



Foreign Passenger Vessel Examiners Tactics, Techniques, and Procedures (TTP)



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COAST GUARD TACTICS, TECHNIQUES, AND PROCEDURES (TTP) 3-72.2A

Subj: FOREIGN PASSENGER VESSEL EXAMINERS (FPVE)

- Ref:
- (a) USCG Marine Safety Manual, COMDTINST M16000.7 (series), Vol. II: Materiel Inspection, Section D: Port State Control, Chapter 7: Procedures Applicable to Foreign Passenger Vessels
 - (b) Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08
 - (c) SOLAS: Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: Articles, Annexes and Certificates (Incorporating all amendments in effect from 1 July 2009), International Maritime Organization (IMO)
 - (d) Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04
 - (e) Revised List of Certificates and Documents Required to Be Carried on Board Ships, International Maritime Organization (IMO), MSC.1/Circ. 1409
 - (f) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978 (2010), Chapter V: Special Training Requirements for Personnel on Certain Types of Ships
 - (g) Navigation Safety Regulations, Code of Federal Regulations (CFR), Title 33, Part 164
 - (h) Navigation Safety Equipment Testing Required under 33 CFR 164.25 for Cruise Ships, COMDT (G-MOC) Policy Letter 02-05
 - (i) International Convention for the Prevention of Pollution from Ships (MARPOL), International Maritime Organization (IMO), Annex VI: Prevention of Air Pollution from Ships
 - (j) Load Line Certificate and International Convention on Load Lines, 1966 and Protocol of 1988, as amended in 2003 (2005 Consolidated Edition)
 - (k) Cruise Vessel Security and Safety Act (CVSSA) of 2010
 - (l) International Ship and Port Facility Security (ISPS) Code, International Maritime Organization (IMO)
 - (m) Cruise Vessel Security and Safety Act (CVSSA) of 2010 Implementation Procedures, COMDT (CG-543) Policy Letter 11-09

- (n) Cruise Vessel Security and Safety Act (CVSSA) of 2010; Implementation of Training Standards and Curricula, COMDT (CG-543) Policy Letter 11-10
- (o) Maritime Transportation Security Act of 2002
- (p) Maritime Security: Vessels, Code of Federal Regulations (CFR), Title 33, Part 104
- (q) Coast Guard Port State Control Targeting and Examination Policy for Vessel Security and Safety, Navigation and Vessel Inspection Circular (NVIC) 06-03, Change 2
- (r) Adoption of the International Code for Fire Safety Systems (FSS) Code, Annex 6, Resolution MSC 98(73) (as amended)
- (s) International Code for Fire Safety Systems (FSS Code), 2007
- (t) Adoption of Amendments to the International Code for Fire Safety Systems (FSS Code), Annex 5, Resolution MSC.311(88)
- (u) Marine Safety Center (MSC) Guidelines for Review of Overhanging Decks, Plan Review Guidance: SOLAS-29
- (v) Marine Safety Center (MSC) Guidelines for Protection of Deck Openings in Two Deck Spaces, Plan Review Guidance: SOLAS-13
- (w) Port State Control Guidance for Examination of Fixed CO2 Firefighting Systems and Conducting Fire Drills onboard Cruise Ship during Scheduled Examinations, CG-CVC-2
- (x) Port State Control (PSC) Information for Feb 2012 A. R 061744Z JUN 11 1. Harmonization of PSC Efforts: Cruise Ship Guidance as It Pertains to Passenger Musters
- (y) Marine Safety Center (MSC) Guidelines for Locks and Latches in Doors in Escape Paths, Plan Review Guidance: SOLAS-49
- (z) Marine Safety Center (MSC) Guidelines for Room-In-Room Construction, Plan Review Guidance: SOLAS-25
- (aa) Guidelines for the Evaluation, Testing, and Application of Low-Location Lighting on Passenger Ships, International Maritime Organization (IMO) Assembly Resolution A.752(18)
- (bb) COMDT COGARD Washington DC 021939Z Nov 98, Examination of Laundry Room Ventilation Ducting on Cruise Ships
- (cc) The Merchant Shipping (Minimum Standards) Convention, 1976 (ILO 147) and Port State Control (PSC), COMDINST 16711.12 (series)
- (dd) Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, Resolution MEPC.107 (49)
- (ee) Equipment Tests and Inspections, Code of Federal Regulations (CFR), Title 33, Section 156.170
- (ff) Guidelines for the Inspection of Oily Water Monitor and Separator Systems, COMDT (G-MOC) Policy Letter 04-13, series

- (gg) Guidance for the Enforcement of MARPOL Annex I during Port State Control Examinations, COMDT (G-PCV) Policy Letter 06-01
- (hh) Voluntary Compliance with International Sewage Regulations in Annex IV to MARPOL 73/78, Navigation and Vessel Inspection Circular (NVIC) 1-09
- (ii) 2012 Guidelines for the Implementation of MARPOL Annex V, Resolution MEPC.219(63)
- (jj) Unified Interpretations of SOLAS Chapter II-2, the FSS Code, the FTP Code and Related Fire Test Procedures, Navigation and Vessel Inspection Circular (NVIC) 6-05
- (kk) Guidelines for the Coast Guard Evaluations of Compliance with the U.S. Environmental Protection Agency's (EPA) Vessel General Permit (VGP) for Discharges Incidental to the Normal Operation of Vessels, COMDT (CG-543) Policy Letter 11-01
- (ll) Ballast Water Management for the Control of Aquatic Nuisance Species in the Waters of the United States, Navigation and Vessel Inspection Circular (NVIC) 07-04, Change 1
- (mm) MARPOL Consolidated Edition 2006
- (nn) Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010
- (oo) Enforcement Actions for U.S. and Foreign Flagged Passenger Ships on International Voyages Having Survival Craft Not Fit for Service, COMDT (G-PCV) Policy Letter 06-08
- (pp) Operator Requirements for Foreign Flagged Cruise Ships Using Lifeboats as Tenders, COMDT (G-MOC) Policy Letter 05-03
- (qq) Rights of Appeal, Code of Federal Regulations (CFR), Title 46, Section 1.03

1. PURPOSE. To provide examiners with Coast Guard tactics, techniques, and procedures (CGTTP) on Foreign Passenger Vessel Exams (FPVEs).
2. ACTION. The provisions of this CGTTP apply to all personnel involved in examinations of Foreign Passenger Vessels (FPVs). Internet release is authorized.
3. DIRECTIVES/TTP AFFECTED. This revision replaces Foreign Passenger Vessel Examiners (FPVE), CGTTP 3-72.2.
4. DISCUSSION. Foreign passenger vessels that embark passengers at United States ports or that visit U.S. ports with U.S. citizens embarked as passengers must be verified on an annual basis before the Certificate of Compliance (COC) expires, and at least once during the period of validity of the COC. This publication provides the step-by-step guidance to perform the many tasks involved with conducting the examinations of FPV's.

5. MAJOR CHANGES. This revision to CGTTP 3-72.2 removes the “For Official Use Only (FOUO)” marking. The Cruise Ship National Center of Expertise (CSNCOE) requested this designation change to enable transparency of information supporting Coast Guard training initiatives and ensure the cruise ship industry has access to and clearly understands Coast Guard expectations for annual and periodic examinations.
6. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is itself a rule. It provides guidance for Coast Guard personnel and does not impose legally-binding requirements on any party outside the Coast Guard.
7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. While developing this publication, Integrated Process Team (IPT) members examined environmental considerations under the National Environmental Policy Act (NEPA) and determined they are not applicable.
8. DISTRIBUTION. FORCECOM TTP Division posts an electronic version of this TTP publication to the CGTTP Library on CGPortal. In CGPortal, navigate to the CGTTP Library by selecting References, Tactics, Techniques, and Procedures (TTP), and then TTP Library. FORCECOM TTP Division does not provide paper distribution of this publication.
9. RECORDS MANAGEMENT CONSIDERATIONS. Integrated Process Team (IPT) members thoroughly reviewed this publication during the TTP coordinated approval process and determined there are no further records scheduling requirements per Federal Records Act, 44 U.S.C. Chapter 31 § 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This publication does not have any significant or substantial change to existing records management requirements.
10. FORMS/REPORTS. None.
11. REQUEST FOR CHANGES. Submit recommendations for TTP improvements or corrections via email to FORCECOM-PI@uscg.mil or through the TTP Request form on CGPortal. In CGPortal, navigate to the TTP Request form by selecting References, Tactics, Techniques, and Procedures (TTP), and then TTP Request.

Info COMCOGARD FORCECOM NORFOLK VA//FC-P// on message traffic containing lessons learned applicable to this TTP publication.

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By Direction of Commander, Force Readiness
Command

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Chapter 1: Introduction

Introduction

This chapter provides an examination overview for annual or periodic Certificate of Compliance (COC) Exams on foreign passenger vessels (FPVs) per reference (a) and reference (b). It also defines the use of notes, cautions, and warnings in tactics, techniques, and procedures (TTP) publications.

In This Chapter

This chapter contains the following sections:

Section	Title	Page
A	Introduction	1-2
B	Notes, Cautions, and Warnings	1-3

Section A: Introduction

A.1. Introduction

FPVs that embark passengers at U.S. ports or that visit U.S. ports with U.S. citizens embarked as passengers must be verified on an annual basis before the COC expires, and at least once during the period of validity of the COC.

The USCG performs examinations to ensure FPVs continue to maintain all systems per applicable regulations. Examinations also ensure the systems examined during the Initial Control Verification Exam (ICVE) are maintained and the recognized organization (RO) and flag administration have performed annual renewal surveys as required by reference (c) regulations.

Exams are conducted in a holistic manner, viewing shipboard materiel condition combined with ship operations as a single system. This system when combined with the aspects of human factors and influences form the overall ability to operate safely.

NOTE:

Materiel Inspection: Due to the size and complexity of modern cruise ships, it is imperative that the exam team progress through the exam using a holistic approach as efficiently as possible to verify all areas of greater fire risk and as many public and crew common spaces as possible. Systems are located in every space aboard cruise ships; the examiner uses the holistic exam to ensure all systems work together meeting safety and compliance regulations.

NOTE:

USCG personnel facilitate examinations on FPVs to ensure proper, prescribed operation of required equipment and systems. Only authorized vessel crewmembers activate equipment and systems.

Section B: Notes, Cautions, and Warnings

B.1. Overview The following definitions apply to notes, cautions, and warnings found in TTP publications.

NOTE: **An emphasized statement, procedure, or technique.**

CAUTION: **A procedure, technique, or action that, if not followed, carries the risk of equipment damage.**

WARNING: *A procedure, technique, or action that, if not followed, carries the risk of injury or loss of life.*

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Chapter 2: Preparation and Pre-Examination Procedures

Introduction This chapter discusses foreign passenger vessel examiner (FPVE) preparations prior to the exam.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Pre-Examination Phase	2-2

Section A: Pre-Examination Phase

A.1. Prepare for the Exam

Description of required exams per reference (b):

Annual Exam: The focus of testing shipboard systems is to ensure the vessel is in the same operating condition it was during the initial COC exam. Other components of the exam include:

- Witnessing a fire and abandon ship drill to ensure satisfactory crew training.
- Verifying the vessel has appropriate required statutory documents, licensed personnel, certifications, and records.
- Conducting a waste stream audit per reference (d) and testing of the oily water separator (OWS).

Periodic Exam: The focus is on performance of officers and crew during fire and abandon ship drills. Other components include:

- Verifying the vessel has the appropriate required statutory documents, licensed personnel, certifications, and records.
- Conducting a waste stream audit per reference (d) and testing of the OWS.

NOTE:

Examiners can vary the scope of examination depending upon the materiel condition of the vessel, maintenance of the vessel, and professionalism and training of the crew.

A.1.a. Schedule the Exam

Schedule the exam in advance.

- Vessel's master or other company representatives call or email to schedule the exam.
- Screen vessel using information from the Advanced Notice of Arrival. Use the [Marine Information for Safety and Law Enforcement \(MISLE\)](#) database to determine if a vessel, which has not already scheduled an exam in another port, is due for an exam.
- Contact the vessel or the cruise line company if vessel is due and has not already scheduled the exam.

A.1.b. Pre-exam
Communication
with Ship
Personnel

The lead FPVE communicates with the vessel prior to the exam to ensure logistics and organization of the exam is set.

- The lead FPVE sends an email to the vessel's master at least a week prior to exam. (Examples are located here: <https://cgportal2.uscg.mil/units/csncoe/SitePages/Home.aspx>).
- Explain the scope of the exam.
- Request a copy of the vessel's Passenger Ship Safety Certificate (PSSC) to include the Record of Equipment for the Passenger Ship Safety Certificate (Form P), and Continuous Synopsis Record (CSR).
- Request a description of any modifications to the vessel since the last exam.
- Identify resources needed from the vessel for the exam. Include equipment for fire detection and suppression, machinery, lifesaving, and waste stream testing.
- Request all emergency response written procedures are available.
- Request vessel's schedule while in port, (i.e., other government agencies aboard, bunkering or dive operations, maintenance, surveys).
- Request copies of any outstanding conditions of class.

A.1.c. Paperwork
to Bring Aboard
the Vessel

Prepare the following paperwork to bring aboard the vessel:

- Certificate of Compliance (CG-3585).
 - Owner/operator name and address from CSR.
 - Total persons allowed aboard and total passengers allowed aboard as identified on the PSSC.
 - Signed by the officer in charge, marine inspections (OCMI) or designee.
- Certificate of Compliance for tenders if used in U.S. waters.
 - Owner/operator name and address from CSR, same for vessel's COC.
 - Total persons allowed aboard as identified on the tender certificate.
 - Signed by the OCMI or designee.
- [FPVE Process Guide](#) for each team member.
- Vessel critical profile.

- New regulations and policies as needed.
- Copy of the email sent to the master.
- Reference (d).

NOTE:

COC for tenders: If the ship has boats other than its lifeboats used as tenders and not listed on the ship's PSSC, separate PSSCs are required for that watercraft. See [Chapter 12: Survival Equipment](#) for detailed instructions on tenders.

A.1.d. Prepare
Team

NOTE:

Considering the average size of modern cruise ships, it is conceivable that FPV exams could take longer than the average 5 to 6 hours. As such, in order to more effectively and efficiently carry out the exam, a minimum of three qualified FPVEs per exam and one qualified Port State Control (PSC) examiner is required to make up the examination team.

NOTE:

Units unable to provide sufficient qualified members to lead each section of the exam should exercise one of the following options:

- 1. Taking into consideration the size of the vessel, have a FPVE qualified team member complete more than one section of the exam;**

-OR-

- 2. Request assistance from nearby units or the Cruise Ship National Center of Expertise (CSNCOE) via the chain of command;**

-OR-

- 3. As dates allow, coordinate with other ports on the vessel's itinerary to conduct/complete a required examination at a later port call.**

NOTE:

In no case may an exam be moved back past the expiration date of the vessel's COC.

- Lead FPVE makes team assignments as outlined in the [FPVE Process Guide](#).
- Advise team on uniform for boarding. Coveralls are the recommended team uniform.

- Meet with examination team to discuss scope of the exam. Planning meeting prior to the exam ensures the exam is conducted efficiently. Review and discuss the following topics:
 - History of vessel, special notes, and statutory documents (if provided).
 - Modifications made to the vessel (reviewed by class/flag/Marine Safety Center (MSC)).
 - Use of camera(s) to document issues found on the vessel (easier to describe to ship's officers not present when deficiencies are found).
 - Safety brief to include:
 - Watertight door danger and safety.
 - Machinery space hazards (slips, trips, and falls).
 - Electrical safety.
 - Longshoremen during hull walk.
 - Crew/liferaft safety during the drill.
 - Crew personnel protection equipment (PPE)/equipment:
 - Hearing protection.
 - Steel-toed boots.
 - Flashlight.

CAUTION:

Discuss hazards unique to cruise ship operation such as replenishing (I-95) and intense magnetic fields in main motor rooms.

A.2. Initial Meeting with the Master

This meeting outlines the purpose and scope of the exam to the master, sets timelines for drills, equipment testing, and materiel examination. It also identifies resources needed, outstanding conditions of class, and other government agencies aboard to ensure the entire exam runs smoothly.

A.2.a. Announce
Purpose of Visit

-
- Type of exam.
 - Confirm last USCG exam.
 - Confirm communication and preparation by providing copy of email sent to vessel master.
 - If possible, request presence of staff captain, chief engineer, safety officer, security officer, environmental officer, and hotel director.
-

A.2.b. Set
Timeline and
Scope

- Agree on timeline for exam sequences.
- Communicate scope of exam including:
 - Documents.
 - Lifesaving systems.
 - Firefighting systems.
 - Waste stream audit.
 - Structural integrity.
 - Machinery systems.
 - General walk-through.
 - Security systems.
 - Drills.
 - Identifying resources needed to complete the exam (i.e., smoke spray/access keys).
 - Confirm time of passenger muster.

NOTE:

At embarkation port, lead examiner notifies the master that the Coast Guard requires a passenger muster as part of the exam. The exam is not considered complete until the examination team has witnessed the passenger muster.

- Determine:
 - Last bottom survey (completed twice in 5 years not to exceed 36 months).
 - Any operations that could affect exam, including bunkering ops, diving ops, or ship repairs, etc.
 - If there is a major crew turnover.
 - Other U.S. government agency inspections that could affect crew or the USCG exam, including Customs and Border Protection (CBP) or U.S. Public Health Service (USPHS).
 - Any modifications to the ship since the last USCG exam.
 - Outstanding conditions of class.

NOTE:

Per Chapter I of reference (c), the bottom survey is an annual requirement, but the International Maritime Organization (IMO) adds clarity: One or two drydock surveys in 5 years supplemented with three or four in-water surveys during that 5-year period satisfies the annual bottom survey requirement. A reduction to one drydock in 5 years must be approved by the administration.

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Chapter 3: Ship's Documents and Hull Walk

Introduction This chapter discusses collection and review of all pertinent ship's documents for validity and proper certification and endorsement. It also provides procedures to be completed during a complete hull walk.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Ship's Documents	3-2
B	Hull Walk	3-5

Section A: Ship's Documents

A.1. Vessel Documents

Verify the vessel's statutory documents, plans, records, and logs as well as the crew's licenses and endorsements per reference (e).

A.1.a. Licenses and/or Flag State Endorsements

Verify the following:

- Quantity of licensed officers meets the Safe Manning Certificate.
- License certificate numbers are found on flag state endorsement certificate.
- Documents are not expired.
- Document belongs to the proper person.
- Level of competency matches or exceeds job done by the individual.
- Crew medical certificates.
- International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW) basic safety training.

Mandatory minimum requirements for specific passenger ship training per reference (f).

- Crowd Management Training (personnel designated on muster lists to assist passengers in emergency situations).
 - Safety Training for personnel providing direct service to passengers in passenger spaces.
 - Crisis Management and Human Behavior Training (masters, chief engineer officers, chief mates, second engineer officers and any person having responsibility for the safety of passengers in an emergency situation).
 - Passenger Safety, Cargo Safety, and Hull Integrity Training (masters, chief mates, chief engineer officers, second engineer officers and persons assigned immediate responsibility for embarking and disembarking passengers, for loading, discharging, or securing cargo, or for the closing hull openings on board roll-on/roll-off (RO-RO) passenger ships).
-

A.1.b. Certificates

Verify the following:

- Certificate of Registry.
- Classification Document.
- International Tonnage Certificate (ITC).
- Passenger Ship Safety Certificate (PSSC).
- Passenger Ship Safety Certificate, Record of Equipment (PSSC Form P).
- International Load Line Certificate.
- Document of Compliance (DOC) International Safety Management Code (ISM).
- Safety Management Certificate (SMC).
- Minimum Safe Manning Certificate.
- International Oil Pollution Prevention Certificate (IOPP).
- International Air Pollution Prevention Certificate (IAPP).
- Engine IAPP (EIAPP) (for each engine) and EIAPP Supplements.
- International Ship Security Certificate (ISSC).
- Continuous Synopsis Record (CSR).
- International Anti-Fouling System Certificate.
- Lifeboat/Tender Safety Equipment Certificate (as appropriate, see [Chapter 7: Drills](#) for further details).
- Exemption Certificate (PSSC).
- International Energy Efficiency Certificate (IEE).
- High-Speed Craft Safety Certificate (as applicable).
- Permit to Operate High-Speed Craft (as applicable).

**A.2. Log Books,
Plans, and Other
Records**

Verify the following:

- Garbage management plan.
- Training logs/drill records per vessel/company specific International Convention for the Safety of Life at Sea (SOLAS) training manual.
- Safety Management System for designated person, procedures for reporting non-conformities, procedures for preparations and response to emergency situations, vital equipment list, etc.
- Decision Support System for masters.

- Shipboard oil pollution emergency plan (SOPEP) approval letter.
- Non-tank vessel response plan (NTVRP) approval letter.
- Ballast water management (BWM) plan and records (see [Chapter 9, Section C: Ballast and Bilge System](#) for more details).
- Vessel/USCG search and rescue (SAR) plan.
- Bunker delivery notes/fuel sample aboard (as applicable).
- List of limitations per Chapter V of reference (c).
- Intact stability booklet.
- Damage control plans and booklets.
- Oil record book.
- Pre-arrival/pre-departure check per Section 164.25 of reference (g).
- Captain of the Port (COTP) waiver of reference (h) (if applicable for the exam port COTP zone).
- Shipboard energy efficiency management plan (SEEMP) (if applicable).

NOTE:

The SEEMP does not require flag administration or classification society approval, but it must be aboard (per reference [i]). If performance of the IAPP intermediate/renewal survey is not complete for a vessel, issuance of an IEE Certificate could be delayed.

**A.3.
Equivalencies or
Alternative
Arrangements**

Verify any equivalencies or alternative arrangements to the requirements of SOLAS granted per Chapter II-1 of reference (c), Chapter II-2 of reference (c), and Chapter III of reference (c) are approved by the flag state.

Section B: Hull Walk

B.1. Complete Hull Walk

- Verify the condition of shell plating for:
 - Fractures, corrosion, wastage, pitting, or other damage that affects vessel's seaworthiness.
 - Hoses, piping, or other devices used for overboard discharges.
- Verify the condition and position of side shell openings:
 - Identify number of open side shell doors and match with side shell door indicator on bridge.
- Verify position of subdivision/load line markings including:
 - P1 (ship's keel laid on or after July 1, 2009) Principal Passenger Condition (C1 ships prior to June 1, 2009).
 - P2 (ship's keel laid on or after July 1, 2009) roll-on/roll-off (vessel) (RO-RO) Passenger/Cargo loading (C2 ships prior to June 1, 2009).
 - Proper class society markings.

NOTE:

Verify the subdivision mark on passenger vessels is not submerged.

- Markings are permanent and in contrasting colors.
- Verify the position of other markings with regard to reference (j):
 - Draft marks.
 - Ship identification number (IMO Number).
- Verify visual condition of lifesaving apparatus paying attention to any obvious damage or newly repaired areas (looking from pier).
- Verify:
 - Vessel security measures. (See [Chapter 5, Section A: Vessel Security Systems](#)).

WARNING:

Fork lift safety – Be aware of surroundings, especially on the pier where fork lift operators often drive carelessly and quickly.

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Chapter 4: Bridge Safety and Navigation Equipment

Introduction This chapter discusses the various electronic and other supporting navigation systems of the modern cruise ship and those various components that are considered during the examination.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Bridge Safety and Navigation Equipment	4-2

Section A: Bridge Safety and Navigation Equipment

A.1. Introduction This section introduces procedures used to check bridge safety and navigation equipment, including documents required by Chapter IV of reference (c), Chapter V of reference (c), and reference (g). Ensure vessel deck officer is in attendance to facilitate this portion of the exam.

A.2. Voyage Data Recorder (VDR) Verify the proper installation of the voyage data recorder (VDR):

- Annual service complete, to include certificate.
- Installation of the storage device and hydrostatic release.
- Secured against tampering.
- Microphone location on bridge.
- Status of mandatory alarms.
- Power source.

A.3. Vessel Maneuvering Characteristics Verify the following:

- Maneuvering fact sheet.
- Steering gear change-over instructions.
- Log entry for steering tests.
- Rate of revolution log.

A.4. Radar and Navigation Systems Verify serviceability on each of the following:

- Marine radar and automatic radar plotting aid (ARPA) (witness test of one unit).
- Signaling lamp.
- Means of taking bearings.
- Magnetic steering compass.
- Gyrocompass.
- Illuminated steering gyrocompass repeater.
- Illuminated rudder angle indicator.
- Electronic echo depth sounding device with echo depth sounding recorder.
- Pitch indicator for bow and/or stern thrusters.
- Rate of turn indicator.

- Steering gear instructions.
- Electronic position fixing device.
- SAR aircraft radio for lifeboats.
- Global Maritime Distress and Safety System (GMDSS) lifeboat radios.
- Emergency position indicating radio beacon (EPIRB) for ship (float free). EPIRB for lifeboats (not float free).
- Search and rescue transponder (SART). Annually tested on passenger ships, within 3 months before the expiration date of the Passenger Ship Safety Certificate per Chapter IV of reference (c).
 - One on each side of the bridge.
- International Maritime Satellite Organization (INMARSAT) installation/Navigational Telex (NAVTEX) and INMARSAT printers.

A.4.a. Electronic Chart Display and Information System (ECDIS)

Verify Electronic Chart Display and Information System (ECDIS) has a backup arrangement. Can be fully or partially electronic or paper.

A.5. Long Range Identification Tracking (LRIT)

Verify the following:

- Long range identification and tracking (LRIT) equipment or software upgrade.
- Equipment is approved via the presence of a conformance test report issued by the administration-approved application service provider (ASP).
- Documentation review for record of LRIT equipment and satisfactory testing.

A.6. Automatic Identification System (AIS)

- Verify the location of the Automatic Identification System (AIS) pilot plug near the pilot conning station and a 3-prong, 120 volt, and AC outlet.
- Verify AIS is energized and displays the following screens (AIS can be secured while vessel is at pier):
 - Maritime Mobile Service Identity (MMSI) IMO number.
 - Ship name.
 - Type of ship.
 - Location of position fixing antenna on the ship.

- Ship's draft.
- Hazardous cargo (type).
- Destination and estimated time of arrival (ETA).
- Route plan.

NOTE:

Although not a complete list, these are the items typically verified.

**A.7. Vessel
Publications and
Charts**

Verify the following current and corrected charts/publications:

- Lifesaving signal table.
- International Code of Signals.
- Magnetic compass deviation table.
- US Coast Pilot.
- Sailing directions.
- Coast Guard Light List.
- Tide tables.
- Tidal current tables.
- International Rules of the Road.
- Inland Rules of the Road.

NOTE:

Verify an electronic plotting aid, or other means, to plot electronically the range and bearing of targets to determine collision risk.

A.7.a. Log Books

Ensure the following:

- All required logs are maintained.
- All required log entries are complete and up-to-date.

**A.8. Other
Systems on
Bridge (not
related to
navigation
safety)**

Verify operational status of the following:

- Watertight door status panel (green light means closed).
- Fire door (FD) status panel (green light means closed).
- Sprinkler/water mist control panel.

- Fire detection system.
 - Bridge radio distress panel.
 - Radio installation.
 - Radio communication assignments during emergency situation.
 - Emergency source of power for radios.
-

**A.9. Line
Throwing
Appliance/
Distress Visual
Signals**

Verify the following:

- Line throwing appliance with four charges is stowed at or near the navigation bridge and is properly marked and ready for use.
 - At least 12 rocket parachute flares are stowed at or near the navigation bridge. Stow in watertight containers and ensure they are not expired.
-

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Chapter 5: Security Systems

Introduction This chapter discusses the evaluation of a vessel's security program per the general requirements of references (k), (c), and (l).

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Vessel Security Systems	5-2

Section A: Vessel Security Systems

A.1. Vessel Security Measures

The following sections encompass the evaluation of a vessel's security program per the general requirements of Chapter XI-2 of reference (c), reference (l), and reference (m). In most cases, the ship's security officer (SSO) is required during this portion of the exam.

A.2. Cruise Vessel Security and Safety Act (CVSSA) Implementation

Verify Cruise Vessel Security and Safety Act (CVSSA) requirements (logs, monitoring, contact information, security guides, cabin security latches, and cabin peep holes installed per reference [m]):

- Spot check a random number of passenger and crew cabin doors are fitted with peep holes.
- Spot check a random number of exterior passenger cabin balconies rail heights.

NOTE:

Rail heights are at least 42 inches from the flush deck to the top of the uppermost rail on the embarkation deck and other exterior decks throughout the vessel. The rail height can be lower in areas where rails could interfere with lifesaving launching.

- Spot check a random number of passenger cabins are fitted with security latches and time sensitive keys (for vessels built after July 2010).
- Spot check that a Criminal Activity Prevention and Response Guide also known as "Security Guide" is available for each passenger.
- Spot check a random number of passenger cabins have embassy and consulate location information readily accessible.
- The vessel has a policy for confidentiality of sexual assault examination and ensures patient records are not released without the prior knowledge and approval in writing of the patient.
- Vessel's procedures and restrictions concerning which crewmembers can access passenger staterooms and at what times such access is permitted.
- Vessel maintains a log of crimes and incidents.

NOTE:

Task is only to verify vessel has a log aboard to document crimes and incidents.

- A crewmember is trained in crime scene preservation per reference (n).

A.2.a. CVSSA:
Hospital Spaces

Verify the following at the vessel's medical center to ensure compliance with sexual assault medical response per reference (m):

- Vessel maintains adequate anti-retroviral medications as determined by the shipping company.
- Equipment is available for medical exam following sexual assault.
- Medical staff credentials include possession of a current physician's license or registered nurse's license and at least 3 years of post-graduate or post-registration clinical practice in general and emergency medicine; or holds board certification in emergency medicine, family practice medicine, or internal medicine.
- Medical staff is able to provide assistance in the event of an alleged sexual assault and has received training in conducting forensic sexual assault examination.
- Medical staff is able to prepare, provide to the patient, and maintain written documentation of the findings of such examination that is signed by the patient.
- Patient has access to a free, immediate, and private telephone and/or Internet accessible computer terminal to confidentially contact local law enforcement, the FBI, the USCG, the nearest U.S. consulate or embassy, and the National Sexual Assault Hotline program.

**A.3.
International
Ship & Port
Facility Security
Code (ISPS)/
Maritime
Transportation
Security Act
(MTSA)
Requirements**

Per reference (l) and reference (o), verify access control to vessel including:

- Guards at opened side shell doors.
- Interface between shore and ship.
- Crew knowledge regarding vessel security.
- Measures in effect to prevent weapons, dangerous substances, and devices from getting aboard.
- Screening of passengers, crew, and associated luggage.
- Screening of stevedores.
- Cargo and supply screening.
- Security communications.
- Gangway watch checks for IDs.

NOTE:

Government-issued IDs are NEVER to be surrendered at the gangway security, regardless of the vessel policy.

A.4. Security Aspects

- Examiners verify the vessel's security program per the general requirements of Chapter XI-2 of reference (c), reference (p), and reference (l), as applicable for the vessel as outlined in reference (q), paying particular attention to:
 - Performance of ship security duties.
 - Access control to the vessel.
 - Control of embarkation of persons and their effects.
 - Authorized access to and monitoring of restricted areas.
 - Monitoring deck areas and areas adjacent to the ship.
 - Supervision of the handling of cargo and ship stores.
 - Ready availability of security communications.
- Verify records are protected against unauthorized access.
- Spot check the SSO by asking relevant questions about the security personnel and procedures and training.
- Spot check a crewmember with security responsibilities by asking them questions about the security personnel and procedures and training.
- Ship's ability to change Maritime Security (MARSEC) level at any given time.
- Verify the following:
 - Declaration of Security.

A.5. Access to Vessel Restricted Areas

Verify the following:

- Authorized access to and monitoring of restricted areas.
- Signage is posted.

Chapter 6: Firefighting

Introduction This chapter discusses fire protection and the associated systems used to ensure firefighting requirements are met.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	General	6-2
B	Fixed Fire Extinguishing Systems	6-8
C	Structural Fire Protection Elements	6-12

Section A: General

A.1. Fixed Fire Protection System Operating Instructions

Verify the following:

- In common language.
- Easily read under lit conditions.
- Located near the equipment.

A.2. Firefighting Equipment / Technical Lockers

Verify the following:

- Locker inventory conforms to Chapter II-2 of reference (c) and reference (r).
- Firefighter's outfit:
 - Protective clothing of material to protect the skin from the heat radiating from the fire and from burns and scalding by steam. The outer surface shall be water-resistant per reference (r).
 - Rubber boots or other electrically non-conducting material.
 - Rigid helmet providing effective protection against impact.
 - Electric safety lamp (hand lantern).
 - Axe with handle provided with high-voltage insulation.
 - Self contained compressed air-operated breathing apparatus capable of functioning for at least 30 minutes. All cylinders must be interchangeable.

NOTE:

Check Safety Management System (SMS) and manufacturer's instructions for cylinder maintenance.

- Fireproof lifeline of at least 30 meters in length and equipped with a snap hook to attach to the apparatus.
- Additional items required in the technical lockers:
 - Spare charges for breathing apparatus.
 - Water fog applicator.

- Correct number of firefighter's outfits aboard for size of vessel.
- Two additional outfits for each main vertical zone.

NOTE:

All items in the locker are stowed ready for immediate use and clearly marked.

- Contents are posted inside the locker.
- All equipment is readily accessible.
- Each locker, station, and gear is indicated on the fire control plan.
- Locker markings and lighting is available on emergency power.
- Condition of fire extinguishers (see [Chapter 6, Section A.8: Portable Fire Extinguishers](#) for details).
- Maintenance completed per SMS or manufacturer's instructions.

A.3. Fire Patrol

Verify the following:

- Each member is familiar with the vessel's arrangement.
- Fire patrols complete rounds as assigned.

NOTE:

The bridge and engine room control spaces shall be manned per reference (f) when at sea. This provides immediate access to communication centers, fire detection/suppression/isolation and associated systems, and passenger and crew alarms.

NOTE:

When the vessel is in port, the at sea watch is terminated and the hotel nature of the operation is dominant. The potential for fire does not diminish when a vessel is in port. While passengers are on board, the bridge and engine room control spaces shall be manned per reference (f) with qualified individuals who have sufficient training and experience to initiate a prompt and effective response to the detection of smoke and/or fire on the vessel.

**A.4.
International
Shore
Connection**

Verify the following:

- Complete with all parts (bolts, nuts, and gaskets).
- Connection located per the vessels' fire control plan.

**A.5. Section and
Pre-Action
Valves**

In choosing section valves to verify, ensure you get a mix of stations that include upper and lower decks and different main vertical zones.

Verify the following at a section valve station:

- Means to prevent unauthorized operation; for example, a locking device or an addressable alarm that is sounded in a central control station.

NOTE:

If bridge cannot verbally confirm activation of the alarm(s) due to ship operations, examiner identifies the location of the alarm and type, and then requests a printout from the bridge later.

- Legible diagram of the area serviced by the station.
- Valves are labeled (for addressability from the navigation center alarm panel).
- System is under pressure (this is static pressure of system).
- Equipment is accessible and in good working order.
- Spare heads (provided on board).

**A.5.a. Section and
Pre-Action Valve
Tests**

Verify the following crew actions:

- Closes the stop valve.
- If a stop valve is fitted with an alarm, verify that the alarm works as designed after the valve is closed.

NOTE:

On a dry sprinkler system a pre-action or remotely activated stop valve is required. Examiners verify the valve is accessible outside the affected space and can either be operated by manual operation locally or by remote operation. Due to the sensitive locations of dry systems, section valves for these systems are not typically tested during an annual or periodic exam. Verify dry system section valves were tested by the RO during the PSSC exam.

- Attaches test hose to section valve test fitting or open drain valve (causing system pressure to drop).

Examiner verifies the following:

- The flow alarm sounds as designed after the valve is opened and water is verified to be flowing in the pipe.

NOTE:

If bridge cannot verbally confirm activation of the alarm(s) due to ship operations, examiner identifies the location of the alarm and type, and then requests a printout from the bridge later.

- The system pressure drops to a set pressure and causes the automatic starting of pumps to bring system up to operating pressure.
- Alarms and system are restored to normal operation.

A.6. Fire Alarms and Detection Systems

Purpose is to spot check the proper operation of fire alarms (i.e., smoke detectors, heat detectors, and manual call points) throughout vessel. Carry out the check by testing various fire alarms on each deck for each fire zone. In order to quickly proceed or to test more fire alarms, the team takes note of the activated alarms, and at the end of the inspection, the list is compared with the control panel printout or the bridge communicates the address of the activated alarm to the teams via radio or phone per reference (s) and reference (t).

A.6.a. Heat Detectors

Verify the following:

- Activate heat detectors as prescribed by manufacturer until the detector alarms.
- Detector number.

NOTE:

Sounding of the alarm locally depends upon keel date of the vessel.

- Number on the alarm panel matches the detector number and location.
- Heat detectors are in good condition.

A.6.b. Smoke Detectors

Verify the following:

- Activate smoke detectors as prescribed by manufacturer until the detector alarms.

NOTE:

Identify detector zone or address.

- Alarm sounds at the bridge and may also sound locally.
- Room in room configurations are equipped with audible alarms.

NOTE:

If the ship has a zone system, ensure zone detection is activated. If the ship has an address for each detector, ensure the address is identified upon detector activation.

**A.6.c. Manual
Call Points**

Verify the following:

- Activation of call point after inserting test key.
- Call point number.
- Alarm sounded at wheelhouse.
- Number on the alarm panel matches the call point number and location.

**A.7. Fire Control
Plan**

Purpose is to verify that the fire control plan is adequate and consistent with the equipment aboard and is updated as the ship ages or is modified.

Spot check the following:

- Placement of equipment on the plan matches placement on the vessel. Identify any areas that might require additional equipment placement. (list is not all inclusive).
 - Fire alarms (manual and automatic).
 - Fire stations, fire hydrants, and hoses.
 - Fire extinguishers.
 - Sprinkler stations, section valves.
 - Fire dampers and damper control stations.
 - Emergency escape breathing devices (EEBD).
- Signage reflects the correct equipment and position on the vessel.
- Plans are posted at embarkation areas, crew accommodations, wheelhouse and engine control room (ECR).

**A.8. Portable
Fire
Extinguishers**

Verify the following:

- Ready for use in conspicuous places.
 - Located per fire control plan.
 - Fully charged.
 - Spare charges provided for first ten extinguishers and 50 percent of the remaining fire extinguishers aboard that are capable of being recharged.
 - Proper bracket mounted.
-

**A.9. Fire
Hydrants**

Verify the following:

- Immediate pressure by opening an upper hydrant.
- Markings for fire hydrants.
- Fire stations are equipped with:
 - Fire hose in good condition attached to hydrant on interior stations.
 - Spanner wrench (optional unless hose fitting requires it).
 - Hydrant isolation valve.
 - Dual purpose nozzle with necessary couplings, (spray/jet type) incorporating a shutoff.

NOTE:

Per Chapter II-2 of reference (c), each hose is provided with a nozzle and necessary couplings. Fire hoses, together with any necessary fittings and tools, are kept ready for use.

Section B: Fixed Fire Extinguishing Systems

B.1. Fixed Gaseous Fire Extinguishing Systems

Purpose of the inspection is to verify extinguishing system equipment installation and markings and also to verify that classification society test reports are available for review. If class society has not yet tested system, examiner has the option to require operational testing using compressed air.

NOTE:

Examine the ship's maintenance plan per Chapter II-2 of reference (c) and company/vessel specific firefighting instruction manual (FIM) for maintenance, testing, and inspections required.

NOTE:

Ensure ventilation is on and operating properly for at least 15 minutes before inspection.

Verify the following:

- Operation of ventilation before entering space.
- Warning placards in place.
- System diagram is in place and accurate at bottle station.
- Current servicing of bottles and hoses.
- Material condition of equipment.
- Bottles are correctly marked, connected, and secured.
- Release procedures are posted and show proper sequence of events to activate system.
- System operating instructions posted.
- Spaces covered are adequately marked and equipped with audible alarms.
- Crew knowledge of system operations.
- All means of egress are clear and adequate lighting is available.

NOTE:

Examiners do not enter the space without a crewmember responsible for system maintenance.

NOTE:

Vessels are checked to ensure all blanks are removed upon leaving the shipyard, but examiners must stay alert for alterations that might adversely affect the vessel's structural fire protection.

NOTE:

Past examinations have revealed instances of improper system installation. Ensure operating handles are properly installed and stop-check valves are properly oriented.

NOTE:

For CO₂ system specific requirements, see Port State Control guidance for examination of fixed CO₂ firefighting systems and conducting fire drills aboard cruise ship during scheduled examinations.

NOTE:

Ensure operating instructions are in English or the official language of the vessel, easily read under existing light conditions, and located near the equipment.

B.1.a. Fixed
Foam System

Verify fixed foam system, if equipped, as follows:

- Foam analysis report present (first report good for 3 years and then must be analyzed every year afterward).
- Procedures present at operating station and crew familiar with them.

B.1.b. Galley
Equipment and
Hood Firefighting
Systems

Purpose is to verify fire detection systems in cooking areas are in place, intact, and operational. Verify the following:

- System markings and instructions.
- Grease traps are installed and clean.
- Placement of fixed fire suppression system for deep fat fryers.

**B.2. Water-
Based Fire
Suppression
System**

Purpose is to demonstrate proper operation of water-based fire suppression system, associated section valves, and system alarms. Ensure administration installation test reports are available for review.

B.2.a. Sprinkler
Pump

Verify the following:

- System is pressurized and a wet type, open drain valve to sprinkler head tank to reduce system pressure.
 - Automatically starts and provides system pressure.
 - Pump operation by the ECR, bridge, or the pressure gauge at the section valve.
 - Cross connect to fire main system is installed.
-

B.2.a.(1). All
Water
Suppression
Systems

Verify the following that impact sprinkler head effectiveness:

- No obstructions to spray patterns.
 - Windows facing embarkation areas are covered with a dedicated sprinkler head per the fire control plan.
 - High density water mist heads are not damaged, are the proper color (based on temperature for its usage in the space protected), and filled with the proper amount of liquid (for expanding and breaking when sensing the temperature threshold for fire).
-

B.2.b. High
Pressure Water
Mist Pumps

Verify the following:

- System pressure prior to starting the exam (is typically 25-30 bars).
- High pressure water mist pump motors (two pumps per motor) start to operate when pressure drops below 10-15 bars. The high pressure water mist pump motors cycle on one at a time until all primary pump motors start.
- Electrician secures breaker inside control panel to any operating pump motor. Standby pump motor automatically starts.

NOTE:

If a vessel has more than one system, the second system is typically in standby mode and starts if the primary system cannot maintain system pressure if there is a failure of any primary pump motors, i.e., if a system has six motors, five start with one in standby.

- Cross connect to fire main system is installed.
 - Pressures on nitrogen stored energy (if equipped).
 - Automatic solenoid is connected on stored energy bottles.
-

B.2.c. Fire Pumps Purpose is to demonstrate crew can properly operate (manual/automatic) fire pumps and verify fire main system is able to provide immediate pressure to all hydrants (as necessary):

- Number (at least three).
- Mechanical seal is not leaking.
- Starts automatically.
- Powered by the emergency switchboard (at least one).

Verify the following:

- Fire main is under pressure prior to exam start (typically 8-10 bars).

NOTE:

Dropping system pressure can be accomplished by opening a fire hydrant on the vessel or opening the anchor wash.

- The “topping off” or head make-up pump automatically starts when system pressure drops to 4 bars. System pressure returns to normal.
- Secure “topping off” pump and ensure standby fire pump starts automatically/provides appropriate system pressure.
- Operation of remaining two fire pumps by manual start and remote location.
- One fire pump is electrically connected to the emergency switchboard. (Secure the emergency fire pump from the switchboard and then power it using the emergency switchboard while testing the emergency generator.)
- No excessive leaks from fire pump while operational

B.2.d. Drencher (if equipped) Purpose is to demonstrate proper operation and coverage of the installed drencher system. The drencher systems are typically installed to protect covered mooring decks on the basis of reference (u) and reference (v).

Verify the following:

- Arrangement of drencher heads. Ensure areas of greater fire risk are covered by drencher heads. Heads are clear of debris.
 - Instructions for use are posted.
 - Fire detection systems (smoke, heat, or fire) are functional.
 - Control valves are marked and easily accessible without going through protected areas.
-

Section C: Structural Fire Protection Elements

C.1. RO Material Approval Certificates

Verify based on the following:

- Materials approved by RO as non-combustible.

NOTE:

The need to verify material approval certificates is only required when there have been changes that affect structural fire protection or involve new outfitting of such items as upholstery, curtains, furniture, and other moveable items.

C.2. Penetrations (pipe wiring)

Verify the following:

- Penetrations properly insulated.
- New material approved by RO.

C.3. Structural Fire Protection (SFP)

C.3.a. Space Categorization

Space is used as currently designated.

- No improper stowage of combustible/flammable materials inside space.

C.3.b. Space Behind the Lining

Verify space behind the lining.

- No improper stowage of combustible/flammable materials inside space.
-

**C.4. Fire Doors
(FDs)**

Verify the following:

- Test group release for FDs or release doors zone by zone. Identify on bridge monitor control panel the identification number of doors.
- Doors are marked with number and for double doors correctly marked “Close this door first” or equipped with an interlock or sequencing bar that prevents overlay when both doors in same opening are closed.
- FDs properly self-close and latch when released, especially when the ventilation systems are operating to ensure there is no effect on FD closure.
- Doors can be released from both sides of the door.
- All hold back hooks must be connected to a central release. Hold back hooks not connected to central control station release are prohibited.
- Door closure rates:
 - Swing type doors - 10 to 40 seconds.

**C.4.a. Sliding
FDs**

Verify the following:

- Sliding FDs equipped with safety bar does not reopen more than 1 meter when activated.
- Alarm sounds for 5 to 10 seconds before closing when FD activated from the remote location.
- Sliding FDs (usually found near open galleys on upper decks) close properly and have not become twisted on their tracks.
- Proper closing of fire screen doors in one main vertical zone activated from continuously controlled central control station. This is typically done during the fire drill.
- Door closure rates:
 - Sliding type doors - 0.1 to 0.2 meters per second.

NOTE:

Door gaskets can be constructed of intumescent materials and expand to fill gaps between the door and the bulkhead.

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Chapter 7: Drills

Introduction This chapter discusses crew responsibilities during emergency drills. It also overviews associated emergency equipment with each survival system.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Alarms and Drills	7-2
B	Passenger Muster	7-9

Section A: Alarms and Drills

A.1. Installed Communications and Alarms

Verify emergency alarms, public address systems, and lifeboat communications.

A.1.a. Emergency Alarms

Verify the following:

- Overrides public address system in all spaces.
- Clearly audible in all spaces of the vessel above ambient noise.
- Connected to emergency source of power.
- Connected to two loops and has two independent amplifiers.

A.1.b. Public Address System

Verify the following:

- Clearly audible in all spaces of the vessel above ambient noise.
- Connected to emergency source of power.
- Connected to two loops and has two independent amplifiers.

A.1.c. Lifeboat Communications

Verify the following:

- Communication clearly established from lifeboat/rescue boats with vessel during the drill.

A.2. GMDSS

Verify the following:

- Certificate is valid and GMDSS compliant for sea area where the ship is operating.
- Radio log maintained (review entries).
- MMSI display on digital selective calling (DSC) radios match ship's document.

A.3. Fire Drill

The purpose is to verify the competency and proficiency of the vessel's firefighting procedures, training plan, and crew per Chapter III of reference (c).

NOTE:

Per reference (w), when witnessing fire drills during each annual/periodic COC examination, it is important to ensure the fire location selected properly evaluates the crew's response to a high consequence fire. As such, during the next cruise ship scheduled exam, the port state control officer (PSCO) selects an engine room for the fire drill location.

NOTE:

Understanding that the fixed CO₂ firefighting system is the last resort for combating an engine room fire, the PSCO escalates the sequence of the scenario to progress from the initial attack by ship's crew to the fire is out of control and activation of the CO₂ system (simulated) is required. As such, the CO₂ (simulated) activation escalates from remote activation failure to manual activation of the CO₂ system.

NOTE:

Once a vessel has completed this initial fire drill of an engine room, other locations can be selected during subsequent PSC exams; however, conduct a fire drill in the engine room at least once during the vessel's COC annual cycle. Record the fire drill location in the remarks section of the COC.

Pre-Drill: Discuss fire drill and abandon ship drill together with ship personnel (can be combined with the initial meeting with the master depending on ship's procedures).

- Coordinate with the master and/or ship's safety officer to determine the best time and location in which to hold the fire drill. Consider locations where the ship is most likely to experience a fire and where most recent fire drills have been held. Try to minimize disruptions to passenger operations while conducting the drill.
- Do not direct the master or the vessel's crew where or how to conduct the drill.
- Use available resources, such as a smoke-generating machine or a live or dummy casualty, to make the drill as realistic as possible.
- Allow the master or the safety officer to describe to the examiner(s) what takes place during the drill so they can know what to expect while witnessing the drill. The examiner needs to be aware of what the vessel's procedures are and what events and procedures are required to take place while the fire drill is ongoing. Emphasize during the pre-drill meeting that the safety of the crew is most important.

- The station bill is consulted to determine the duties and location of other crewmembers.

A.3.a. Decision Support System on the Bridge

Verify the following on the bridge:

- Communications between bridge and emergency teams. Orders are passed down the chain of command and information and reports passed up smoothly.
- General alarm is audible (if drill procedure is to sound it).
- Fire control plans available and used.
- Log being kept.
- Emergency/test messages sent/simulated.
- Presence of an assigned GMDSS operator (with no other duties).

NOTE:

The examiner verifies the drill follows the emergency response plan contained within the Decision Support System per Chapter III of reference (c). The crew quickly locates, identifies, and explains the plan. Give special attention to the actions of the master and his or her ability to maintain control of the emergency situation and to direct the different aspects of the emergency response.

A.3.b. On Scene

Verify the following:

- Witness crew initiate drill.
- Vessel's fire alarm/general alarm is sounded and is audible in drill locations.
- Witness the closing of fire screen doors by the bridge team or the fire party to contain the fire.
- Adequate communications are established between control stations and the fire team.
- Firefighter's outfits are properly donned and include proper gear (see [Chapter 6, Section A: General](#) for more details).
- Crew uses firefighting methods to attack the simulated fire per the vessel's procedures.
- All crewmembers are able to effectively communicate with each other.

NOTE:

To prevent confusion and keep the flow of the drill process, do not debrief local elements of the drill (i.e., fire teams and scene leaders) locally. Examiners debrief master and other designated staff upon the completion of the drill.

A.3.c. Staging Area

Verify the following:

- Proper command and control.
- Location is safe.

A.3.d. Medical Team

Verify the following (if the ship has procedures regarding use of medical teams during fire drills):

- Staged and ready to deploy.
- Necessary equipment available.
- Team uses the appropriate route of egress.

A.3.e. Boundary Cooling Team

Verify the following:

- All surrounding spaces (all six sides surrounding space with fire) are protected/verified per vessel's procedures.
- Crew followed the vessel's procedure with evacuating cabins if the fire was located in such an area where cabins could be in danger.

A.4. Abandon Ship Drill

The purpose is to verify the competency and proficiency of the vessel's firefighting procedures, training plan, and crew per Chapter III of reference (c).

NOTE:

While verifying the following procedures, verify crewmember's ability to communicate and direct passengers to muster stations, maintain traffic control, and evacuate cabins.

- Coordinate examination team to ensure that all areas of the abandon ship/lifeboat lowering operation are witnessed.
- General alarm is audible, if drill procedure is to sound it.
- All crewmembers muster at appropriate abandon ship stations. The station bill is consulted to determine the duties and location of other crewmembers.
- All crewmembers are properly dressed (lifejackets/stairway guide identifiers) for the drill per the vessel's procedures.

- Exempted crewmembers were accounted for as missing during the mustering process.
- Witness the crew start lifeboat engines for lifeboats on the inboard side. (both inboard and outboard boats must demonstrate ability to provide both forward and astern way).

NOTE:

Per Chapter III of reference (c), all lifeboats, including those with water-cooled engines, are required to be run weekly for 3 minutes to ensure proper operation of propulsion engine.

- Full hard over rudder movement for inboard boats.

A.4.a. Decision
Support System
Passenger
Assistance

Verify stairwell guide and muster station leader knowledge:

- Spot check stairway guides' knowledge, familiarity of duties, and passenger interaction through question and answer (ask for copies of the safety familiarization questions provided to the crew).
- Spot check muster station personnel for knowledge and familiarity of duties through question and answer (use vessel safety sheets if available).
- Crewmembers assigned to assist passengers are able to communicate at least enough information to direct a passenger to the proper muster area.

A.4.b. Lifeboat
Lowering and
Operation

Verify the following:

- Assess abandon ship drill portion including crew's performance, ability to effectively communicate, and knowledge.
- Lowering of all outboard lifeboats from embarkation deck level to the water.
- Witness release of all outboard lifeboats.
- Witness crew's ability to maneuver lifeboats in the water, both ahead and astern.

A.4.c. Liferaft
Inflation and
Crew Training

Verify the following:

- Launching of davit-launched liferaft.

NOTE:

Do not accept a training liferaft unless it is substantially the same size and type liferaft used for primary lifesaving (per reference [b]).

- Liferaft crew can effectively and safely launch all the primary liferafts serviced on one davit in 30 minutes by extrapolating the time it takes to launch one liferaft (i.e., if there are six liferafts serviced on one davit, then the time to launch one liferaft and lower it to the water is 5 minutes).
 - Once lifeboats have been stowed, assess the drill including operation of the launching appliance, crew's performance, and ability to effectively communicate.
 - That all elements of an abandon ship drill as described in Chapter III of reference (c) are met.
-

A.4.d. Launch
and Recovery of
Rescue Boat

Verify the following:

- Crew proficient in launching.
 - Recovery time not more than 5 minutes in moderate sea conditions.
 - Ability to lower lifeboat using the self-lowering device, when fitted.
-

**A.5. Survival
Craft Launching
and Recovery
Arrangements**

A.5.a. Davit-
Launched
Lifeboats and
Liferafts

Verify the following:

- Structure and foundation of davit is sound.
 - Roller tracks lubricated and not wasted.
 - Wire renewal dates are not more than 5 years.
 - No obstructions to lowering.
 - Limit switches are present and function as designed.
 - Launching instructions are present.
 - Lifeboat hook approvals and fall prevention devices installed.
-

A.5.b. Descent
Devices Relative
to Embarkation
Ladders

Verify the following:

- Descent devices (if equipped) are in good condition and readily accessible with dedicated mounting points located near the device.
- Sufficient length.
- Descent unit and harness in good condition.
- Descent units checked by RO.
- Embarkation emergency lighting.
- At least one embarkation ladder is located on each side of the ship.

A.5.c.
Embarkation
Ladders

Verify the following:

- Ladders equipped with secure handholds.
- Embarkation ladders are in good condition and secured to the deck.
- Material condition of deck padeyes.
- Is a single length, from the deck to the waterline in the lightest seagoing condition under unfavorable conditions of trim of up to 10° and a list of up to 20° either way.

A.6. Post Drill

Verify the following:

- That all elements of a fire drill and abandon ship drills per reference (c) are met.

NOTE:

Conclude drill and debrief master and crew to include the examination team observations on areas to improve or address.

Section B: Passenger Muster

B.1. Introduction Examiners witness a muster of passengers per Chapter III of reference (c) as part of each annual and periodic exam. In those rare situations where an exam is scheduled but passengers have not embarked in your port, a passenger muster is not required (per reference [x]).

B.2. Crew Competency

At the muster, verify crew competency as evidenced by:

- Ability to direct passengers to muster stations.
 - Instructions provided to passengers on the use of lifejackets.
 - Actions to take in an emergency situation.
 - Actions taken by corridor and stairway monitors.
-

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Chapter 8: Walkthrough - General

Introduction

This chapter discusses the general walkthrough requirements as they pertain to escape and signage, space requirements, and the International Labor Organization (ILO).

In This Chapter

This chapter contains the following sections:

Section	Title	Page
A	Walkthrough – Means of Escape and Signage	8-2
B	Walkthrough – Space Requirements	8-5
C	Walkthrough – International Labor Organization (ILO)	8-9

Section A: Walkthrough – Means of Escape and Signage

A.1. Means of Escape/Escape Signage/Low Location Lighting

Purpose is to verify escape routes and means of escape (stairs, corridors, doors, and openings) throughout the vessel and relevant escape signage (EXIT, EMERGENCY EXIT, ESCAPE, etc). Guidelines for evacuation routes per Chapter II-2 of references (c) and (y).

A.1.a. Escape Signage

Verify the following:

- Emergency exits properly marked.
- Signage is correct, adequate, and per the escape plan.

A.1.b. Impact of Furnishings in Escape Routes

Verify the following:

- No obstructions along escape routes (stairs, corridors, doors, and openings).
- Free of storage.

A.1.c. Escape Trunks

Verify the following:

- All spaces or groups of spaces have two means of escape and there are no dead end corridors greater than 7 meters.
- Doors are operational to escape trunks.
- Able to open and unlock from the inside.

A.1.d. Stairways and Stairway Landings

Verify the following:

- Direct access only from toilets, information counters, and lockers with non-combustible materials.
- Stair towers correctly enclosed by appropriate fire doors.

A.1.e. Evacuation Routes

Verify the following:

- Enclosed protected access to embarkation deck.
 - Air handling space, offices, workshops, and storerooms for escape compliance.
-

**A.2. Muster/
Assembly
Stations**

Per Chapter III of reference (c), muster/assembly stations shall be in the vicinity of, and permit ready access for the passengers to, the embarkation stations unless in the same location.

Verify the following at each muster station:

- Is designated and assigned.
- Has adequate lighting (normal and emergency conditions).
- Is marked with appropriate IMO symbols at each entrance.
- Has proper location of exits towards lifeboats/liferafts (indoor spaces only).
- General alarm is audible (typically verified during drill).
- Donning lifejacket instructions are posted.
- No obstructions that would reduce the available space for actual mustering.
- Muster station leader is assigned.
- Muster station second in command is assigned.
- Crew knows which lifeboats to escort passengers to.
- Muster lists and emergency instructions.
 - Available for each person.
 - Posted in conspicuous places.
 - Written in a language crew understands.
 - Lists crew member duties.

**A.3. Room-in-
Room
Construction**

Verify the following per reference (z):

- Public address (PA) system or window.
- Window not blocked.
- Proper space categorization.

A.4. EEBDs

Verify the following:

- Placement of EEBDs.
 - Status indicators display is green.
-

**A.5. Low
Location
Lighting**

Guidelines for evaluating low location lighting (LLL) per reference (aa).

Verify the following:

NOTE:

Ask for the LLL to be illuminated before beginning deck walk.

- LLL is properly placed and arranged per approved plan and regulation requirements.
- Leads to escape route.
- Leads to door handle in way of escape route.
- Located on both sides of corridors greater than 2 meters wide.

**A.6. Adequacy of
Photoluminescent
Tape**

Verify the following:

- Photoluminescent strips 300 millimeters from deck.
 - Photoluminescent tape has been tested within 5 years.
-

Section B: Walkthrough – Space Requirements

NOTE:

During walkthrough, examine working areas where the crew congregates for smoking breaks (such as the mooring decks) for fire hazards including oils, oily rags, and combustibles.

B.1. Mooring Deck Equipment

The purpose is to ensure the mooring deck complies with security and safety regulations.

Verify the following:

- Anchor and windlass.
 - Foundations.
 - Covering for moving parts.
 - Guards.
- Mooring lines are intact.
- Drencher system is in good condition if installed (see [Chapter 6, Section B.2.d: Drencher](#) for test procedures).
- Watertight and weather tight openings to include:
 - Gaskets and dogs.
 - Other openings (means of securing).
 - Vents, air pipes, and closing appliances.

B.2. Laundry Room

Purpose is to ensure this area is protected and safe from fire hazards and the crew understands the elevated fire risk of this space.

Verify the following:

- Ventilation system and ducts are clean and clear of potential fire hazards.
- Smoke detectors, sprinkler or water mist heads, and fire extinguishers are present.
- No stowage behind machinery where there could be fire hazards.
- Egress paths are clear and maintained.

- Adequate cleaning and maintenance program in place for ventilation and lint traps per reference (bb).
-

B.3. Dining Rooms

Purpose is to ensure access to means of escape and placement/operation of emergency/fire equipment.

Verify the following:

- Signage to escape is clearly indicated.
 - Means of egress is clear of obstructions.
 - Public address system and general alarm is audible or overrides all other sound systems.
-

B.4. Saunas

Verify the following:

- Combustible material is stowed at least 500 millimeters or protected from hot surface.
 - Sauna door opens outward.
 - Electrically heated ovens are provided with a timer.
 - Timer operates properly.
-

B.5. Cabins and Balconies

Verify the following:

- Escape instructions are marked on back of door and oriented in a clear and non-confusing way.
 - Lifejacket symbols (if lifejackets kept in cabins) are clearly visible and lifejackets are stowed in same location.
 - Check a random sampling of smoke detectors.
 - Balconies are fitted with fire detection and fire suppression systems if they contain combustible furniture.
 - Verify balcony partitions are constructed of a non-combustible material.
 - If furniture is non-combustible, see approval certificate if in question.
 - Balcony partitions can be opened or removed in emergencies.
 - Public address system is audible from cabin and ambient noise is eliminated upon activation of the PA system.
 - Peep holes, time sensitive latches, and security guide per reference (k).
 - Access to embassy hotline numbers.
-

B.6. Theater Areas

Verify the following:

- Escape routes are clearly marked.
 - Egress is not blocked.
 - Public address system is audible from space and ambient noise is eliminated upon activation of the PA system.
-

B.7. Backstage Areas

Verify the following:

- No obstructions to means of escape.
- All materials including low flame spread curtains and drapes are approved (if in question).
- Adequate emergency lighting.
- Proper stowage of fireworks and pyrotechnics per flag state approval.
- Stowage of flammable material unless properly stowed in a fire locker for daily use.

NOTE:

The definition of “daily use” when considering flammable items stowed in a flammable locker, but not in a category 14 space, cannot be found in reference (c). USCG defines it as an amount as prescribed in the ship’s SMS. Ultimately, the RO can accept it or ask to re-evaluate the quantity.

- No stowage of combustibles unless stowed in a designated space with proper categorization.
 - No dangerous electrical connections.
-

B.8. Galley

Verify the following:

- No improper stowage combustible/flammable materials stowed inside space.
 - Protected by an appropriate fire extinguishing arrangement.
 - No improper room-in-room arrangements.
 - If no audible alarm in space, verify glass is not obstructed.
 - PA system operational and audible inside the galley (if delivery system is located outside the galley, ensure it is audible inside the galley space).
-

B.9. Photo Lab

Verify for the following:

- No improper stowage of combustible/flammable materials inside space.
-

B.10. Garbage Room

Verify the following:

- No improper stowage of combustible/flammable materials inside space.
 - Trash cans that are combustible are used for sorting, not for storage, unless used for non-combustible materials and properly marked.
 - Protected by an appropriate fire extinguishing arrangement.
-

B.11. Paint Lockers

Verify the following:

- Protected by an appropriate fire extinguishing arrangement.
 - Electrical installations are explosion proof.
 - Proper ventilation is present.
 - Contents of locker are properly secured.
 - Proper space categorization.
-

B.12. Air Conditioning and Ventilation Spaces

Verify the following:

- Unblocked means of escape with proper escape signage.
- No improper stowage of combustible/flammable materials inside space.

NOTE:

Air conditioning and ventilation spaces are not required to be protected by a fixed suppression system.

- Machinery operating properly (no unusual noises or vibrations).
 - Space is not excessively damp or odorous.
-

Section C: Walkthrough – International Labor Organization (ILO)

C.1. ILO-147 Purpose is to verify that crew accommodation and the arrangement of the hospital are in compliance with relevant requirements of reference (cc).

C.1.a. Crew
Accommodation
Spaces

Verify the following:

- Spaces are adequate and cabins are not overcrowded.
- Crew messing is clean and free of vermin.
- Crew berthing area does not have any fire hazards or improper electrical connections.

C.1.b.
Hospital Spaces

Verify the following:

- Meets the same standards as a crew accommodation space.
 - Hospital spaces are adequate and not used for storage.
 - Means to secure controlled drugs are in place and drugs are kept in locked safe.
 - Space not used for berthing.
 - Crew is knowledgeable regarding medical waste procedures.
 - Space has proper egress to escape and signage.
-

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Chapter 9: Environmental

Introduction This chapter discusses how to verify that a vessel is operating per applicable environmental rules and conventions.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Waste Streams	9-2
B	Vessel General Permit	9-6
C	Ballast and Bilge Systems	9-7

Section A: Waste Streams

A.1. Waste Streams

Purpose is to verify the vessel is operating per its waste management procedures. The examiner verifies at least one waste stream per exam and does not inform the vessel ahead of time which waste stream he or she will verify per reference (d).

A.1.a. Oil Pollution Prevention Systems

Verify the following:

- OWS and oily content meter (OCM)/bilge alarm has been approved by the Coast Guard or appropriate administration meeting per reference (dd).

NOTE:

If not approved under reference (dd), then the system components must have a Coast Guard approval certificate.

- Operating instructions and International Convention for the Prevention of Pollution from Ships (MARPOL) placards are posted.
- Piping diagram accurately reflects piping system (to include any modifications made).
- Oil record book has accurate entries.
- All oil to sea interfaces have no signs of leaking seals.

A.1.a.(1). Bunker Stations

Verify the following:

- The size of oil containment enclosure/associated drains and where drains in the bunker stations drain to sludge tank or similar design.
 - Oil pollution placards, oil transfer procedures, and system line diagrams are posted.
 - Person-in-charge designation is assigned.
 - Transfer hoses have been hydrostatically tested per reference (ee).
 - Bunker station markings.
 - Bunker station lighting (normal and emergency).
 - Standard discharge connections are in place.
 - Proper operation of remote shut down of oil transfer pumps.
-

A.1.b. OCM Tests Units meeting reference (dd) requirements:

- Verify OCM has current calibration certificate and tamper seals.
- Reference (dd) requires a seal on the infrared sensing unit, allowing the crew to only check instrument drift, repeatability, and the ability to re-zero the unit. No further testing is required. (Use reference [gg] as guidance).

Units not meeting reference (dd) requirements:

- Witness operational tests and verify 15-ppm alarms and automatic shutdown.
- Verify tests are conducted per manufacturer's test procedures.

NOTE:

Never test the OCM using sticks, tea, coffee, or similar unorthodox methods. Use reference (gg) as guidance.

A.1.c. Grey Water Grey water includes discharges from galley, sinks, washbasin drains, showers, and baths. It does not include drains and sinks from medical spaces.

Verify the following:

- If grey water is directed to marine sanitation devices (MSD) systems, ensure that combined grey water/black water throughput does not exceed the throughput of the MSD systems.
- Treatment method.
- Testing and disposal records.

NOTE:

If there is evidence of hazardous waste disposed through grey water, treat it as hazardous waste stream and follow vessel documentation on proper disposal.

NOTE:

Verify ballast system can be isolated from overboard discharge if ballast tanks are used to hold grey water in port.

A.1.d. Black
Water

Black water includes MSDs and other systems to treat, store, and discharge sewage.

Verify the following:

- MSD is properly installed.
- MSD approved for use on this particular vessel (USCG Certificate of Approval or holds a valid International Sewage Pollution Prevention Certificate (ISPPC) issued by its flag administration indicating the installed sewage system complies with MARPOL Annex IV as amended by either resolution MEPC.159(55) or MEPC.2(VI)) per reference (hh).
- Adequate capacity or throughput for the number of persons allowed on board.
- Operating instructions are posted.
- Drains from hospital space and dedicated washer drain to black water tank.
- Treatment method.
- Testing and disposal records.

A.1.e. Hazardous
Waste

Hazardous waste includes dry cleaning (containing perchloroethylene, commonly called “PERC”) waste, used paints, and thinners that contain hazardous substances, silver-bearing photo-processing waste, cleaning solutions, and other items that contain hazardous substances.

Verify the following:

- Designated storage areas for hazardous wastes.
 - Spill control and decontamination equipment is readily available.
 - Vessel has been assigned Environmental Protection Agency (EPA) identification number.
 - Documentation to verify hazardous waste is properly manifested and disposal is accounted for.
 - How hazardous waste is determined.
 - Hazardous waste is properly packaged and marked.
-

A.1.f. Non-Hazardous Waste

Non-hazardous waste includes shipboard garbage including plastics and synthetic material, medical waste, food waste, and recyclables such as glass, cardboard, aluminum, and metal cans.

Verify the following:

- Shipboard garbage management plan.
 - Garbage record book entries and incineration records.
 - Waste is sorted to prevent hazardous waste from entering non-hazardous waste stream.
 - Means are in place to prevent plastics or synthetics discharge overboard.
 - Per reference (ii), placards are placed in prominent places where crew work and live and in areas where bins are placed for collection of garbage. Placards are placed in prominent places where passengers lodge and congregate, which include cabins and all deck areas for recreational purposes open to passengers.
 - Per reference (jj), non-combustible waste receptacles are used (exceptions for wet food wastes, metal, and glass).
 - Recycling programs are in place and being used.
 - Proper disposal of cooking grease from grease traps.
 - Adequate fire detection and protection in place (heat detectors in cold storage).
-

Section B: Vessel General Permit

NOTE:

The Vessel General Permit (VGP) only applies while in U.S. waters, 3 miles from the baseline.

**B.1. Vessel
General Permit
(VGP)**

Purpose is to ensure compliance with reference (kk).

NOTE:

The vessel must maintain a record of the discharge, estimated volume, and concentration of bromine.

Section C: Ballast and Bilge Systems

C.1. Ballast Water Management (BWM) and Plans

Verify the BWM and plans per reference (II):

- Vessel specific.
- Allows those responsible for the plan's implementation to understand and follow the BWM strategy of the vessel.
- Crew trained on the application of the BWM and sediment management procedures.
- Records for all voyages to U.S. ports or places where the vessel anchored or moored.
- Records retained for 2 years.
- Ballast water report submitted to the National Ballast Information Clearinghouse (NBIC).

C.2. Bilge Pumping System

Purpose is to verify proper operation of emergency bilge suction from remote location (ECR) and/or locally.

C.2.a. Bilge Alarms

Verify the following:

- Activate alarm using a number of indicators throughout the vessel ensuring the visual and audible alarm register on the alarm panel.
- Alarms are recorded in the alarm log printout.
- Operation of remotely operated valves both manually and remotely.

C.2.b. Bilge Pumps

Observe bilge pumps if in operation.

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Chapter 10: Machinery Systems

Introduction This chapter discusses proper operation of main and emergency machinery systems.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Main and Emergency Machinery Systems	10-2

Section A: Main and Emergency Machinery Systems

A.1. Main Propulsion Engines

Verify the following:

- High pressure fuel delivery lines have no leaks and are intact.
- Cooling lines have no leaks and are intact.
- High pressure lines are double jacketed.
- Guards are in place around rotating machinery.
- Lagging is securely in place and not oil soaked.

A.2. Main Ship Service Generators

Verify the following:

- High pressure fuel delivery lines have no leaks and are intact.
- Cooling lines have no leaks and are intact.
- High pressure lines are double jacketed.
- Guards are in place around rotating machinery.
- Lagging is securely in place and not oil soaked.

A.3. Incinerator

Per Annex VI/16, App IV of reference (mm), verify flag administration certification of incinerators installed on or after 1 January 2000, if fitted. Spot check condition of incinerators, if fitted, and witness operation of incinerators, if operating.

A.4. Steering Gear

Purpose is to demonstrate proper operation of all steering gears per Chapter II-1 of reference (c) in both modes of operation (normal and emergency), from all locations. System alarms are to be tested. Vessels equipped with podded propulsion are tested in the same manner.

Verify the following:

- Divers are out of the water and away from underwater machinery.
- Proper operation from all remote operating locations in normal mode. Capable of putting the rudder over from 35° one side to 35° on the other side.
- Proper operation locally in emergency mode. Capable of putting the rudder over from 35° one side to 35° on the other side.
- Time required to put the rudder from -35° to +30° is not greater than 28 seconds on one pump.

NOTE:

It is not necessary to perform a 360° test on any podded system. Test pods the same way a standard rudder is tested.

- Rudder angle indication matches locally and remotely.
- Alarms in ECR and bridge navigation station (electrician may be required to attend the test). Alarms are not simulated (jumpered). Alarms to be tested:
 - Low lube oil - removal of probe from tank if possible.
 - Loss of power - secure power panel.
- Steering gear signs with instructions and a simple schematic for switching between systems are posted and accurate both in steering gear rooms and on bridge.
- Two operational means of communications between the bridge and steering gear room.
- Proper operation of gyro repeater. If repeater is not present, ensure procedures are in place to calibrate gyro repeater prior to mounting.
- Presence of handrails, slip-free surfaces, adequate emergency lighting, etc.
- No excessive hydraulic leaks.
- No unusual motor noise or vibration.

A.5. Emergency Shutdowns

Purpose is to verify the emergency shutdowns of machinery space ventilation (fans and dampers), fuel pumps, oil purifiers (separators), and quick closing valves (bullet) in machinery spaces, locally and from ECR.

CAUTION:

Do not test any emergency shutdowns on any devices that are being used in conjunction with operating equipment to prevent the possibility of damaging any equipment.

A.5.a. Fuel Oil Transfer Pumps

Verify the following:

- Fuel oil transfer pumps are running.
- Ability to secure fuel oil transfer pumps from local control; verify fuel oil transfer pumps are secure.
- Reset fuel oil transfer pumps.
- Ability to secure fuel oil transfer pumps from remote location (ECR/Safety Center); verify fuel oil transfer pumps are secure.

A.5.b.
Machinery Spaces
Ventilation

Verify the following:

- Ventilation system is running in selected spaces.
- Ventilation transferred from remote location (ECR/Safety Center) and fan motors secured.
- Dampers for main engine room casing are secured and fire dampers are closed.
- Fire dampers and control panels are accurately marked with the number of the damper.

A.5.c. Oil
Purifiers

Verify the following:

- Oil purifiers are running at full speed.
- Ability to secure oil purifiers from remote location (ECR/Safety Center); verify oil purifiers are secure.

A.5.d. Quick
Closing Valves

Verify the following:

- Valve closing groups are identified and their location is displayed.
- A group of quick closing valves are selected to test.
- Quick closing valves from master station are secured.
- All quick closing valves in group are closed.
- All quick closing valves in group are marked correctly.

**A.6. Emergency
Lighting**

Verify the following:

- Identified emergency lighting is working during emergency generator test.

**A.7. Emergency
Diesel Generator**

Verify the following:

- Check guards around rotating equipment.
 - Lagging is securely in place and not oil soaked.
 - Adequate lighting around generator and switchboard.
 - Communications between emergency generator room and bridge.
 - Test fuel shut off valve when emergency generator is stopped.
-

**A.8.
Emergency
Generator Test**

Verify the following:

- Test in the automatic mode (typically done by a breaker being opened on main switchboard, the e-generator starts because it senses a loss of power).
- High pressure fuel delivery lines have no leaks.
- Cooling lines do not have any leaks.
- Adequate voltage and frequency.
- Place partial load on generator (steering pump, emergency fire pump, emergency lighting) and run generator 10 minutes under load.

NOTE:

Per reference (b), the partial load test of the emergency diesel generator only happens during annual exams.

- Second means of starting. This can be done in manual operation.
- If equipped, test emergency air compressor. Verify air compressor charges receivers in emergency generator space.

NOTE:

Ship's elevators automatically proceed to a designated deck and lock out upon automatic starting of the emergency generator.

**A.9.
Transitional
Power Systems**

**A.9.a. Battery
Room**

Verify the following:

- Ventilation to space is operational.
 - Batteries are mounted properly and braced.
 - No excessive bubbling from the batteries that would indicate battery discharge.
 - Deck is insulated on top of batteries or batteries raised off deck.
 - Proper PPE for battery testing.
-

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Chapter 11: Vessel Stability and Watertight Integrity

Introduction This chapter discusses a vessel's ability to remain stable and watertight.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Stability and Watertight Integrity	11-2

Section A: Stability and Watertight Integrity

A.1. Stability Systems

Verify the following:

- Procedures are in place for maintaining ship stability.
- Crew is familiar with procedures.

A.2. Counter-Flooding Devices

Purpose is to verify the proper operation and arrangements of counter-flooding measures.

Verify the following:

- Installation does not violate the structural fire protection provisions.

NOTE:

Flooding control devices need to be constructed to the same standard as the boundary they are located in. If a cross flooding door is located in an A60 boundary, then it needs to be constructed of a material that meets A60 rating and those spaces must be substantially tight for proper function. Devices in A-class divisions are substantially tight when closed with respect to the passage of flame and smoke.

- Sounding closures are equipped with counterweights.
- Cross flooding plates are operational in cases of structural openings.
- Active system (valves or other arrangements) operate properly.
- Damage control plans are posted and accurate.

A.3. Flooding Detection System

Verify the following:

- Random number of sensors tested.
 - Alarm acknowledged in ECR or manned watch station.
-

A.4. Watertight and Semi-Watertight Doors (WTD & SWTD)

Purpose is to verify per Chapter II-1 of reference (c) manual opening-closing procedures at door location and from control stations on the bulkhead deck. Test verifies stored energy source is adequate to provide three cycles of operation for the watertight doors (WTD).

Verify the following:

- Number of doors to be spot checked.
- Accurate operation instructions are posted at door and control stations.
- Central control station lists all doors and their status operable from control station. Each door operable from control station is identified by number, location, and status.
- Operate the door in local mode and ensure the following:
 - Door closure rate in no case less than 20 seconds or more than 40 seconds.
 - Moveable sill plate operates freely.
- Audible alarms operate prior to remote door closure from bulkhead deck control station.

NOTE:

If system is hydraulic, secure power to hydraulic pumps to ensure hand pump operates as designed.

- Testing once a week or at the beginning of a voyage.
- Door closes remotely from bridge.
 - All audible alarms operate prior to door closing.
 - Visual alarms (if equipped) operate when door is in motion.
 - With door fully closed, open locally 1 meter, release handle, and verify door closes immediately. Verify audible alarm can be heard when door is moving while in bridge closure mode.
 - Semi-water tight door (SWTD) opens 1 meter, pauses, and recloses automatically upon operation of push back safety device (if equipped).

WARNING:

Be aware of the danger of closing watertight doors. Ensure proper precautions are taken to prevent accidental injury or death.

NOTE:

Conduct thorough inspections during initial annual examinations and where repairs have been made. During annual examinations, spot checks are generally acceptable unless the examiner has reason for closer scrutiny.

Chapter 12: Survival Equipment

Introduction This chapter discusses survival equipment.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Survival Equipment	12-2

Section A: Survival Equipment

A.1. Survival Equipment

Verify survival equipment.

A.1.a. Survival Craft Requirements

International Voyage per reference (nn)

- The administration may permit lifeboat capacity reduction to 75 percent with 25 percent davit-launched liferafts, equally distributed on both sides, to equal 100 percent capacity aboard.
- Additional liferafts accommodate at least 25 percent of the total persons on board (POB) and are served by at least one launching appliance on each side. Or, equivalent approved appliances are being used if they are capable of being used on both sides.
- No more than six liferafts can be marshaled.

Short International Voyage per reference (nn)

- Lifeboats are, as far as practical, equally distributed on both sides of the ship and accommodate at least 30 percent of the total POB. The remaining POB must be accommodated by davit-launched liferafts.
- Additional liferafts accommodate at least 25 percent of the total POB and are served by at least one launching appliance on each side.
- No more than nine liferafts can be marshaled.

Survival Craft Not Fit for Service

Use the following guidance for vessels having survival craft not fit for service per reference (oo):

Temporary Reduction of Total Persons on Board

Per Chapter III of reference (c), lifeboat requirements for a passenger vessel presume the ship has all of its required lifeboats and liferafts available during abandon ship. The USCG does not require any reduction of total persons allowed aboard beyond the lifeboat capacity lost due to damaged or otherwise not fit for service lifeboats or liferafts.

Temporary Addition of Liferafts for Lifeboats

Per Chapter III of reference (c), a vessel with a substandard lifeboat fully or partially offsets a reduction in total persons allowed by adding one or more approved liferafts on the appropriate side of the vessel.

The vessel only does so if it meets the following conditions:

1. The liferaft is capable of davit launch.
2. The vessel provides the appropriate approved launching arrangements for the added liferafts.
3. The aggregate capacity of the remaining non-substandard lifeboats is not less than 75 percent of the reduced total number of persons on board the vessel.

The crew must still demonstrate it can launch all lifesaving appliances within 30 minutes of the abandon ship alarm.

Temporary Substitution of Existing Liferafts for Lifeboats

A vessel with a substandard lifeboat offsets a reduction in total persons allowed by changing the service of one or more of the existing liferafts required by Chapter III of reference (c) on the appropriate side of the vessel.

Temporary Reduction of Total Persons Allowed Due to Substandard Liferafts (that are part of 25 percent requirement)

If a liferaft required under Chapter III of reference (c) is substandard, a reduction of total persons allowed beyond the capacity of the substandard liferaft(s) might be appropriate.

NOTE:

The total lifeboat and liferaft capacity must be at least 125 percent of the total persons allowed.

A.1.b. Lifeboats,
Rescue Boats, and
Liferafts

Verify the following with regard to lifeboat/rescue boats:

- Correct numbers of lifeboats are operable and available per PSSC.
- Structure and hull intact.
- Lifeboat/rescue boat equipment (see [Chapter 12, Section A.1.c. Lifeboat Equipment](#) for more details).
- Lifeboat skates or fenders are in place.
- Lifeboat/rescue boats are marked per reference (nn).
 - Number of persons for which the lifeboat is approved is clearly marked in clear permanent characters.
 - Name and port of registry of the ship to which the lifeboat belongs is marked on each side of the lifeboat's bow in block capitals of the Roman alphabet.
 - Means of identifying the ship to which the lifeboat belongs and the number of the lifeboat is marked in such a way that they are visible from above.

- Maintenance per established vessel SMS procedures and per Chapter III of reference (c).
- Material condition of release gear.
- Launching/inflating placards are present and easily seen under emergency lighting conditions.

Verify the following with regard to liferafts:

- Structural integrity of the container.
- Stowage, container markings, and arrangements for securing liferafts to vessel.
- Launching/inflating placards are present and easily seen under emergency lighting conditions.
- Spot check liferaft identification tubes for servicing records.
- Float-free raft installations are properly stowed away from overhead obstructions.
- Hydrostatic release is not expired and is properly connected to the liferaft.

A.1.c. Lifeboat
Equipment

Verify the following equipment is available and in the quantities shown (spot check where more appropriate) and in compliance with reference (nn):

- Sufficient buoyant oars, tholepins, crutches, or equivalent arrangements.
- Two boat hooks.
- Buoyant bailer and two buckets.
- Survival manual.
- Illuminated compass.
- Sea anchor.
- Two efficient painters.
- Two hatchets.
- Three liters of fresh water per person lifeboat is permitted to accommodate.
- Watertight receptacles containing 3 liters of fresh water for each person the lifeboat is permitted to accommodate, of which either 1 liter per person can be replaced by a desalting apparatus capable of producing an equal amount of fresh water in 2 days, or 2 liters per person can be replaced by a manually powered reverse osmosis desalinators capable of producing an equal amount of fresh water in 2 days.

- Rustproof dipper with lanyard.
 - Rustproof graduated drinking vessel.
 - Food rations totaling not less than 10,000 kilojoule (kJ) for each person the lifeboat is permitted to accommodate; in airtight packaging and stowed in a watertight container.
 - Four rocket parachute flares, six hand flares, and two buoyant smoke signals.
 - One waterproof electric torch suitable for Morse signaling with one spare set of batteries and one spare bulb in a waterproof container.
 - One daylight signaling mirror with instructions for signaling to ships and aircraft.
 - One copy of the lifesaving signals on a waterproof card or waterproof container.
 - One whistle or equivalent sound signal.
 - First-aid outfit in a waterproof container.
 - Anti-seasickness medicine sufficient for at least 48 hours and one seasickness bag for each person.
 - Jackknife to be kept attached to the boat by a lanyard.
 - Three tin openers.
 - Two buoyant rescue quoits, attached to not less than 30 meters of buoyant line.
 - If not automatically self-bailing, a manual pump suitable for effective bailing.
 - One set of fishing tackle.
 - Sufficient tools for minor adjustments to the engine and its accessories.
 - Portable fire-extinguishing equipment of an approved type suitable for extinguishing oil fires.
 - Searchlight with horizontal and vertical sector of at least six and measured luminous intensity of 2500 candle power which can work continuously for not less than 3 hours.
 - An efficient radar reflector, unless a survival craft radar transponder is stowed in the lifeboat.
 - Thermal protective aids sufficient for 10 percent of the number of persons the lifeboat is permitted to accommodate or two, whichever is greatest.
-

A.1.d. Fast
Rescue Boat

Verify for the following:

- Proof of crew STCW training.
-

A.1.e. Marine
Evacuation
Systems (MES)

Verify the following with regard to a marine evacuation systems (MES):

- Is deployable by one person.
- Container is in good condition.
- Has proper container markings.
- Launching instructions present and can be seen under emergency lighting.
- Crews show proficiency exercising the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system.

NOTE:

The Coast Guard is not required by reference (c) to witness the MES deployment after the initial exam. If invited by the company, USCG PSCOs are encouraged to take the opportunity to witness the deployment.

A.2. Lifejackets

Check random sample of lifejackets (adult, children, and infant) verifying the following:

- Condition.
 - Stowage.
 - Retro-reflective material.
 - Lights.
 - Whistles.
 - PSSC identifies proper number for adults (2.5 percent extra), children (10 percent or more), and watchstanders (sufficient number for members on watch).
-

A.2.a. Infant
Lifejackets

Verify the availability of sufficient number of infant lifejackets:

- How vessel determines how many infant lifejackets are required for each voyage.
 - 2.5 percent or more for voyages less than 24 hours.
 - 100 percent for voyages greater than 24 hours.
-

A.2.b. Oversized Lifejackets Verify the availability of sufficient number of oversized lifejackets:

- How vessel determines what is a sufficient amount of oversized lifejackets or lifejacket extenders aboard.
- Vessel has sufficient oversized lifejackets, OR
- Vessel has sufficient number of extender straps.

A.2.c. Stowage of Lifejackets Verify the following:

- Stowed in containers/compartments clearly marked with type and amount of lifejackets.
- Stow in escape routes or passenger muster stations.
- Additional lifejackets equal to the largest highest personnel capacity of main vertical zone.

A.3. Life Rings, Immersion Suits, Thermal Protective Devices

Verify the following with regard to personal lifesaving appliances:

- Verify lifebuoys are arranged and distributed per Chapter III of reference (c).
 - Condition (reflective tape/delamination/grab lines/lights functional).
 - Proper number with waterlights for 50 percent.
 - Vessel name and port of registry clearly marked.
- Two lifebuoys equipped with smoke canister on bridge wing and that both are equipped with a quick release from the vessel.
- Sample immersion suits or thermal protective aids to verify compliance with reference (nn) (if required to carry aboard per Chapter III of reference [c]).
 - Quantity and arrangement per Chapter III of reference (c).
- Verify personal lifesaving appliances are correctly marked with prescribed IMO symbols.

A.4. Tender Safety Systems

Verify the following with regard to tenders:

- If lifeboats used as tenders are listed as being in full compliance with references (c) and (nn) requirements on the Record of Equipment for the PSSC, this satisfies the requirements for individual lifeboats to hold a PSSC. Additionally during annual exams, units are not required to issue a COC to such lifeboats when these lifeboats are listed on the

Record of Equipment for the vessels PSSC. Where tenders maintained aboard the vessel are not lifeboats and are issued a PSSC or Lifeboat/Tender Safety Equipment Certificate, units issue a COC to each such tender after satisfactory examination.

NOTE:

While there is existing policy in place for the use of reference (c) approved lifeboats for use as tenders, there is not specific policy for small boats (inflatable/“zodiac”) conducting tender operations. The existing USCG policy to allow for tender operations with reference (c) lifeboats is based on the inherent level of safety provided by reference (nn) requirements that a lifeboat must meet with regard to stability, navigation, safety equipment, etc. Contact CSNCOE for guidance if using inflatables as tenders.

NOTE:

FPVEs need to be aware if a vessel intends to operate tenders in U.S. waters; additional equipment is required to be aboard as designated by the RO. The list of additional equipment can be found on the tender safety certificate.

- Personnel that operate lifeboats as tenders hold qualifications equivalent to a licensed operator. For example, per reference (pp), a licensed master or deck officer can serve as a tender operator. A lifeboat operator can operate a tender after completing a training course developed by the company that covers competencies in coastal navigation and International Regulations for Preventing Collisions at Sea (COLREGs), provided the administration has reviewed and accepted the training course. In the latter case, the ship must maintain records that indicate lifeboat operators are trained in accordance with the administration accepted course.
 - The examiner can ask for a copy of the accepted training program and/or a copy of the flag administration’s acceptance letter for the training program.
-

Chapter 13: Post Examination

Introduction This chapter discusses post examination procedures.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Post Examination	13-2

Section A: Post Examination

A.1. Introduction

Purpose is to debrief the master and the crew about the exam and professionally issue deficiencies if needed. Also, examiners thoroughly finish all the paperwork and data-entry requirements.

A.2. Conduct Post Exam Meeting With The Master

- Discuss findings.
 - Complete the following:
 - USCG Port State Control Report of Inspection, CG5437A (Form A)
 - USCG Port State Control Report of Inspection, CG5437B (Form B)
 - Issue a COC to ship and lifeboat tenders (if needed) if ship is in compliance.
 - Follow the procedures for accepting equivalent levels of safety when a ship is issued a deficiency to be cleared prior to departure.
 - Proposal by ship.
 - Approval of the ship's proposal by the flag state administration or the RO acting on behalf of the administration.
 - Acceptance by OCMI/COTP.
 - Communicate with other USCG units when:
 - Vessel cannot operate as designed.
 - There could be COTP requirements for safety while navigating in port waterways.
 - Required items could not be completed during exam (i.e., launching of lifeboats).
 - Outstanding deficiencies need to be cleared within a certain timeframe.
-

A.3. Data Entry

- Consult the [Marine Information for Safety and Law Enforcement \(MISLE\) User Guide Handbook](#).

In the narrative include: Drill observations and locations, scope of exam, type of waste stream verified, side of ship lifeboats launched, deployment of liferaft, and highlight of major deficiencies.

- Add special notes for unusual circumstances, such as ship modifications or other design features affecting vital systems or maneuvering characteristics.
- Scan COC for vessel and for lifeboats serving as tenders.
- Update all certificate dates.
- Check all items in “inspection results” section and record deficiencies.

If an owner or operator of a vessel does not agree with a Coast Guard decision resulting from plan review or from examination, a formal appeal of that decision can be made per the procedures contained in reference (qq).

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Appendix A: Acronyms

AIS	Automatic Identification System.
ARPA	Automatic radar plotting aid.
ASP	Application service provider.
BWM	Ballast water management.
CBP	Customs and Border Protection.
COC	Certificate of Compliance.
COLREGs	International Regulations for Preventing Collisions at Sea.
COTP	Captain of the port.
CSNCOE	Cruise Ship National Center of Expertise.
CSR	Continuous Synopsis Record.
CVSSA	Cruise Vessel Security and Safety Act.
DOC	Document of Compliance.
DSC	Digital selective calling.
ECDIS	Electronic Chart Display and Information System.
ECR	Engine control room.
EEBDs	Emergency escape breathing devices.

EIAPP	Engine IAPP.
EPA	Environmental Protection Agency.
EPIRB	Emergency Position Indicating Radio Beacon.
ETA	Estimated time of arrival.
FD	Fire door.
FIM	Firefighting instruction manual.
FPV	Foreign passenger vessel.
FPVE	Foreign passenger vessel exams/examiners.
GMDSS	Global Maritime Distress and Safety System.
IAPP	International Air Pollution Prevention Certificate.
ICVE	Initial Control Verification Exam.
IEE	International Energy Efficiency Certificate.
ILO	International Labor Organization.
IMO	International Maritime Organization.
INMARSAT	International Maritime Satellite.
IOPP	International Oil Pollution Prevention Certificate.
ISM	International Safety Management Code.
ISPPC	International Sewage Pollution Prevention Certificate.
ISPS	International Ship and Port Facility Security Code.

ISSC	International Ship Security Certificate.
ITC	International Tonnage Certificate.
kJ	Kilojoule.
LLL	Low location lighting.
LRIT	Long range identification and tracking.
MARPOL	International Convention for the Prevention of Pollution from Ships.
MARSEC	Maritime Security.
MES	Marine evacuation systems.
MISLE	Marine Information for Safety and Law Enforcement.
MMSI	Maritime Mobile Service Identity.
MSC	Marine Safety Center (USCG).
MSD	Marine sanitation devices.
MTSA	Maritime Transportation Security Act.
NAVTEX	Navigational Telex.
NBIC	National Ballast Information Clearinghouse.
NTVRP	Non-tank vessel response plan.
OCM	Oily content meter.
OCMI	Officer in charge, marine inspections.
OWS	Oily water separator.

PA	Public address.
PERC	Perchloroethylene.
POB	Persons on board.
PPE	Personnel protection equipment.
PSC	Port State Control.
PSCO	Port state control officer.
PSSC	Passenger Ship Safety Certificate.
RO	Recognized organization.
RO-RO	Roll-on/roll-off (vessel).
SAR	Search and rescue.
SART	Search and rescue transponder.
SEEMP	Shipboard Energy Efficiency Management Plan.
SFP	Structural fire protection.
SMC	Safety Management Certificate.
SMS	Safety Management System.
SOLAS	International Convention for the Safety of Life at Sea.
SOPEP	Shipboard oil pollution emergency plan.
SSO	Ship security officer.
STCW	International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers.

SWTD Semi-watertight doors.

TTP Tactics, techniques, and procedures.

USPHS U.S. Public Health Service.

VDR Voyage data recorder.

VGP Vessel General Permit.

WTD Watertight door.

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