine Accident, Injury or Death
CG-2692A,	Barge Addendum
CG-2692B,	Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident

Requirements

The owner, agent, master, or person in charge of a vessel involved in a marine casualty shall:

- Immediately after addressing the resultant safety concern(s), notify the nearest Marine Safety Office, Marine Inspection Office, or Coast Guard Group Office; and
- within 5 days, file a written report (Form CG-2692, Report of Marine Accident, Injury, or Death, supplemented as necessary by appended Forms CG-2692A, Barge Addendum, and

CG-2692B, Report of Required Chemical Drug and Alcohol Testing Following a Serious Marine Incident), with the Coast Guard Marine Safety Office or Marine Inspection Office.

If the marine casualty involves a hazardous condition immediately notify the Captain of the Port of the port of destination and the Captain of the Port of the port or place in which the vessel was located when the hazardous condition occurred.

Procedures

1. Immediately notify the nearest U.S. Coast Guard--
   - Marine Safety Office,
   - Marine Inspection Office, or
   - Group Office.
     __(____)_____
     __(____)_____
     __(____)_____
2. Complete Form CG-2692 and submit within 5 days.
3. Blank forms (Form CG-2692) are available on board the vessel and in the office.
4. Determine if supplemental Forms CG-2692A and/or CG-2692B are required and complete form(s).
5. Make sure to sign and date the form(s).
6. Submit completed form(s) (retain a copy for company records) to the Coast Guard Marine Safety Office, or Marine Inspection Office.
7. Submit completed form(s) within 5 days of the occurrence.
8. [Additional company procedure]
9. [Additional company procedure]

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
CG-2692 (Rev. 6-87)

REPORT OF MARINE ACCIDENT, INJURY OR DEATH

RCS No. G-MMI-4017
UNIT CASE NUMBER

SECTION I. GENERAL INFORMATION

1. Name of Vessel or Facility	2. Official No.	3. Nationality	4. Call Sign	5. USCG Certificate of Inspection issued at:

6. Type *(Towing, Freight, Fish, Drill, etc.)*	7. Length	8. Gross Tons	9. Year Built	10. Propulsion (Steam, diesel, gas, turbine...)

11. Hull Material (*Steel, Wood...*)	12. Draft (*Ft. - in.*) FWD	AFT.	13. If Vessel Classed, By Whom: (*ABS LLOYDS, DNV,* BV, etc.)	14. Date (*of occurrence*)	15. TIME (*Local*)

16. Location (See Instruction No. 10A)	17. Estimated Loss of Damage TO:
18. Name, Address and Telephone No. Of Operating Co.	VESSEL _____ CARGO _____ OTHER _____

19. Name of Master or Person in Charge	USCG License ☐ YES ☐ NO	20. Name of Pilot	USCG License ☐ YES ☐ NO	State License ☐ YES ☐ NO

19a. Street Address (City, State, Zip Code)	19b. Telephone Number	20a. Street Address (City, State, Zip Code)	20b. Telephone Number

21. Casualty Elements (*Check as many as needed and explain in Block 44.)*

- NO. OF PERSONS ON BOARD _____
- ☐ DEATH - HOW MANY? _____
- ☐ MISSING - HOW MANY? _____
- ☐ INJURED - HOW MANY? _____
- ☐ HAZARDOUS MATERIAL RELEASED OR INVOLVED (*Identify Substance and amount in Block 44.*)
- ☐ OIL SPILL - ESTIMATE AMOUNT: _____
- ☐ CARGO CONTAINER LOST/DAMAGED
- ☐ COLLISION (*Identify other vessel or object in Block 44.*)
- ☐ GROUNDING ☐ WAKE DAMAGE
- ☐ FLOODING; SWAMPING WITHOUT SINKING
- ☐ CAPSIZING (*with or without sinking*)
- ☐ FOUNDERING OR SINKING
- ☐ HEAVY WEATHER DAMAGE
- ☐ FIRE
- ☐ EXPLOSION
- ☐ COMMERCIAL DIVING CASUALTY
- ☐ ICE DAMAGE
- ☐ DAMAGE TO AIDS TO NAVIGATION
- ☐ STEERING FAILURE
- ☐ MACHINERY OR EQUIPMENT FAILURE
- ☐ ELECTRICAL FAILURE
- ☐ STRUCTURAL FAILURE
- ☐ FIREFIGHTING OR EMERGENCY EQUIPMENT FAILED OR INADEQUATE *Describe in Block 44.*)
- ☐ LIFESAVING EQUIPMENT FAILED OR INADEQUATE (*Describe in Block 44.*)
- ☐ BLOW OUT (*Petroleum exploration/production*)
- ☐ ALCOHOL INVOLVEMENT (*Describe in Block 44.*)
- ☐ DRUG INVOLVEMENT (*Describe in Block 44.*)
- ☐ OTHER (*Describe in Block 44.*)

22. Conditions

A. Sea or River Conditions (*wave height, river stage, etc.*)	B. WEATHER	C. TIME	D. VISIBILITY	E. DISTANCE (*miles of visibility*)	F. AIR TEMPERATURE (F)	G. WIND SPEED and DIRECTION	H. CURRENT SPEED and DIRECTION
	☐ CLEAR ☐ RAIN ☐ SNOW ☐ FOG ☐ OTHER (*Specify*) _____	☐ DAYLIGHT ☐ TWILIGHT ☐ NIGHT	☐ GOOD ☐ FAIR ☐ POOR	_____	_____	_____ _____	_____ _____

23. Navigation Information	SPEED _____	24. Last Port _____ Where Bound	24a. Time and Date of Departure
☐ MOORED, DOCKED, OR FIXED ☐ ANCHORED ☐ UNDERWAY OR DRIFTING	AND COURSE _____		

25. FOR TOWING ONLY	25a. NUMBER OF VESSELS TOWED	Empty	Loaded	Total	25b. TOTAL H.P. OF TOWING UNITS	25c. MAXIMUM SIZE OF TOW WITH TOW-BOAT (S)	Length	Width	25d. *(Describe in Block 44)*
									☐ PUSHING AHEAD ☐ TOWING ASTERN ☐ TOWING ALONGSIDE ☐ MORE THAN ONE TOW-BOAT ON TOW

SECTION II. BARGE INFORMATION

26 Name	26a. Official Number	26b. Type	26c. Length	26d. Gross Tons	26e. USCG Certificate of Inspection issued at:

26f. Year Built	26g. ☐ SINGLE SKIN ☐ DOUBLE	26h. Draft FWD	AFT	26i. Operating Company

26j. Damage Amount	BARGE _____ CARGO _____ OTHER _____	26k. Describe Damage to Barge

SECTION III. PERSONNEL ACCIDENT INFORMATION

27. Person Involved	27a. Name *(Last, First, Middle Name)*	27c. Status
☐ MALE or ☐ FEMALE ☐ DEAD ☐ INJURED ☐ MISSING	27b. Address *(City, State, Zip Code)*	☐ Crew ☐ Passenger ☐ Other

28. Birth Date	29. Telephone No.	30. Job Position	31. (Check here if off duty) ☐

32. Employer - (if different from Block 18, fill in Name, Address, Telephone No.)

33. Person's Time	YEAR(S)	MONTH(S)
A. IN THIS INDUSTRY		
B. WITH THIS COMPANY		
C. IN PRESENT JOB OR POSITION		
D. ON PRESENT VESSEL/FACILITY		
E. HOURS ON DUTY WHEN ACCIDENT OCCURRED		

34. Industry of Employer *(Towing, Fishing, Shipping, Crew Supply, Drilling, etc.)*

35. Was the Injured Person Incapacitated 72 Hours or More?

36. Date of Death

37. Activity of Person at Time of Accident

38. Specific Location of Accident on Vessel/Facility

39. Type of Accident	40. Resulting Injury *(Cut, Bruise, Fracture, Burn, etc.)*
41. Part of Body Injured	42. Equipment Involved in Accident

43. Specific Object, Part of the Equipment in block 42, or Substance *(Chemical, Solvent, etc.)* that directly produced the injury.

SECTION IV. DESCRIPTION OF CASUALTY

44. Describe how the accident occurred, damage, information on alcohol/drug involvement and recommendations for corrective safety measures. (*See instructions and attach additional sheets if necessary.)*

45. Witness *(Name, Address, Telephone No.)*

46. Witness (Name, Address, Telephone No.)

SECTION V. PERSON MAKING THIS REPORT

47. Name (PRINT) *(Last, First, Middle*)	47b. Address *(City, State, Zip Code*)	47c. Title
47a. Signature		47d. Telephone No. 47e. Date

FOR COAST GUARD USE ONLY	REPORTING OFFICE

APPARENT CAUSE

CASUALTY CODE A B C	INVESTIGATOR	DATE	APPROVED BY *(Name*)	DATE

Hazardous Condition Reporting

General

This procedure deals with the identification and reporting of hazardous occurrences on board. It is designed to provide details of events, which, under a different set of circumstances, could have resulted in injury, damage to property or pollution of the marine environment.

Definition

"**Hazardous condition**" means any condition that could conceivably have an adverse affect on the safety of any vessel, bridge, structure or shore area or the environmental quality of any port, harbor, or navigable water of the United States. This condition could include but is not limited to:

- fire
- explosion
- grounding
- leaking
- damage
- illness of a person on board
- manning shortage

Requirements

All hazardous conditions, as defined above, on board the vessel, must be immediately reported by the owner, master, agent or person in charge to:

- the Captain of the Port (COTP) of the port or place of destination, and
- the COTP of the port or place in which the vessel is located of the hazardous condition.

Procedures

1. Use a report form similar to the sample on the following page to collect the pertinent information.
2. Contact the local Coast Guard using any means.
3. Report the information collected in the hazardous condition report form to the local Coast Guard.

(Sample Report Form)

REPORT OF HAZARDOUS CONDITION
Name of Vessel:
1. Where did the hazardous condition take place?
2. When did it take place?
3. What happened?
4. How many people were involved?
5. What is the worst that could have happened?
6. What should be done to prevent it from happening again?
Signed **Date**

Reporting Requirements for the Discharge of Oils

Responsibility for the report?

The master or person in charge of the vessel involved in an incident is responsible to:

- report the incident without delay by radio or fastest means possible;
- supplement the initial report, as necessary, with further developments; and
- comply with requests for additional information from affected countries.

Who should be notified?

The master or person in charge of the vessel involved in an incident must report details to:

- the appropriate officer or government agency of the affected country; and
- either:
  - the National Response Center (NRC) at 800-424-8802 (telex 892427),
  - the nearest Coast Guard Captain of the Port (COTP),
  - Coast Guard of EPA presdesignated OSC for the geographic area where the discharge occurs, or
  - if it is not possible to notify any of the above, reports may be made to the nearest Coast Guard unit, provided that the NRC is notified as soon as possible.

Information to be reported:

The incident report must include the following information:

- identity of the vessel,
- time and date of the incident,
- geographic position of the vessel at the time of the incident,
- wind and sea condition at the time of the incident,
- condition of the ship at the time of the incident, and
- estimate of the quantity of oil/oily mixture discharged into the sea.

NRC	Regional EPA Office	Nearest Coast Guard Unit
National Response Center (NRC) U.S. Coast Guard 2100 Second Street, SW Washington, DC 20593-001 800-424-8802		

List of EPA Regional Offices			Coast Guard District Offices		
Region	Address	Telephone	District	Address	Telephone
I	John F. Kennedy Federal Bldg. Boston, MA 02203	617-565-3715	1st	408 Atlantic Ave., Boston, MA 02110-2209	617-223-8444
II	26 Federal Plaza New York, NY 10278	212-264-2525	2nd	1430 Olive St. St. Louis, MO 63103	314-425-4655
III	841 Chestnut St. Philadelphia, PA 19107	215-597-9800	5th	Federal Bldg., 431 Crawford St. Portsmouth, VA 23705-5004	804-398-6638
IV	345 Courtland St., NE Atlanta, GA 30365	404-347-4727	7th	Federal Bldg., Rm. 1221, 51 SW, 1st Ave. Miami, FL 33130	305-536-5651
V	230 S. Dearborn St., 13th Floor Chicago, IL 60604	312-353-2000	8th	Hale Boggs Federal Bldg., 500 Camp St. New Orleans, LA 70130-3396	504-589-6901
VI	1445 Ross Ave., 12th Floor, Suite 1200 Dallas, TX 75202	214-655-6444	9th	1240 East 9th St. Cleveland, OH 44199	216-522-3919
VII	726 Minnesota Ave. Kansas City, KS 66101	913-236-2800	11th	Union Bank Bldg., 400 Oceangate Long Beach, CA 90822-5399	213-499-5330
VIII	999 18th St., Suite 500 Denver, CO 80202-2405	303-293-1603	13th	Federal Bldg., 915 Second Ave. Seattle, WA 98174	206-442-5850
IX	215 Fremont St. San Francisco, CA 94105	415-974-8071	14th	Prince Kalanianaole Federal Bldg., 300 Ala Moana Blvd., 9th Floor Honolulu, HI 96850	808-541-2114
X	1200 6th Ave. Seattle, WA 98101	206-443-5810	17th	P.O. Box 3-5000 Juneau, AK 99802	907-586-7195

NATIONAL RESPONSE CENTER HARDCOPY DRILL REPORT (800)424-8802

(A) REPORTING PARTY

Last Name: _____
First Name: _____
Phones: ( )_____-_____
( )_____-_____
Company: _____
Position: _____
Address: _____
_____
_____
City: _____
State: _____
Zip: _____

(B) SUSPECTED RESPONSIBLE PARTY

Last Name: _____
First Name: _____
Phones: ( )_____-_____
( )_____-_____
Company: _____
Position: _____
Address: _____
_____
_____
City: _____
State: _____
Zip: _____

Were materials released: Yes ☐ No ☐
Calling for responsible party: Yes ☐ No ☐

Confidential: Yes ☐ No ☐
Date, Time Received: / / _____

Source and/or cause of incident: _____

Date: ___-___-___ **Time:** _____ **DTG:**_____ **Type:** _____ **RR Hotline:** Yes ☐ No ☐
Continuous release type: _____
Cause: _____

Continuous release #: _____
Vessel / Vehicle #: _____

Incident address/location: A / B
_____
_____
_____

Nearest city: _____
State: _____
County: _____
Zip: _____

Distance from city: _____ **Units:** _____ **Direction from city:** _____
Section: _____ **Township:**_____ **Range:** _____
Container type: ____ **Tank cap:** _____ **Units:**_____ **Facility cap:** _____ **Units:** _____
Latitude degrees: _____ **Minutes:** _____ **Seconds:** _____
Longitude degrees: _____ **Minutes:** _____ **Seconds:** _____
Area I.D.: _____ **Block:** _____ **Milepost:** _____

CHRIS CODE	RELEASE AMOUNT	UNIT OF MEASURE	RELEASED MATERIAL	AMOUNT IN WATER	UNIT OF MEASURE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Actions taken to correct or mitigate: _____

_____

_____

Any air corridor closed: Y ☐ N ☐
Number of injuries: _____
Were there any evacuations: Y ☐ N ☐ U ☐
Was there any damage: Y ☐ N ☐ U ☐
Medium affected: _____
More info about medium:

Any roads closed: Y ☐ N ☐ U ☐
Number of fatalities: _____
Number evacuated: _____
Damage in dollars: _____

Additional information: _____

_____

_____

CALLER NOTIFICATIONS

EPA: _____ **State:** _____ **USCG:** _____ **Other:** _____ **Description:** _____

NRC NOTIFICATIONS

	PERSON NOTIFIED	DATE / TIME
EPA region: _____	_____	_____
MSO / COTP: _____	_____	_____
NTSB / H: _____	_____	_____
NTSB / R: _____	_____	_____
NTSB / P: _____	_____	_____
FRA: _____	_____	_____
FEMA: _____	_____	_____
ATSDR: _____	_____	_____
OPS: _____	_____	_____
OTHER: _____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Reporting Requirements for the Discharge of Garbage

Responsibility for the report?

The master or person in charge is responsible to report the intention to discharge garbage.

Who should be notified?

The port or terminal where the garbage is to be discharged should be notified of the necessity to discharge garbage.

When should the report be made?

The report should be made at least 24 hours before the vessel enters the port or terminal.

Information to be reported:

When notifying the port or terminal, the following information must be relayed:

- the name of the ship,
- the estimated volume of garbage, and
- type(s) of garbage to be discharged:
  - garbage regulated by the Animal and Plant Health Inspection Service (APHIS),
  - medical wastes, and
  - hazardous wastes.

Comply as fully possible with requests from affected States for additional information.

	In Port	**While Underway**
When to Report:		
Information Required:		
Whom to Contact:		
Steps to Control a Discharge		

Chapter 10
Maintenance

Policy

It is this company's policy to ensure that the company maintenance procedures and the maintenance procedures for each vessel are implemented as required by 33 CFR 96.250(j) of the ISM Code.

Policy Implementation

The company ensures that:

- each ship is maintained in accordance with relevant rules and regulations.
- additional company requirements for vessel maintenance are observed.
- inspections are held at appropriate intervals.
- specific equipment and technical systems that may result in a hazardous situation of a sudden operational failure occurs are identified.
- measures that promote the reliability of the equipment and technical systems are identified and standby arrangements and equipment not in regular use are tested.
- non-conformities are reported with possible cause, if known (Chapter 9).
- corrective actions are taken (Chapter 9).
- records of inspections, non-conformities, and corrective actions are maintained. The discrepancy form in this chapter will provide an accurate record of the non-conformities found during inspections, and the corrective actions taken.
- inspections required by this section are incorporated into the vessel's operational maintenance routine.

References

Federal Regulatory References	Sites
Drydock and internal examinations	46 CFR 176.600 through 670
Hull inspection	46 CFR 176.802
Machinery inspection	46 CFR 176.804
Electrical inspection	46 CFR 176.806
Lifesaving Equipment inspection and maintenance	46 CFR 176.808, Part 185 Subpart G

Federal Regulatory References	Sites
Fire Fighting Equipment inspection and maintenance	46 CFR 176.810, 181.120, NFPA 10
Pressure Vessel and Boiler inspections	46 CFR 176.812
Steering System inspection	46 CFR 176.814
Miscellaneous Systems and Equipment inspections	46 CFR 176.816
Sanitary inspections	46 CFR 176.818
Inspection for Unsafe Practices	46 CFR 176.830
Repairs and Alterations	46 CFR 176.700 through 710

Type of Manufacturer Reference Material	List of Manual
Propulsion engine(s) lubrication and other preventative maintenance	
Steering gear preventative maintenance	
Battery maintenance	
Navigation equipment maintenance	
Ground tackle maintenance	
Equipment marking maintenance	
Passenger and crew space maintenance	

Example Discrepancy Report

Name of Person Reporting the Discrepancy:	Date of Report
Department/Vessel:	
State the nature of the discrepancy:	
What is the proposed corrective action(s): Immediate Action(s)	
Name(s) of Person(s) to Correct the Discrepancy:	Date for Completion:
Further Action(s):	
Name of Person to Correct the Discrepancy:	Date for Completion:
Verification of Corrective Action Follow Up Details (Explain how the corrective action was verified.): Corrective Action(s) Closed Out	
Signature(s)	Person(s) Verifying Corrective Action

	References	Frequency	Inspection Criteria	Deficiency Action
Life Preservers (PFDs) and Storage		Annually	A. Retroreflective material on both sides, at least 31 sq. inches on each side. B. Type I, CG approved. C. Verify PFD lights work. If chemical type, check expiration date. If battery type, check battery expiration date, lens, and seal. D. Vessel name clearly labeled on each PFD. E. Check straps, snaps, jacket fabric for signs of wear, deterioration. F. Verify KAPOX pliability. If other type, i.e. cork, contact your local OCMI inspection criteria. G. Stowed in proper location and labeled. H. Wearing instructions posted. I. Adequate number on board, one for every person allowed by the COI. – 10% of total is required to be children's PFD's or – 5%, were all extended size PFDs are used on board; unless adult passengers only	Remove deficient PFD from the vessel, and replace with a serviceable PFD. If unable to replace, and passenger total reduced to number of serviceable PFD's on board.
Ring Buoys		Annually	A. Verify proper size on board: 20" for vessel less than 26' or 24" for all others B. Verify free of cracks and weathering. C. Verify vessel name stenciled on each. D. Verify proper number on board. Total count of all including those with lights and lines. E. Ensure properly mounted in racks for easy deployment. F. Check operation of attached waterlights. Check battery expiration date and replace as necessary.	Replace deficient item. Ensure it is stenciled and properly stowed. If unable to correct deficiency prior to carriage of passengers, notify cognizant OCMI.

	References	Frequency	Inspection Criteria	Deficiency Action
Rescue Boat and Launching Davit		Annually/ Monthly/ Weekly	A. Check launching davit for signs of cracking, deterioration, structural defects. B. Verify that davit and winch are operable. Ensure release hook is operational. C. Inspect the hull of the rescue boat for soundness; watertight, rivets and welds, flotation. D. Ensure boat plug is in place with a chain attached. Oarlocks on board and permanently attached. E. Rescue boat must have vessels name stenciled in 3" letters. Oars must also have vessels name on them. F. Conduct an operational test of the rescue boat.	Operational deficiencies should be corrected on the spot. Structural deficiencies will require a written repair proposal, immediate notification to the cognizant OCMI and no passenger being carried until the situation is corrected.
Lifefloats/Buoyant Apparatus		Annually	A. Correct number and capacity in accordance with COI. B. Stowed in tiers no more than 4 high. When stowed in tiers, spacers installed between each life float or buoyant apparatus. C. Stowage is such that units will float free. Acceptable weak link is attached. D. Painter is in good condition, secured to float and weak link. Weak link is attached to deck. E. Stenciled with vessel name in 3” letters and total capacity in 1.5" letters. F. Body of unit is in good condition, life lines, and netting are in serviceable condition. G. Each lifefloat shall be equipped with 2 paddles, water light, lifeline, pendents, and a painter. Each buoyant apparatus shall be fitted with a water light, lifeline, pendents, and a painter.	Immediately correct discrepancy. If unable to do so prior to carriage of passengers contact cognizant OCMI.

	References	Frequency	Inspection Criteria	Deficiency Action
Inflatable Liferafts		Annually/ Monthly	A. Verify correct number and capacity in accordance with COI. B. Verify annual servicing is current and done by approved servicing facility. C. INSTALLATION 1. Sea painter in good condition; properly secured. 2. Support foundations not wasted; matches raft container, cleat attached. 3. Container bands punched. 4. Weak link secured to vessel and painter. Properly rigged for float free operation. 5. Launching Instructions posted; match raft type and capacity; readily visible. D. HYDROSTATIC RELEASES 1. Hydrostatic release unit tested and marked (annual for metal releases, 2 years for rope release). 2. Properly tensioned in accordance with manufacturers specifications. 3. Clear of any obstructions. 4. Manual release accessible and facing inboard. E. EMBARKATION ARRANGEMENTS 1. Embarkation ladder is approved. 2. Ladder ropes are not deteriorated. 3. Ladder rungs are not cracked or broken.	If past servicing date, replace with current life raft. If unable to do so prior to the carriage of passengers, contact the cognizant OCMI.
Fire Fighting Equipment	**References**	**Frequency**	**Inspection Criteria**	**Deficiency Action**
Fixed CO_2 System		Annually	A. Servicing report current; within last year. All cylinders and flexible loops (12 years) within hydro requirement. B. Diffusers are clear of obstructions. C. Alarms in protected spaces are labeled, warning labels posted.	Contact cognizant OCMI prior to carriage of passengers; contact servicing company for repairs.

	References	Frequency	Inspection Criteria	Deficiency Action
			D. Cable pulls are marked. E. Instructions are posted. F. Cylinder brackets fixed and in good condition. G. Cylinders free of corrosion. H. Closure for protected spaces; provided; conduct operational test. I. Ventilation and engine shutdowns operational. J. Witness operational test of system by servicing company.	
Fixed Halon System		Annually	A. Servicing report current; within last year. All cylinders and flexible loops (12 years) within hydro requirement. B. Diffusers are clear of obstructions. C. Alarms in protected spaces are labeled, warning labels posted. D. Cable pulls are marked. E. Instructions are posted. F. Cylinder brackets fixed and in good condition. G. Cylinders free of corrosion. H. Closure for protected spaces provided; conduct operational test. I. Ventilation and engine shutdowns operational. J. Witness operational test of system by servicing company.	Contact cognizant OCMI to carriage of passengers; contact servicing company for repairs.

	References	Frequency	Inspection Criteria	Deficiency Action
Semi-portable Fire Extinguishers		Annually	A. Approved type V, frame support welded or otherwise permanently attached to the bulkhead or deck. B. Cylinder corrosion free. C. Discharge hose is flexible; no signs of wear, deterioration; discharge nozzle intact. D. Hydro test dates current: 5 years for CO2, 6 years for dry chemical. E. Location in accordance with table 181.500(a). F. Verify written documentation of annual servicing.	Replace with serviceable extinguishers prior to the carriage of passengers.
Portable Fire Extinguishers		Annually	A. Approved type, mounted in approved bracket. B. Cylinder corrosion free. C. Discharge hose is flexible; no signs of wear, deterioration; discharge nozzle intact. D. Hydro test dates current: 5 years for CO2, 6 years for dry chemical. E. Location in accordance with table 181.500(a). F. Verify written documentation of annual servicing.	Replace with serviceable extinguishers prior to the carriage of passengers.
Fire Main System		Annually/ Quarterly	A. Operate fire pumps; operating properly? 1. No excessive leaks. 2. Foundation/pump and motor secure. 3. Shaft bearing -- no play. 4. Coupling guard in place. 5. Remote operation. B. All required hoses on board, compatible threads, satisfactory condition. C. Fire hydrant -- Hose at hydrant and attached, spanner wrench, nozzle, low velocity fog applicator where applicable. All equipment compatible.	If unable to satisfy operation requirements, contact cognizant OCMI prior to carriage of passengers.

	References	Frequency	Inspection Criteria	Deficiency Action
			D. Hoses correct length (50') and size, based on COI. E. Satisfactory hydrostatic test of hoses to fire pump shutoff head pressure. F. Check pressure gauge on discharge side of pump to make sure it is functioning properly. G. Verify all valves at fire hydrants are operable. H. Verify compatibility of equipment at each hydrant. I. Determine that relief valves are set properly and discharge to acceptable location if installed.	
Fire Detection System		Annually	A. Witness operational test of fire detection system. B. Assure all sensors are free of obstruction and functioning. C. Verify alarms and indicators are functioning correctly; visible, and audible from the pilot house or fire control station. D. Verify audible alarms in engine room are functioning properly, if provided. E. Ensure engine room, pilothouse, and fire control station alarms are conspicuously marked in clearly legible letters. F. Verify manual alarm systems functioning properly.	Replace/repair deficient items. If a deficiency cannot be corrected, notify the cognizant OCMI prior to the carriage of passengers.
Fire Dampers and Remote Shutdowns		Annually	A. Verify manual operation of all fire dampers. B. Test remote operation of all remote ventilation shutdowns.	Replace/repair deficient items. If a deficiency cannot be corrected, prior to the carriage of passengers, notify the cognizant OCMI.
Sprinkler System		Annually	A. Remove several sprinkler heads in each zone to inspect the general condition of the head and piping. B. Test operation of the sprinkler system from each zone's test station.	Replace/repair deficient items. If a deficiency cannot be corrected, prior to the carriage of passengers, notify the cognizant OCMI.
Fire Axes		Annually	A. Proper number of fire ax(es) in accordance with Certificate	Replace/repair deficient items. If

	References	Frequency	Inspection Criteria	Deficiency Action
			of Inspection. B. Stowed at the primary operating station.	a deficiency cannot be corrected, prior to the carriage of passengers, notify the cognizant OCMI.
Fire Bucket	46 CFR 181.610	Annually	A. Proper number of fire buckets; three 2 1/2 gallon buckets with lanyards. B. Stenciled in contrasting color with the words “FIRE BUCKET."	Replace/repair deficient items. If a deficiency cannot be corrected, prior to the carriage of passengers, notify the cognizant OCMI.

Emergency Equipment	References	Frequency	Inspection Criteria	Deficiency Action
EPIRB	46 CFR 180.64, 185.604	Annually/ Monthly	A. Tested monthly using visual or audio output indicator. B. Stowed in a manner so that it will float free should the vessel sink and auto activate. C. Replace battery if EPIRB is used for purposes other than testing. Replace battery on or before the expiration date marked on the battery. D. Vessel name shall be marked on EPIRB.	Replace battery/EPIRB and/or mark accordingly. If a deficiency cannot be corrected, prior to the carriage of passengers, notify the cognizant OCMI.
General Alarm	46 CFR 183.550	Annually	A. General Alarm contact makers and alarm bells are located and marked in accordance with the regulations. B. Energize system from each contact maker. Ensure contact makers are all operable, ensure alarm bells are all operable and that none have been deliberately disabled. C. Ensure alarm bells are sufficiently loud to be easily heard above the ambient noise of the space in which they are placed. D. Ensure operation of any flashing red lights installed in addition to alarm bells.	Make appropriate repairs; if unable to repair prior to the carriage of passengers contact cognizant OCMI.
Pyrotechnics	46 CFR 180.68	Annually	A. Verify correct number.	Replace prior to or on expiration date prior to the carriage of

Emergency Equipment	References	Frequency	Inspection Criteria	Deficiency Action
			For Ocean, Coastwise or Great Lakes service: 6 hand red and 6 hand orange smoke; or 12 rocket parachute; or 12 hand red; or 6 hand red and 6 orange float; or, combination allowed by regulation. For Lakes, Bays and Sounds service: 3 hand red and 3 hand orange smoke; or 6 rocket parachute; or 6 hand red; or 3 hand red and 3 orange float; or, a combination allowed by regulation. B. The service life of the distress signals shall be stamped by the manufacturer on the distress signal. C. The distress signals shall be stowed in a portable watertight container at the operating station or a pyrotechnic locker secured above the freeboard deck in the vicinity of the operating station.	passengers.
Public Address System	46 CFR 184.610	Annually	B. Must be audible during normal operating conditions throughout accommodations and other normally manned spaces. C. Must be operable from operation station when required. D. When allowed, bullhorn batteries continually maintained.	Make appropriate repairs; if unable to repair prior to the carriage of passengers contact cognizant OCMI.

Ventilation	References	Frequency	Inspection Criteria	Deficiency Action
Ventilation Shutdown	46 CFR 177.600, 177.620	Annually	A. If power ventilation is installed, it must be capable of being shutdown from the pilot house.	Repair, if unable to do so in a timely manner, contact cognizant OCMI.
Fuel Tank Vents	46 CFR 182.450	Annually	A. Vent line not holed or excessively corroded. B. Flame screen or flame arrester is clean, in good condition,	Correct as appropriate, contact cognizant OCMI if unable to repair

Ventilation	References	Frequency	Inspection Criteria	Deficiency Action
			and firmly attached to the vent. C. Flame screen is a single screen of 30x30. D. Containment is available, clean, dry, and in good condition.	in a timely manner.
Void and Water Tank Vents	46 CFR 177.600	Annually	A. Vent line not holed of excessively corroded.	Repair in appropriate manner.
Galley Vents	46 CFR 177.600, 181.425	Annually	A. Grease extraction hood UL listed. B. Vent trunk not holed or excessively corroded. C. Interior of vent free of grease.	Make appropriate repairs.

Navigation Equipment	References	Frequency	Inspection Criteria	Deficiency Action
Radar	46 CFR 184.404	Annually	A. Examine radar for acceptable picture quality. B. Verify operator controls and adjustments function properly. C. Examine for excessive noise, vibration or wear. Ensure secure mounting. D. Verify controls illuminate. E. Verify display at several ranges.	If radar required, notify the cognizant OCMI prior to sailing with passengers. If not, make timely repairs.
Magnetic Compass	46 CFR 184.402	Annually	A. Check for illumination. B. Ensure compass can be read from main steering position. C. Ensure deviation table is current, and no major structural changes have been made.	Correct prior to carriage of passengers, if unable to do so, notify cognizant OCMI.
Radio	46 CFR 183.310, 183.392, 184.502	Annually	A. Must be capable of operating in 156-162 Mega-Hertz range. Capable of transmitting and receiving VHF FM Channels 13, 16, 22A. TEST: Obtain radio checks. B. Separate circuit with overcurrent protection at the main distribution panel.	Repair or replace defective item. If unable to do so prior to carriage of passengers, contact cognizant OCMI.

Navigation Equipment	References	Frequency	Inspection Criteria	Deficiency Action
			C. Supplied by two sources of electricity or batteries with a capacity for three hours. D. Verify that FCC certificates are valid.	
Navigation Lights	46 CFR 183.310, 183.420	Annually	A. Verify that navigation lights are operable. Test on emergency power if installed. B. Proper bulbs installed. C. Navigation light indicator panel (if installed) operating properly--check all fuses and alarms. D. Verify lights are installed in accordance with Navigation rules. E. Reflective screens in place and painted matte black. F. Lenses clean, wiring free of splices; no deterioration, installation appears sound. G. Supplied by two sources of electricity or batteries with a capacity for three hours.	Correct prior to getting underway during darkness or periods of reduced visibility.
Internal Communication and Control Systems	46 CFR 184.602	Annually	A. If sound powered telephones or voice tubes are installed, verify operation. B. Test ringers and operation of each voice tube or sound powered phone in a location required by the regulations. Ensure each can be heard above the ambient noise of that location. C. If hand held portable radios are used verify operation. D. Verify operation from operating station to location for controlling propulsion machinery.	Make appropriate repairs, contact cognizant OCMI if unable to repair prior to carriage of passengers.
Dayshapes and Whistle	33 CFR 81, 84, 86	Annually	A. All dayshapes shall be black. B. If shape is a ball, it shall not have a diameter of over .6 meters.	Take action to correct deficiency. Repair fog signal prior to sailing during periods of reduced visibility.

Navigation Equipment	References	Frequency	Inspection Criteria	Deficiency Action
			C. If shape is a cone, it shall have a base diameter of over .6 meters, and a height equal to its diameter. D. If the shape is a cylinder, it shall have a diameter of at least .6 meters, and a height of twice the diameter. E. A diamond shape shall consist of cones as defined above, having a common base. F. The vertical distance between shapes shall be at least 1.5 meters. G. The frequency of a whistle shall be as required by Table 86.05. H. The whistle shall be installed with its forward axis directed forward and placed as high as practicable.	
Electronic Positioning Equipment	46 CFR 184.410	Annually	For vessels on Ocean routes: Test the electronic position fixing device for accuracy by comparing a fix on the device to a charted location.	Make timely repairs, if unable to do so prior to carriage of passengers, contact cognizant OCMI.

Ground Tackle	References	Frequency	Inspection Criteria	Deficiency Action
Anchor System	46 CFR 184.300	Annually	A. Anchor sized in accordance with industry standards or as required by OCMI. B. Ensure all anchor releasing and retrieval equipment is operable and in good working condition (line/chain, winch/davit or windlass foundation, stopper, brake). C. Anchor winch or windlass should be tested to let out and retrieve chain.	Make appropriate repairs.
Bits, Cleats, Fairleads	46 CFR 184.300	Annually	A. Bits, cleats, and fairleads not excessively corroded or grooved; no scale build-up.	Make appropriate repairs.

Ground Tackle	References	Frequency	Inspection Criteria	Deficiency Action
			B. Cleat/bit horns not missing, broken, or excessively corroded. C. Foundations not fractured. D. All guy wires taut, no slack; turnbuckles, wire rope not wasted.	

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
Watertight Doors				
Hinged-type		Quarterly	A. Insure knife edges are intact and not warped or corroded and do not have excessive paint buildup. B. Insure gasket material is intact, continuous, and still pliable. C. Insure door closes completely around entire perimeter, and gasket makes contact with knife edge (chalk test as necessary). D. Examine all hinges and hardware for general condition, wear, fit, etc. E. Insure that all dogs are operable and grease fittings still work. F. Check wedges on door frame for excessive wear and that matchup with dogs is adequate. G. Test operation of quick action closing device from both sides. H. Ensure markings are clearly legible in a minimum of 1" high letters on both sides with "WATERTIGHT DOOR - KEEP CLOSED". I. Verify proper operation of door status indicator lights in the pilot house.	Replace deteriorated/worn gasket, dogs, pins, etc. on hinged doors. If unable to do so prior to carriage of passengers, contact cognizant OCMI.
Sliding-type		Quarterly	A. Test operation of door locally (both sides) by manual power and also hydraulic or electric power if so fitted. B. Test operation of door from remote manual location and	Replace deteriorated gasket, dogs, pins, etc. Consult manufacturer's instructions for

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
			verify door status indicator at the same location. C. Test operation of door from bridge panel (close/reset only). D. Verify operation of door status indicator on bridge (open/closed). E. Insure operation of local audible alarm when door is in motion. F. Test operation of power operated doors on emergency generator power. G. Examine metal to metal sealing surfaces for nicks, dents, or other obstructions. H. Insure all door guides and channels are free from debris and other obstructions. I. Ensure markings are clearly legible in a minimum of 1" high letters on both sides with "WATERTIGHT DOOR - KEEP CLOSED".	repair/adjustments to sliding watertight doors. If unable to do so prior to carriage of passengers, contact cognizant OCMI.
Watertight Bulkheads		Annually	A. Examine all watertight bulkheads to ensure they are intact and watertight. Foam flotation (if required and installed) not waterlogged. B. Examine collision bulkhead ensuring it is intact and watertight. C. Insure electrical cable and piping penetrations maintain watertight integrity and are kept to a minimum. D. Examine for signs of corrosion or deterioration. E. Ensure sluice valves have not been installed.	Repair/replace deficient items. If bulkheads show signs of deterioration contact cognizant OCMI.
Stuffing Tubes, Sealants		Annually	A. Insure electrical cable and piping penetrations maintain watertight integrity i.e., stuffing tubes still serviceable. B. If sealant is used in penetrations, it must be a non-flammable product designed for such use.	Repair/replace deficient items.
Remote		Annually	A. Verify operation of all remote fuel shutoff valves. Ensure	

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
Operated Valves and Controls			markings on the weather deck are legible and unobstructed. B. Ensure all valves adequately lubricated and operate freely. C. Operate each reach rod and other manual remote control mechanisms function properly. D. Verify each power operated valve operates properly from control station.	
Hull and Deck Openings		Annually	A. Ensure all dogs are properly lubricated and operate freely. B. Ensure all gaskets are in place and clean (i.e., free of paint, not deteriorated). C. Ensure all knife edges are clean and free of nicks and paint. D. Ensure hinges and bolts are in good condition; no sagging of door due to worn hinge bolts. E. Ensure dogging wedges are not excessively worn. F. Ensure all hatches have retaining devices.	Lubricate, clean, repair, or replace as necessary.
Freeing Ports and Self Bailers		Monthly	A. Ensure self-bailers, scuppers, or free ports allow rapid clearing of water. B. Ensure they are free of debris. C. Ensure all scuppers operate freely. D. No modifications made that reduce required freeing port area.	Clean or free up as necessary.
Windows and Airports, Port Lights		Annually	A. Ensure all dogs are properly lubricated and operate freely. B. Ensure all gaskets are in place and clean. (i.e., free of paint, not deteriorated). C. Ensure hinged dead cover closes properly. D. Ensure all knife edges are clean and free of paint and nicks.	Lubricate, clean, repair or replace as necessary.
Shell Plating/		Annually	A. Visually inspect hull to waterline; pay close attention to wind and waterline.	Submit written repair proposal to cognizant OCMI prior to

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
Internal Structure Joint Area			B. Investigate any significant insets for internal damage. C. Check for wastage around overboard discharges. D. Visually examine accessible welds to ensure they are not 'washing out'. E. Sheer Strake, Stringer Plate, Center Vertical Keel, Hatch Corners--Examine for wastage, pitting, fracture, excessive inset. F. Deck Beams, Underdeck Longs, Deck Girders, Side and Bottom Longs, Keel, Framing, Ladders- Examine for fractured welds, fractures in structural members, wastage, distortion.	undertaking repairs.
Steel and Aluminum Hulls		COI Interval	STEEL structural design in accordance with: Lloyd's Rules and Regulations for the Classification of Yachts and Small Craft; or ABS Rules for Building and Classing Steel Vessels Under 61 meters (200') in Length. ALUMINUM structural design in accordance with: Lloyd's Rules and Regulations for the Classification of Yachts and Small Craft; ABS Rules for Building and Classing Aluminum Vessels(if more than 100'); or ABS Rules for Building and Classing Steel Vessels Under 61 meters (200') in Length with appropriate conversions. A. Hull Shell/Plate--Examine for wastage, pitting, fractured weld seams. Note excessive upsetting. B. Framing, Stiffeners--Examine for fractured welds, separation from hull plate. Note: deformation and fracture in structure, strength value retained. C. Repair and modification procedures--Note proper weld procedures, special metals involved. Examine plate and framing replacement fit-up for alignment, proper corner radius, insert size. Modifications to original structure approved by USCG or Class Society.	Submit written repair proposal to cognizant OCMI prior to undertaking repairs.

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
			D. A written repair proposal must be submitted to the cognizant OCMI prior to beginning repairs.	
FRP Hulls and Structure		COI Interval	FRP structural design in accordance with: Lloyd's Rules and Regulations for the Classification of Yachts and Small Craft; or ABS Rules for Building and Classing Reinforced Plastic Vessels. A. Fasteners--Examine for loose fit or wasted material. B. Laminate material--Examine for delaminations due to impact or water intrusion. Note: fractures at corners, around fasteners and machinery mounts. Examine extent of blistering. C. Repair and Modification Procedures--Check for proper procedures, materials and repair environment (humidity, temperature, etc.). Examine repair preparation and sequence. Procedures approved or accepted industry standard. D. A written repair proposal must be submitted to the cognizant OCMI prior to beginning repairs.	Submit written repair proposal to cognizant OCMI prior to undertaking repairs.
Wood Hulls and Structure		COI Interval	WOOD structural design in accordance with: Lloyd's Rules and Regulations for the Classification of Yachts and Small Craft. A. Fasteners--Examine hull for loose or wasted fasteners. Note: "backed out" wood screw plugs, rust trails in hull. B. Damage--Examine hull, framing for evidence of impact or mechanical damage (cracked frames, split planks, etc.). C. Wastage and Rot--Examine hull, framing for wet or dry rot. Examine keel (worm) shoe and planking for evidence of marine borers. Check hull planking for loose or sprung planks, loose or missing caulking. Check for proper space ventilation, unpainted bilges. D. Repair and Modification Procedures--Use of proper	Submit written repair proposal to cognizant OCMI prior to undertaking repairs.

Hull Inspection	References	Frequency	Inspection Criteria	Deficiency Action
			materials and woodworking techniques in fit up and repair. Proper plank sizing, joint, and fastener placement. Use of sister frames appropriate. E. A written repair proposal must be submitted to the cognizant OCMI prior to beginning repairs.	
Markings		Annually	Markings: Conspicuous and Legible 1) Draft markings 2) Loading marks 3) International Load Line markings 4) Vessel's and Hailing Port	Take corrective action in timely manner.

Accommodations	References	Frequency	Inspection Criteria	Deficiency Action
Passenger/ Crew Accommoda-tions	46 CFR 177.800, 185.606	Annually	A. Space for Passengers- (if alterations to seating or passenger space furnishings, recalculate permitted passengers in accordance with 46 CFR 176.113). B. Toilet facilities: 1. Toilets operate properly. 2. Cleanliness. 3. Drains operating. C. Means of escape: 1. Verify a minimum of two escapes. 2. Labeled "EMERGENCY EXIT, KEEP CLEAR". 3. Not locked; free of obstructions.	Take corrective action in timely manner.
Heating and Cooking Equipment	46 CFR 177.410, 184.200, 184.202, 184.210,	Annually	Inspect condition and test safety features: A. Heating Equipment: 1. Verify installation will not come in contact with combustible materials.	Take corrective action in timely manner.

Accommodations	References	Frequency	Inspection Criteria	Deficiency Action
	184.220, 184.240, ABYC A-1, A-22, NFPA 302		2. Verify each electric space heater is provided with a thermal cutout. 3. Verify heating element is of a enclosed type and element case is corrosion resistant. B. Cooking Equipment: 1. Verify door hinges and locking devices prevent accidental opening. 2. Verify grills have a means to collect grease or fat. 3. Verify grab rails are sufficient if required by OCMI. 4. Verify sea rail are secure on cooking range to prevent pot spillage. 5. Verify general cleanliness. C. Verify that all LPG/CNG units are maintained as installed and the following: 1. Verify storage or use of CNG containers is not within an accommodation area machinery space, bilge or other enclosed space. 2. Verify LPG or CNG has been odorized. 3. Verify the operation of the remote shutoff valve if the fuel supply line is in enclosed space.	

Accommodations	References	Frequency	Inspection Criteria	Deficiency Action
Marine Sanitation	46 CFR 184.704, 33 CFR 159	Annually	If the vessel has an installed toilet facility a MSD must be installed. A. For Type I and II: 1. Verify manufactures nameplate posted on device. 2. Verify the device has a placard containing the operating instructions, precautions, and warnings pertinent to the device. 3. Verify operation of chemical level indicator. 4. Verify operation of sewage level indicator if device is designed as a sewage retention device. 5. Verify momentary loss of power does not allow discharge. 6. Verify vents are free and open. B. For Type III: 1. Verify operation of sewage level indicator.	Ensure accidental discharge of sewage is prevented. Correct deficiency; notify cognizant OCMI if unable to do so in a timely manner.
Berthing Accommo-dations	46 CFR 175.400, 177.700, 177.800, 177.810	Annually	A. Ensure space is adequate for the personnel assigned. B. Accommodation maintained to minimize and safety hazards and to preserve sanitary conditions. C. Aisles kept clear of obstructions. D. Passenger berths constructed of approved material and not stacked more than three high. E. A suitable means of access is provided for each berth located more than 60” above the deck. F. Arrangement of berths and other furniture allows free and unobstructed access to each berth.	Take corrective action in a timely manner.
Ladders, Rails, Guards and Embarkation Station	46 CFR 177.500, 900, 940	Annually	A. Verify adequate lighting in way of embarkation area. B. Verify rails are all bolted or welded securely. C. Verify wire mesh or equivalent securely attached to rails. D. Verify access to the ladders is not hindered by obstructions	Take corrective action prior to carriage of passengers.

Accommodations	References	Frequency	Inspection Criteria	Deficiency Action
			and free of protrusions. E. Verify free of corrosion, sharp edges or cracks (check where rails are welded to deck closely and supporting structure). F. Verify guards are in place in way of rotating machinery.	

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
External Examination of Boilers	46 CFR 61.01, 61.05, 61.10 and 62	Annually	1. Inner casing, outer casing, and wind box: a. Examine all for distortion, bulging, fractures, burned, and sagging areas. 2. Lagging: b. Examine for proper fit, condition, burned, or missing sections, etc. c. Check for exhaust leaks around flanges on boiler and exhaust stacks under lagging joints. 3. Tank tops beneath boiler: a. Examine for corrosion, pitting, distortion, cleanliness of tank top, and oil wetted areas (fracture indication). 4. Condition of foundation/sliding feet: a. Examine boiler foundation frames for corrosion, distortion, and fractures. b. Examine sliding feet for alignment, binding, fractures, corrosion, and cleanliness. 5. Headers/Handholes evidence of leakage: a. Externally examine headers and handholes for signs of leakage around gasket and welds. b. Internally for foreign objects and cracking around tubes. 6. Automation Test Procedures: a. Using approved automation test procedures, test all	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			alarms and shutdowns.	
Waterside Examination of Water Tube Boilers	46 CFR 61.05, 10	Twice in Five Year Period	1. Steam drum, mud drum, headers (waterwall, superheater): a. Remove baffle plates in steam drum. b. Internally examine for fractures, missing/loose bolts or brackets, foreign objects, and signs of corrosion, erosion and leakage. 2. Drum internals including: a. Dry pipe--Examine for corrosion of pipe and support brackets. b. Main and chemical feed lines--Examine for corrosion; hammer test flanged connections. c. Desuperheater and control desuperheater--Examine for corrosion; hammer test flanged connections. d. Surface blow--Examine connection for fractures and corrosion. e. Baffle plates--Examine for fractures in plates and brackets/missing bolts. f. Tube sheet connections/ligament--Examine for fractures and leaks. g. Connections and attachments--Examine for fractures and pitting. h. Surface conditions--Examine for scaling, pitting, corrosion, erosion, and fractures. 3. Verify number of tubes plugged, i.e., Row 4, tubes 5, 6, and 13, Stbd. steam drum. 4. Headers (Remove every 5th hand hole cover): a. Hand hole seats--Examine seats in header and cover plates for corrosion, pitting, and erosion. b. Tube connections, with a light and mirror--Examine tube connections for leakage and fractures	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			c. Welded connections--Examine for fractures and erosion. d. Division plates--Examine for fractures and erosion. e. Surface conditions--Examine header for pitting, erosion, scaling, and foreign debris, i.e., gasket pieces.	
Fireside Examination of Water Tube Boilers	46 CFR 61.05	Twice in Five Year Period	1. Brick work: a. Examine for loose, broken, missing, or eroded bricks. Repair as needed. b. Examine floors for heaving, excess slag build-up. 2. Corbel: a. Examine for loose, broken, or missing corbel (Burner cones). 3. Waterwall, screen, generating and floor tubes (if fitted): a. Examine for sagging and blistering, marred and burned out tubes. 4. Superheater tubes and supports: a. Examine for sagging and blistering, marred and burned out tubes. b. Examine for burned out supports that cause sagging sections of tubes. 5. Burner: a. Examine for excess slag build-up (indication of dribbling nozzle). b. Examine for fractures in the air registers and diffusers. c. Externally examine for fuel leakage. 6. Amount of slag accumulation: a. Internally examine for excessive slag build-up on tubes, brick work and corbel. (This causes poor heat transfer, loss of efficiency and internal damage.)	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			7. Uptake and economizer: a. Examine for excessive soot accumulation on tubing fins. b. Examine for fractures, corrosion, and exhaust leaks. 8. Soot blowers: a. Examine for proper operation, leaks, fractures, or excessive soot deposits. 9. Air heaters: a. Examine for soot build up, leaks, and unrestricted operation.	
Fireside Examination of Fire Tube Boilers	46 CFR 61.05, 59.15-1	Annually if ≥ 150psi/ Twice in a Five Year Period if < 150psi	1. Furnace (distortion): a. Measure with a tram bar to detect distortion. b. Repair as needed as per 46 CFR 59.15-1(a) or 46 CFR 59.15-1(c). 2. Combustion chamber (crown sheet, wrapper sheet, back sheets, distortion). 3. Boiler shell and heads: a. All portable sections and any suspect or wet areas of lagging shall be removed while boiler is under hydrostatic pressure to determine the source of leaks. b. Examine shell and heads for corrosion and wastage. 4. Stay bolts: a. Examine for corrosion, wastage, and necking. 5. Riveted seams and rivets (if applicable): a. Examine for stress corrosion cracking around rivets, especially around loose or missing rivet holes. b. Examine for leakage at seams and rivets. 6. Boiler saddles and foundations: a. Hammer test saddles, collision chocks, and foundation to detect deterioration.	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			7. Plating in way of mountings: (wastage due to leaking valves and fittings): a. Examine for wastage due to leaks from mounts. 8. Cracks in the plating due to flexing of the heads or leakage: a. Cracks, wastage, or evidence of leaks shall require further examination of the inside of the head. 9. Wastage around the manhole gaskets: a. Examine for corrosion or wastage due to gasket leaks. 10. Note heat number and condition (sat/unsat) of fusible plugs.	
Waterside Examination of Fire Tube Boilers	46 CFR 61.05 and Part 59	Annually if ≥ 150psi/ Twice in a Five Year Period if < 150psi	1. Straps and rivets attaching the heads to the shell (if applicable): a. Sound or "ring" with hammer to check for tightness. b. NDT for cracks, any rivet holes with loose or missing rivets. 2. Necked stays, loose rivets, and fracture: a. Examine stays for corrosion, wastage, and necking; renew as needed. b. Loose or missing rivets require NDT and repair as per 46 CFR part 59. c. Fractures require NDT and repair per 46 CFR part 59. 3. Tubes : (Pitting- determine general depth and tube type). a. Examine for deep pits over a large area, shallow widely scattered pits over a large area can usually be disregarded. b. A distinction must be made between plain and stay tubes, stay tubes have a greater initial wall thickness. 4. Internal surface conditions (scaling, pitting, corrosion and erosion): a. Examine for excessive scale, small amounts are	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			common. b. Examine for corrosion and erosion to plating due to leaks, defective internal feed line gaskets are a frequent cause.	
Required Mounts (open/ inspect)	46 CFR 56.25-20 and 61.05-15	10 Year Interval	A. Each valve shall be opened for examination. If the valve can not be satisfactorily examined in place it must be removed for examination. The following is summary of the valves requiring examination: Main steam stop valve Generator steam stop valve Auxiliary steam stop valve Main and auxiliary feed stop valves Surface and bottom blowdown valves Superheater vent valve Superheater drain valve Soot blower stop valve Economizer inlet and outlet valves B. Examine the valves for the following: 1) Seat--No grooves, gouges, pitting, corrosion, or scale 2) Disc--No grooves, gouges, pitting, corrosion, or scale 3) Stem--Check for free operation, straightness, and wear 4) Integrity of valve body--Check for guide and body wear 5) Condition of stem packing gland--Check for wear or distortion and install new packing 6) Gland ring bolts--Check for stretched, bent, or broken bolts C. Examine all studs bolts for cracks, deterioration, and necking down.	Replace or repair deficient item. Ensure it is working properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
Hydrostatic Test	46 CFR 61.05, 61.15	Annually - Firetube Propulsion Twice in 5 Years - Others Every 5 years - Piping	A. Conduct tests in conjunction with required fireside exam. B. Ensure safety valves are secured by gags or clamps. C. Verify water temperature is correct: 1) Watertube = not less than 70°F and not more than 160°F 2) Firetube = not more than 100° F D. Verify appropriate test pressure: 1) Watertube = 1 ¼ MAWP 2) Firetube = 1 ½ MAWP E. Test all main steam piping from the boiler drum to the throttle. No piping with a nominal size of 3" or less need be tested. 1) Verify appropriate test pressure = 1 ¼ MAWP 2) Verify test pressure is held for a minimum of 10 minutes F. Examine all tube joints, header connections, and handhole plates for leakage. *Note:* Any leaks to be repaired "After" pressure is released from boiler or piping.	Replace or repair deficient item. Ensure it is operating properly.
Lifting/ Reseating Safety Valves	46 CFR 52.01-120, 61.05-20, 52.01-55	Annually - Firetube, COI - Watertube	Witness the lifting and reseating of each safety valve for the drum, superheater, or reheater of a boiler: A. Determine the MAWP (Maximum Working Pressure). This can be found on the boiler name plate or in the manufacturer's specification manual. B. During the testing of the safety valve ensure that the valve is set no higher than the MAWP, but above the normal steaming range. C. Ensure that the superheater safety valve is set correctly in relation to drum safety valve. The drum safety has the highest setting followed by the superheater safety (1) or	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			safeties (2) and the pilot operated safety valve installed. D. Ensure that the "blow-down" range falls within 2-4% of the set pressure each valve, but not falling into the steaming range of the boiler. E. Ensure that there is no simmering or chattering during the lifting or reseating of any safety valve. F. A Coast Guard Marine Inspector shall seal all safety valves. G. Operationally test all hand relieving gear to ensure all safety valves work manually. H. Examine all escape piping to ensure its integrity and if it is free from leaks.	
Condensate System	46 CFR 56.50-35, 56.50-45	Annually	A. Examine sea water piping, valves, and expansion joints for corrosion, leakage, broken bolts in flanges, support brackets, and integrity of expansion joint ground straps. B. Examine condensers for corrosion, leakage, broken/missing bolts or studs, and wastage of the condenser body. C. Examine condensate piping for leakage, corrosion, broken/missing flange bolts, and over-all condition of piping and supports. D. Operationally test all sea water circulating and condensate pumps in modes, operating all local and remote shutdowns, if installed. Check for proper operation of steam engine or electric motor, seals, foundations, wiring, and over-all condition of pump.	Replace or repair deficient item. Ensure it is operating properly.
Feedwater System	46 CFR 56.50-30	Annually	A. Examine feedwater piping, valves and expansion joints for corrosion, leakage, broken bolts in flanges, support brackets, and integrity of system. B. Ensure that two methods of determining boiler water levels are operable. This includes, but not limited to, sight glasses and alarms.	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			C. Operationally test all feed pumps in all modes to ensure the stand-by pump operates when the primary fails. Operating all local and remote shutdowns, if installed. Check for proper operation of steam engine or electric motor, seals, foundations, wiring, and over-all condition of pumps. D. Inspect make-up feed evaporator externally, if installed, to ensure proper operation and that there are no leaks or wastage. E. Operationally test feedwater regulators if not part of the automation test procedure. F. Externally inspect feedwater heaters for corrosion, wastage, and leaks.	
Main Engines	46 CFR 58.01-20	Annually	A. Inspect main engine foundations for fractures, wastage, corrosion. Hammer test, "Ring", foundation bolts to check for loose bolts or nuts. B. Operational test engine to check governor operation, examine piping for leaks and fractures, test for trip on overspeed and low/low L/O pressure. C. Operational test engine to check throttle for ease of operation and leaks. D. Operational test engine to check that all instrumentation is working properly and not leaking steam, oil, or air, all wiring is in proper condition and no broken gauges or alarms. E. Operational test lube oil system to ensure there are no leaks and all pumps are operational in all modes, all local and remote controls operate properly, and filters are not leaking and operating within their pressure range.	Replace or repair deficient item. Ensure it is operating properly.

Steam Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
Insulation	46 CFR 56.50-1	Annually	A. Inspect all steam piping and machinery insulation to ensure it is intact, all wire hooks/wire and blankets (if installed) are in place to minimize the risk of personnel hazards.	Replace or repair deficient item. Ensure it is operating properly.

Diesel Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
Remote Engine Shutdowns	46 CFR 182.200, 455	Annually	A. Test each remote fuel shutoff valve located in the fuel line at the tank from outside the compartment in which the valve is installed. Ensure any and all reach rods function freely and properly and the valve closes fully. B. Test the other means of remotely shutting down each engine.	If any component or test fails, effect repairs prior to the carriage of passengers.
Condition and Engine Insulation	46 CFR 182.400	Annually	A. Ensure engine crankcase explosion covers are installed correctly and maintained in a serviceable condition. B. Examine all fuel supply and return piping, fittings, and hoses for leaks, and signs of chafing. C. Determine that all engine instruments/indicators function normally, without undue fluctuation, gage faces are clean and intact, properly labeled, calibrated, visible, and measure the value in a range useful to the operator. D. Ensure all personnel safety devices (guards, rails, spray shields, insulation) are in place, properly maintained, secured in the correct location, and labeled, stenciled, or color coded as required. E. Any location that poses a slip-trip-fall hazard, machine or equipment which may trap or ensnare a person or persons clothing must be immediately corrected. F. Engine exhaust systems shall be inspected for leaks, wasted gaskets, loose, saturated, or missing lagging, proximity to combustible materials, overheating adjacent	Replace or repair deficient item. Ensure it is appropriate.

Diesel Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
			structures, and potential personnel injury in the event of accidental contact. G. Examine engine foundation and tank tops for signs of fatigue, stress, fractures, flexing while operating, indication of misalignment, and unusual noise and vibration. H. Examine engine air intakes to ensure that devices are installed to prevent the entrance of harmful foreign materials and the device is in good repair. I. Ensure crankcase vents are clear and that the accumulation of oil and vapors are contained and removed.	
Air Start Systems	46 CFR 54, 61.10, 176.812, 182.330	Annually	A. Verify all valves, gauges, and pressure controls function as designed. B. Test the relief valve by increasing the system pressure until the valve "pops" or the MAWP on the receiver is reached. Note: If the valve does not lift, the valve must be replaced or adjusted to lift at the specified pressure not to exceed that marked on the receiver data plate. C. Examine accumulators to determine that the accumulator can be isolated. That it is protected on the gas and fluid side by relief valves set to relieve at pressures not to exceed the MAWP.	Correct, repair, or adjust any component as required.
Hydraulic Starting System	46 CFR 54, 58.30, 61.10, 176.812, 182.330	Annually	A. Examine hydraulic system with system under operating pressure. Verify that all joints and connections are tight and leak free. Examine non-metallic hoses for signs of chafing. B. Verify system functions normally, accumulator recharges and all gauges, valves, and controls function. C. Examine accumulator for signs of leaks or physical damage.	Correct, repair, or adjust any component as required.

Diesel Power Systems	References	Frequency	Inspection Criteria	Deficiency Action
Electric Starting Systems	46 CFR 183	Annually	A. Ensure starting system wiring is properly supported, protected from chafing, and routed away from moving machinery.	Correct, repair, or adjust any component as required.
Fuel Systems	46 CFR 182.435, 440, 445, 455	Annually	A. Examine external condition of the fuel tanks, piping, fittings, hoses, and support braces. B. Ensure all fuel tanks are electrically bonded to a common ground. C. All flexible nonmetallic hoses are of suitable type and double clamped. D. Flame screens are in good condition and made of a corrosion resistant material. E. Ensure method of determining the amount of fuel in each tank is appropriate.	Correct, repair, or adjust any component as required.

Unfired Pressure Vessels	References	Frequency	Inspection Criteria	Deficiency Action
External Exam of UPS	46 CFR 176.812, 61.10-5	Annually	Examine each pressure vessel on the ship to verify the following: A. Pressure gauge installed is accurate, visible, and in good working condition. B. Verify that the name plate on the vessel is intact and legible. Ensure that the data plate on the relief valve is also intact and the valve is suitable for the application and rated capacity of the receiver and MAWP. C. Determine that the vessel itself is securely mounted to the ships structure and all piping to receiver is adequately supported. D. Verify externally that the pressure vessel is in sound condition and that there is no evidence of structural	Effect repairs to correct any deficiency. Notify the OCMI if structural damage is noticed prior to taking corrective action.

Unfired Pressure Vessels	References	Frequency	Inspection Criteria	Deficiency Action
			damage.	
Internal Exam of UPS	46 CFR 176.812, 61.10-5	Twice in Any 5 Year Period	This ICR applies to each UPV that is fitted with a manhole or other inspection opening so it can be satisfactorily examined internally. Examine inside of UPV especially all welded connections looking for gauging or pitting. If any defect is noticed with in the UPV it must be hydrostatically tested to 1 ½ times the MAWP. If no defect is noted, the UPV does not need to be hydrostatically tested.	Notify the OCMI if structural damage is noticed prior to taking corrective action.
Hydrostatic Testing	46 CFR 176.812, 61.10-5	Twice in Any 5 Year Period	Each UPV which has been internally examined with noted deficiencies and each UPV which cannot be internally examined must be hydrostatically tested. Hydrostatic test pressure is to be 1 ½ times the MAWP of the UPV. Examine for leaks and seepage.	Notify the OCMI if structural damage is noticed prior to taking corrective action.
Test Pressure Relief Valves	46 CFR 176.812, 61.10-5	COI Interval	A. Verify the setting of the safety or relief valve is at or below the MAWP of the pressure. B. Function test the hand lifting device. C. Verify that after testing the valve that it seats tightly.	Any relief valve that fails shall be repaired or replaced prior to system being placed in service.

Auxiliary Machinery and Equipment	References	Frequency	Inspection Criteria	Deficiency Action
Steering Gear	46 CFR	Annually	A. Verify all foundations and all equipment mounting bolts are	Replace or repair defective item.

Auxiliary Machinery and Equipment	References	Frequency	Inspection Criteria	Deficiency Action
Components	111.93, 176.814, 182.610, 620		intact and secured properly. B. Check piping systems and attachments, equipment securing brackets, protective guards, wire runs and cages, and other items prone to corrosion and vibration fatigue. C. Inspect control linkages and linkage pins and ram guides for wear. D. Verify feedback devices, differential units, or other components that may cause single point failure and make sure they are in good condition. E. Ensure that all vital connections, pins, couplings, and control linkages have securing devices, such as cotter pins or double-nut locking arrangements, to prevent loosening from heavy vibration. F. Verify emergency steering procedures and steering transfer diagrams are posted, clear, and correct. G. Inspect the carrier bearing for undue wear and leakage of water through the rudder post packing or vent ducts. H. Inspect the insides of motor controller and switch gear boxes for general condition/safe wiring practice, loose connections, and any signs of corrosion, excessive condensation, or electrical arcing. I. Inspect pumps and motors by hand rotating each motor and pump assembly, being alert for unusual noise, binding, or a feeling of roughness during rotation. Couplings should be examined for excessive play and evidence of grease slinging. Check motor ventilation openings for cleanliness. J. Ensure all hydraulic hoses and connections are intact and the oil reservoir is properly filled. K. Inspect the steering gear space for fire and personnel hazards, i.e., oily rags, dangerous electrical connections, adequate lighting, etc.	Ensure it is operating properly.

Auxiliary Machinery and Equipment	References	Frequency	Inspection Criteria	Deficiency Action
Steering Gear Operational Test	46 CFR 111.93, 176.814, 182.610, 620	Annual	A. To properly conduct an operational test of the steering gear it is best done with one crew member on the bridge and the other in the steering gear room. B. Ensure that operating instructions are properly posted and accurate at all operating platforms. C. During operation be alert for unusual noise, vibration, oil leakage, water leakage, and abnormal hydraulic pressures. Hunting of the system may indicate feedback problems. D. Check for overheating of the pumps and motors. E. Test all systems alarms and indicators. Both visual and audible. (The operation test should be conducted on each pump and on each system follow-up and non-follow-up modes.) F. Operate each motor and pump assembly from the bridge, the alternate control station, and steering gear room through the full range of the rudder travel. The range of rudder movement should be from 35 degrees to 30 degrees in 28 seconds. G. Operate each motor and pump assembly on the normal, alternate, and emergency power supplies checking for proper operation of the manual feeder transfer switch and automatic bus transfers. H. Control should be switched from bridge control to engine room control and vice versa using posted instructions. I. Auxiliary steering arrangements should be tested by simulating a power failure. The system should then be switched and tested. The time limit for the auxiliary system is 60 seconds from 15 degrees to 15 degrees. When power is secured the loss of power alarm should operate. This should be tested on both controllers.	Replace or repair deficient item. Ensure it is operating properly.

Auxiliary Machinery and Equipment	References	Frequency	Inspection Criteria	Deficiency Action
			J. Ensure proper indication is obtained by the helmsman by using the trick wheel (where installed). K. Ensure proper rudder angle indications is provided at all control stations. Where synchro steering repeaters are used, ensure the indications are the same. Visibility from the steering station and night lights shall also be checked. Emergency lighting should be checked as well.	
Bilge System	Annually	46 CFR 182.500, 510, 520, 530	A. Ensure the bilge system is capable of pumping from and draining any watertight compartment except for ballast, oil, and water tanks which have acceptable means for filling and emptying independent of the bilge system. B. Ensure all standing water does drain to bilge suction pipes. C. Ensure that there are independent valves for each watertight compartment and they are easily accessible and operable and clearly marked for which compartment they control. Ensure the crew understands the reason for these valves and where they are located. D. Passenger vessels on an international voyage or on an ocean, coastwise, or great lakes route shall be outfitted with an emergency bilge suction. If so fitted, all valves should operate freely and the system adequately marked. An operational test should be conducted to ensure all bilge lines are free and able to take suction. E. If the bilge system is equipped with strainers adequate means shall be made to ensure the strainers are unobstructed and in good condition. F. Any remote reach rods controlling the bilge system should be operated and ensured they are actually connected to the appropriate valve. G. Instrumentation for determining pump suction and pressure	Replace or repair deficient item. Ensure it is operating properly.

Auxiliary Machinery and Equipment	References	Frequency	Inspection Criteria	Deficiency Action
			should be relatively accurate and in good working order. H. Test all bilge level alarms and make sure they operate properly.	

Electrical Systems	References	Frequency	Inspection Criteria	Deficiency Action
Switchboards	46 CFR 111.30, 183.330	Annually	A. A general overview of the physical condition should be given to the entire switchboard. B. Ensure there is a non-conductive mat or non-conducting grating in each working area in front of and behind each board. C. Non-conducting handrails and guard rails should be present on the board face. D. Dripshields should be present and in good physical condition. E. All ground detection lights should be in working order and no grounds should be indicated. F. All instrumentation (meters) should be in good working order and recently calibrated. All controls and meters should be clearly and accurately identified. G. Where the generators can be paralleled all synchronizing controls and associated equipment for synchronizing generators should be functioning properly. H. Overcurrent devices should be clearly and accurately identified.	Replace or repair deficient item. Ensure it is operating properly.
Ship's Service Generators	46 CFR 183.320, 322, 324	Annually	EACH INDIVIDUAL GENERATOR A. Ensure the location of the generator is receiving adequate ventilation and is as dry as possible.	Replace or repair deficient item. Ensure it is operating properly.

			B. Verify the operation of the voltmeter and ammeter for each generator rated at 50 volts or more. C. Verify the operation of the frequency measuring device for each AC generator. D. Verify a nameplate containing the information required by Article 445 or Article 430 of the NEC is attached. E. Verify each generator is protected by an overcurrent device with a set value not exceeding 115% of full lad rating. MULTIPLE GENERATOR INSTALLATIONS A. For non-parallel systems; verify the operation of the interlock which prevents simultaneous connection to the switchboard. B. For parallel systems 1) test the operation of the reverse-power or reverse-current trips, 2) verify the operation of the switchboard speed control for each prime mover, 3) verify the operation of the wattmeter for each generator, and 4) verify the operation of the synchroscope and synchronizing lamp that selector switch to show synchronization for paralleling generators. DUAL VOLTAGE GENERATORS A. Verify the neutral of the voltage system is solidly connected to the switchboard's neutral bus. B. Verify the neutral bus is connected to ground. C. Verify ground detection: 1) For AC systems verify that the ammeter indicates the current in the connection and has a scale that accurately measures the 0 to 10 ampere range, and that the	

			ammeter switch is of the spring return-to-on type. 2) For DC systems verify that the zero center ammeter is in the ground connection, has a scale range of 150% of the neutral current rating, and the polarity of the ground marked.	
Emergency Generators	46 CFR 183.320, 322, 324	Annually	EACH INDIVIDUAL GENERATOR A. Ensure the location of the generator is receiving adequate ventilation and is as dry as possible. B. Verify the operation of the voltmeter and ammeter for each generator rated at 50 volts or more. C. Verify the operation of the frequency measuring device for each AC generator. D. Verify a nameplate containing the information required by Article 445 or Article 430 of the NEC is attached. E. Verify each generator is protected by an overcurrent device with a set value not exceeding 115% of full lad rating. MULTIPLE GENERATOR INSTALLATIONS A. For non-parallel systems verify the operation of the interlock which prevents simultaneous connection to the switchboard. B. For parallel systems 1) test the operation of the reverse-power or reverse-current trips 2) verify the operation of the switchboard speed control for each prime mover, 3) verify the operation of the wattmeter for each generator, and 4) verify the operation of the synchroscope and synchronizing lamp that has a selector switch to show synchronization for paralleling generators.	Replace or repair deficient item. Ensure it is operating properly.

			DUAL VOLTAGE GENERATORS A. Verify the neutral of the voltage system is solidly connected to the switchboard's neutral bus. B. Verify the neutral bus is connected to ground. C. Verify ground detection. D. For AC systems verify the ammeter indicates the current in the ground connection and has a scale that accurately measures in the 0 to 10 ampere range, and verify the ammeter switch is of the spring return-to-on type. E. For DC systems verify that the zero center ammeter is in the ground connection, has a scale range of 150% of the neutral current rating, and has the polarity of the ground marked.	
Emergency Batteries/ Batteries	46 CFR 183.350, 352, 354	Annually	A. Verify connections to battery terminals are of the permanent type. B. Examine battery trays to ensure serviceability. Verify lining or construction is of a material that is resistant to damage by electrolyte. C. Test the ammeter connected in the charging circuit. For a LARGE battery installation consisting of a charger having an output of more than 2kw: 1) Verify the locker, room, or enclosed box used for the batteries is dedicated. 2) Verify the electric motors for the battery installation power ventilation system are Class I, Division 1, Group B or are at least 10' form the exhaust end of duct. 3) Test the interlock between the battery charger and the ventilation system to ensure the batteries can not be charged without ventilation. For a SMALL battery installation consisting of a charger having an output of 2kw or less:	Replace or repair deficient item. Ensure it is operating properly.

			1) Verify ventilation is sufficient to dissipate the gases generated during charging.	
Lighting Systems	46 CFR 183.410, 430, 432	Annually	A. Ensure each lighting fixture globe, lens, or diffuser has a guard or is made of high strength material except in a location where it is not subject to damage. B. Ensure each lighting fixture is not being used as a connection box for a circuit other that the branch circuit supplying the fixture. C. Ensure each table lamp, desk lamp, floor lamp, or similar equipment is secured in place. D. Ensure the portable battery operated lights located at the operating station and the access to the propulsion machinery space are operational. E. Test the emergency lighting fitted along the line of escape to the main deck from all passenger and crew accommodation spaces located below the main deck. Ensure it is adequate. F. Test the automatic activation of the emergency lighting system upon loss of the main lighting system. G. Ensure all lighting fixture globes, lenses, and diffusers have a high strength guard or be made of high strength material where the light may be subject to damage. H. Test lighting in way of liferaft embarkation stations to ensure proper illumination of the area.	Replace or repair deficient item. Ensure it is operating properly.
Receptacle Outlets	46 CFR 183.370	Annually	Ensure each receptacle outlet that operates at 100 volts or more has a grounding pole and that the poles are adequately grounded.	Replace or repair deficient item. Ensure it is operating properly.
Distribution Panels	46 CFR 183.330	Annually	Ensure each distribution panel is adequately ventilated and protected from falling debris and dripping or splashing water.	Replace or repair deficient item. Ensure it is operating properly.

Wiring	46 CFR 183.340	Annually	A. Examine cable and wires for signs of mechanical damage, jury rigs, dead end cables, splices, etc. B. Examine cable and wire supports for corrosion or deterioration. Supports should not be spaced more than 24" apart and should not cause chafing or other damage to the cable or wire. C. Ensure portable cables and wires are used in appropriate situations and are not used for a "temporary fix".	Replace or repair deficient item. Ensure it is operating properly.
Internal Communication System	46 CFR 184.602	Annually	Test the fixed means of two-way communications between the operating station and the location where the means of controlling the propulsion machinery is located. This can take the form of direct voice communications, OCMI approved portable radio installation or fixed communication installation.	Replace or repair deficient item. Ensure it is operating properly.
Components of Hazardous Locations	46 CFR 183.530	Annually	A. Examine electrical equipment in spaces containing machinery powered by, or fuel tanks for, gasoline or other fuels having a flashpoint of 110F or lower. Ensure electrical equipment is explosion-proof or ignition-protected or part of an intrinsically safe system. B. Examine lockers used to store paint, oil, turpentine, or other flammable liquids. Ensure electrical equipment is explosion-proof or ignition-protected or part of an intrinsically safe system.	Replace or repair deficient item. Ensure it is operating properly.

ISM -

- Source of spare parts

Non Regulatory -

Equipment maintenance not covered in regulations shall be to the manufacturers recommendations. At a minimum, the following items should be covered:

- Propulsion engine(s) lubrication and other preventative maintenance
- Steering gear preventative maintenance
- Battery maintenance
- Navigation equipment maintenance
- Ground tackle maintenance
- Equipment marking maintenance
- Passenger and crew space maintenance

Chapter 11
Documentation

Policy

It is company policy to ensure that procedures are developed to control all documents and data relating to the SMS in accordance with 33 CFR 96.250(k) of the ISM Code. All valid documents will be available in the appropriate locations. Changes to documents will be reviewed and approved by authorized personnel and outdated documents will be promptly destroyed.

Policy Implementation

Details of the SMS document control procedures are contained in the various Vessel Operating Procedures located in Chapter 7 of this manual.

References

46 CFR 176.302, 176.306, 184.502, 184.702, 185.402

Implementation

Document Control

- SMS documentation should include only what is necessary to cover the application of the system to safety and environmental protection.
- Each vessel should carry all documents relevant to that vessel's operations.
- All new documents and changes should be approved prior to issue and be examined for adequacy and user friendliness regularly.
- Documents that are outdated should be destroyed in a timely manner.

Availability of Documents

- The methods of distributing documents and the place or person designated to keep them should be clearly defined.
- SMS documentation relevant to the ship should be placed on board, and the master will be responsible for the control of these documents. A person ashore should also be designated to monitor the control, amendment, approval, and distribution of SMS documentation.

Changes to Documents

- Changes to existing documents should be readily identifiable; relevant personnel, including personnel ashore, should be notified of all changes.
- Personnel affected by the changes should be involved in defining and implementing the changes.

Obsolete Documents

- Obsolete documents should be removed and destroyed. Only the person responsible for the documentation control should retain copies of obsolete documents.

Chapter 12
Company Verification and Review

Policy

It is company policy to ensure that procedures developed within the SMS are being enacted properly and in accordance with 33 CFR 96.250(k) of the ISM Code. The company will schedule periodic evaluations of the safety management system's efficiency and review of the system in accordance with the established procedures of the company, when needed. The company should determine types and frequency of internal audits, when they are required, how they are reported, and possible corrective actions, if necessary. There should be determining factors for the selection of personnel, independent of the area being audited, to complete internal company and vessel audits. The procedures for communication and reporting of internal audit findings for critical management review and to ensure management personnel of the area audited take timely and corrective action of deficiencies found should be documented.

Policy Implementation: SMS Internal Auditing

General

This procedure provides the company with an internal auditing tool to ensure the Safety Management System currently implemented is being maintained and enforced throughout the company.

Responsibility

The designated person is responsible to ensure that scheduled company and vessel SMS internal audits are performed and any non-conformities are documented and remedied.

Procedure

Reporting lines relating to the internal SMS auditing must be clearly defined and incorporated all levels within the safety management organizational structure (See page 7).

Before the audit:

- schedule audits far enough in advance in order to give proper notification to all personnel necessary for the audit, in particular the auditee.

During the audit, auditors should:

- equip themselves with relevant documentation.
- interview personnel regarding operational procedures.
- observe how operations are carried out.

- fill out a non-conformity report if necessary.

After completing the audit, auditors must:

- report to the relevant head of the office or master of the ship being audited.
- prepare a documented report containing all major audit findings (see next page for sample internal audit report form).
- ensure that the audit reports are distributed to relevant personnel in the safety management system. See below for distribution list.

Distribution List

Name	Title

Example Internal SMS Audit Plan

Internal SMS Audit Plan	Date
Department/Vessel	Audit No.
Auditor	Auditee
Opening meeting Begins at: Closes at: Present: Details:	
Conduct of audit (where more than one element is to be audited, several start and finish times may be given, i.e., one for each element) Begins at: Closes at: Details:	
Closing meeting Begins at: Closes at: Present: Details:	

Example Internal SMS Audit Report

Internal SMS Audit Report		Date
Department/Vessel		Audit No.
Auditor		NCR/CAR No.
Auditor/Auditee		
ISM Reference SMS Reference		
Non-conformity Statement Signatures	Auditor	Auditee
Proposed Corrective Action Immediate Action(s) Date for Completion Further Action(s): Date for Completion Signatures	Auditor	Auditee
Verification of Corrective Action Follow Up Details: Corrective Action(s) Closed Out Signatures Signatures		Auditor Designated Person

Guidelines for the Internal SMS Audit Report

All audit report forms should be completed in a consistent manner regardless of the auditor. All auditors should be given adequate instruction in completing this form.

Date:
The date on which the audit took place.

Department/Vessel
Name of the shore-based office, department, vessel, or vessel department

Audit no.
All audits should be given a unique number allocated by the designated person.

SMS element audited
This should identify the specific element(s) in the documented SMS being audited.

NCR/CAR no.
Non-conformity/corrective action request number. This number should be allocated by the auditor. A unique number should be given to every NCR/CAR. (See page 114 for a sample non-conformity report.)

Auditor
The name of the auditor.

Auditee
The name of the head of department, the master of the vessel, or the head of the shipboard department being audited. In cases of doubt as to the identity of the auditee, the most senior person should be selected.

ISM Reference
The reference(s) to the part(s) of the ISM Code being audited.

SMS Reference
The reference to the part of the documented SMS being audited. This may be the identity number and title of a specific manual, such as the Emergency Procedures, or the Shipboard Operational Procedures, or specific procedures within it.

Non-Conformity Statement
A non-conformity statement should meet the requirements as detailed in the internal SMS audit guidelines.

Proposed Corrective Action
CARs should be raised and agreement reached on action(s) and scheduled for completion. This requires agreement between the auditor and the auditee.

Where necessary to ensure safe operations and environmental protection in the short term, immediate action(s) should be taken. A date should be agreed for the completion of the immediate action(s).

In addition, and where necessary, further corrective actions should be agreed. This may involve change of procedure, additional crew training, provision of new equipment, etc. A date for completion of further corrective action should be agreed.

Verification of Corrective Action

Follow up details should be recorded. These should identify precisely the way in which the corrective action is to be verified and should refer to the evidence required for verification. It may not always be possible for the auditor to make a return visit to the ship to verify a corrective action. As a result, the follow up process may be delegated to an appropriate person.

A final signature is required from the designated person.

ISM Code: 96.250(a) Safety and environmental policy statements

Questions	Yes	No	Comments
Has the Company established a safety and environmental protection policy?	☐	☐	
Does the policy describe how the Company ensures:			
• safety at sea?	☐	☐	
• prevention of human injury or loss of life?	☐	☐	
• avoidance of damage to the environment?	☐	☐	
• avoidance of damage to property?	☐	☐	
• compliance with mandatory rules and regulations and takes into account all national, international and industry guidelines, standards and codes?	☐	☐	
Does the policy state the Company's intention to strive towards continuous improvement in safety awareness and safety management?	☐	☐	
Is the policy implemented and maintained at all levels of the Company, both vessel-based and shore-based?	☐	☐	
Has the policy been updated since last audit?	☐	☐	If yes, when?_____ What is the new revision number?_____

Additional Comments:

ISM Code: 96.250(b) Company responsibilities and authority statements

Questions	Yes	No	Comments
Is the owner's name and details of his or her responsibility of the Company and vessel(s) provided?	☐	☐	
Are the full details of the ship operator provided, if other than the owner?	☐	☐	
Is the responsibility, authority and interrelation of all personnel who manage, perform and verify work relating to the SMS defined and documented?	☐	☐	
• Since the last audit, have there been any changes in responsibility or authority relating to the SMS for any position?	☐	☐	If yes, are the changes reflected in the SMS? ☐ Yes ☐ No Have all personnel affected by this change been informed? ☐ Yes ☐ No
Is the company adequately providing the necessary resources and shore-based support to enable the designated person to fulfill his or her responsibilities in regards to the SMS?	☐	☐	If no, explain._____

Additional Comments:

ISM Code: 96.250(c) Designated person to oversee the safety management system for company and vessel

Questions	Yes	No	Comments
Is there a person(s) designated with the responsibility to oversee the SMS for the company and vessel(s)?	☐	☐	_____ _____
Has the identity of the designated person changed since the last audit?	☐	☐	If yes, who is the new designated person(s)? _____ _____
Does the designated person(s) have direct access to the highest level of managemrent?	☐	☐	_____ _____
Does the designated person(s) have the responsibility to monitor the safety and environmental aspects of each vessel?	☐	☐	If no, explain._____ _____
Does the designated person(s) have written authority to ensure there are adequate support and shore-based resources for vessel(s) operations?	☐	☐	_____ _____ _____
Has there ever been an occassion when shore-based management has not supported the authority of the designated person(s)?	☐	☐	If yes, explain._____ _____ _____

Additional Comments:

ISM Code: 96.250(d,e) Written statements defining the Master's responsibilities and authorities as well as the overriding responsibility and authority to make vessel decisions

Questions	Yes	No	Comments
Is there a job description or some other written statement that defines the Master's responsibilities and authorities?	☐	☐	
Does the job description or written statement define the Master's responsibilities to:			Does the Master carry out these responsibilities?
			Yes **No** **Comments**
• Carry out the company's safety and environmental policies?	☐	☐	☐ ☐
• Motivate the vessel's crew to observe the safety management system policies?	☐	☐	☐ ☐
• Issue orders and instructions in a clear and simple manner?	☐	☐	☐ ☐
• Make sure that specific requirements are carried out by the vessel's crew and shore-based resources?	☐	☐	☐ ☐
• Review the safety management system and report non-conformities to shore-based management?	☐	☐	☐ ☐
Does the written statement or job description specify that the Master has:			
• the overriding responsibility and authority to make vessel decisions?	☐	☐	
• the ability to make decisions about safety and environmental pollution?	☐	☐	
• the ability to request the company's help when necessary?	☐	☐	
Has there been an occasion when the company has not responded to the Master's request for help or questioned the Master's decision?	☐	☐	If yes, explain.

Additional Comments:

ISM Code: 96.250(f) Personnel procedures and resources which are available ashore and aboard the vessel

Questions	Yes	No	Comments
Is the Master properly qualified for command?	☐	☐	
Does the Master know the Company's safety management system?	☐	☐	
Is the Company providing the necessary support for the Master to safely perform his or her duties?	☐	☐	
According to national and international requirements, is the crew on each vessel properly:			
• qualified?	☐	☐	
• certificated?	☐	☐	
• medically fit?	☐	☐	
Are new personnel and personnel transferred to new assignments involved with the safety and protection of the environment properly introduced to their duties?	☐	☐	
Do the personnel involved with the Company's SMS know the relevant rules, regulations, codes and guidelines?	☐	☐	
Is training necessary for the support the SMS for all personnel concerned:			
• Identified?	☐	☐	
• Provided?	☐	☐	
Are all the relevant procedures for the vessel's personnel involved with the SMS communicated in a language that is understood by them?	☐	☐	
Are personnel able to communicate effectively when carrying out their SMS duties?	☐	☐	

ISM Code: 96.250(g) Vessel safety and pollution prevention operation plans and instructions for key shipboard operations.

Questions	Yes	No	Comments
Are all tasks related to vessel safety and pollution prevention defined?	☐	☐	
• Have procedures for these tasks been developed and put in place?	☐	☐	
• Are these procedures followed?	☐	☐	
• Is there a method in place for updating these procedures, indicating that a change has been made, and informing the appropriate individuals of the change?	☐	☐	
Have qualified personnel been assigned responsibility for these tasks?	☐	☐	

Additional Comments:

ISM Code: 96.250(h) Emergency preparedness procedures

Questions	Yes	No	Comments
Have all potential shipboard emergency situations been identified?	☐	☐	
Has the company developed emergency response procedures for potential emergency shipboard situations?	☐	☐	
• Do the procedures provide guidance on particular methods of dealing with emergencies?	☐	☐	
• Do the procedures indicate emergency reporting requirements?	☐	☐	
• Are crew members familiar with these procedures?	☐	☐	
• Are these procedures carried out by all applicable personnel?	☐	☐	
• Is there a method in place for updating these procedures, indicating that a change has been made and informing the appropriate individuals of the change?	☐	☐	
Has the company established procedures for holding emergency drills and exercises?	☐	☐	
• Are drills and exercises used as a method of shipboard crew training?	☐	☐	
• Are drills and exercises recorded?	☐	☐	
Is the company's organization able to respond at anytime to hazards, accidents, and emergency situatons involving the vessel(s)?	☐	☐	
• Does the shore-based organization have a copy of the most up-to-date shipboard emergency procedures?	☐	☐	
• Does the shore-based organization have access to ship particulars?	☐	☐	

Additional Comments:

ISM Code: 96.250(i) Reporting procedures on required actions.

Questions	Yes	No	Comments
Is there a method in place to allow for the reporting of non-conformities of the SMS?	☐	☐	
Is there a method in place to allow for accident reporting?	☐	☐	
Is there a method in place to allow for reporting hazardous situations to the owner or company?	☐	☐	
Does the reporting system ensure that reported items are investigated and analyzed with the objective of improving safety and pollution prevention?	☐	☐	

Additional Comments:

ISM Code: 96.250(j) Vessel maintenance procedures.

Note: These procedures must verify that a company's vessel(s) is maintained in conformity with the provisions of relevant rules and regulations, with any additional requirements which may be established by the company.

Questions	Yes	No	Comments
Are there procedures in place where:			
• the vessel's equipment, hull and machinery are inspected at the appropriate intervals?	☐	☐	
• non-conformities with their possible causes are reported?	☐	☐	
• appropriate corrective actions are taken?	☐	☐	
• records of these actions are kept?	☐	☐	
• specific equipment and technical systems that may result in a hazardous situation if a sudden operational failure occurs are identified?	☐	☐	
• measures are identified that promote the reliability of the equipment and technical systems?	☐	☐	
• standby arrangements and equipment or technical systems not in continuous use are regularly tested?	☐	☐	
• all vessel maintenance inspections required are included into the vessel's operational maintenance routine?	☐	☐	

Additional Comments:

ISM Code: 96.250(k) Safety management system document and data maintenance.

Questions	Yes	No	Comments
Are procedures in place which establish and maintain control of all documents and data relevant to the SMS?	☐	☐	
Does each vessel carry on board all documents relevant to that vessel's operation?	☐	☐	
Are changes to documents reviewed and approved by authorized personnel?	☐	☐	
Are outdated documents promptly destroyed?	☐	☐	

Additional Comments:

ISM Code: 96.250(l) Safety management system internal audits.

Questions	Yes	No	Comments
Are periodic evaluations of the SMS's efficiency according to company procedures being conducted?	☐	☐	
Is it stated in the auditing procedure how the types and frequencies of internal audits are reported?	☐	☐	
Is it stated in the auditing procedure how possible corrective actions are reported?	☐	☐	
Is it stated in the auditing procedure how personnel (independent of the area being audited) are selected to complete the vessel and company audits?	☐	☐	
Are audit findings communicated and reported for: • critical management review? • ensuring management personnel of the area audited that timely and corrective actions are taken on deficiencies found?	☐ ☐	☐ ☐	

Additional Comments: