U.S. Department of Homeland Security

United States Coast Guard

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

U.S. Coast Guard
Force Readiness Command
(FORCECOM)

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

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COAST GUARD TACTICS, TECHNIQUES, AND PROCEDURES, CGTTP 3-72.2C

Subj: FOREIGN PASSENGER VESSEL EXAMINERS (FPVE) TACTICS, TECHNIQUES, AND PROCEDURES (TTP)

Ref:
(a) Development System and Standards Tactics, Techniques, and Procedures (TTP), CGTTP 1-01 (series)
(b) USCG Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M16000.7 (series)
(c) Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08
(d) 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)
(e) U.S. Coast Guard Foreign Passenger Vessel Examiner (FPVE) Port State Control Officer Performance and Qualification Standard, MPS-PQS-TCY-FPVE
(f) International Convention of Standards of Training, Certification on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Including 2010 Manila Amendments, STCW Convention and STCW Code, 2011 Edition
(g) The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78)
(h) Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04
(i) Foreign Passenger Vessel Periodic Certificate of Compliance Process Guide, MPS-FM-CSNOE-07 (series)
(j) Load Line Certificate and International Convention on Load Lines, 1966 and Protocol of 1988, as amended in 2003 (2005 Consolidated Edition)
(k) Revised List of Certificates and Documents Required to be Carried on Board Ships, International Maritime Organization (IMO), MSC.1/Circ. 1409
(l) 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

(m) Navigation and Navigable Waters, 33 Code of Regulations (CFR)

(n) Navigation Safety Equipment Testing Required for Cruise Ships, COMDT (G-MOC) Policy Letter 02-05

(o) International Code for Fire Safety Systems (FSS Code), 2007

(p) Cruise Vessel Security and Safety Act (CVSSA) of 2010

(q) International Ship and Port Facility Security (ISPS) Code, International Maritime Organization (IMO)

(r) Cruise Vessel Security and Safety Act (CVSSA) of 2010 Implementation Procedures, COMDT (CG-543) Policy Letter 11-09

(s) Cruise Vessel Security and Safety Act (CVSSA) of 2010; Implementation of Training Standards and Curricula, COMDT (CG-543) Policy Letter 11-10

(t) Maritime Transportation Security Act of 2002

(u) Coast Guard Port State Control Targeting and Examination Policy For Vessel Security and Safety, Navigation and Vessel Inspection Circular (NVIC) 06-03, Change 2

(v) Adoption of the International Code for Fire Safety Systems (FSS Code), Annex 6, Resolution MSC 98(73) (as amended)

(w) Adoption of the International Code for Fire Safety Systems (FSS Code), Annex 5, Resolution MSC.311(88)

(x) Marine Safety Center (MSC) Guidelines for Review of Overhanging Decks, Plan Review Guidance: SOLAS-29

(y) Marine Safety Center (MSC) Guidelines for Protection of Deck Openings in Two Deck Spaces, Plan Review Guidance: SOLAS-13

(z) Port State Control (PSC) Information for February 2012 A.R.061744Z JUNE 11 1.Harmonization of PSC Efforts: Cruise Ship Guidance as It Pertains to Passenger Musters

(aa) Marine Safety Center (MSC) Guidelines for Locks and Latches in Doors in Escape Paths, Plan Review Guidance: SOLAS-49

(bb) Marine Safety Center (MSC) Guidelines for Room-In-Room Construction, Plan Review Guidance: SOLAS-25

(cc) Guidelines for the Evaluation, Testing, and Application of Low-Location Lighting on Passenger Ships, International Maritime Organization (IMO) Assembly Resolution A.752(18)

(dd) COMDT COGARD Washington DC 021939Z Nov 98, Examination of Laundry Room Ventilation Ducting on Cruise Ships

(ee) Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, Resolution MEPC.107 (49)

(ff) Guidance for the Enforcement of MARPOL Annex I during Port State Control Examinations, COMDT (G-PCV) Policy Letter 06-01

(gg) Voluntary Compliance with International Sewage Regulations in Annex IV to

MARPOL 73/78, Navigation and Vessel Inspection Circular (NVIC) 1-09

(hh) 2012 Guidelines for the Implementation of MARPOL, Annex V, Resolution MEPC.219(63)

(ii) Unified Interpretations of SOLAS Chapter II-2, the FSS Code, the FTP code and Related Fire Test Procedures, Navigation and Vessel Inspection Circular, NVIC 06-05

(jj) 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

(kk) MARPOL Consolidated Edition 2006

(ll) Procedures for Port State Control 2017, 2018 Edition

(mm) Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010

(nn) Enforcement Actions for U.S. and Foreign Flagged Passenger Ships on International Voyages Having Survival Craft Not Fit for Services, COMDT (G-PCV) Policy Letter 06-08

(oo) Operator Requirements for Foreign Flagged Cruise Ships Using Lifeboats as Tenders, COMDT (G-MOC) Policy Letter 05-03

(pp) Marine Information for Safety and Law Enforcement (MISLE) User Guide Handbook (series)

(qq) Rights of Appeal, 46 CFR Section 1.03

1. PURPOSE. To provide examiners with Coast Guard tactics, techniques, and procedures (CGTTP) on Foreign Passenger Vessels (FPVs).

2. ACTION. The provisions of this CGTTP apply to all personnel involved in examinations of Foreign Passenger Vessels (FPVs). Internet release authorized.

3. CGTTP AFFECTED. This publication supersedes the Foreign Passenger Vessel Examiners (FPVE) Tactics, Techniques, and Procedures (TTP), CGTTP 3-72.2B.

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 FPVs.

   This tactics, techniques, and procedures (TTP) publication was authored and validated by accomplished performers and subject matter experts in the field. TTP publications adhere to a life-cycle maintenance periodicity unless triggered by other revision requirements.

5. DISCLAIMER. This TTP publication is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide guidance for Coast Guard personnel and is not intended to, nor does it, impose legally binding requirements on any party outside the Coast Guard.

6. CHANGES. This TTP publication has minor revisions. Corrections to meet publication standards may result in a change to page numbering and formatting from previous versions.

    1. LOP:

        a. Publication date updated.

        b. Updated and reordered list of references.

    2. Body: Minor revision to delete reference Port State Control guidance for Examination of Fixed CO2 Firefighting Systems and Conducting Fire Drills Onboard Cruise Ships During Scheduled Examinations, CG-CVC-2, July 2013 from the document and updating the impacted reference letters throughout. Removal occurred on pages 7-2 and 7-3.

6. DISTRIBUTION. U.S. Coast Guard Force Readiness Command (FORCECOM) Training Division (FC-T) posts an electronic version of this TTP publication to the CGTTP Library on CGPortal. In CGPortal, navigate to the CGTTP Library by selecting **Training & Education**, then select the **TACTICS, TECHNIQUES, AND PROCEDURES** link. FC-T does not provide paper distribution of this publication.

7. USCG FORMS. The USCG electronic forms referenced in this publication are available on the CGPortal website.

8. REQUEST FOR CHANGES. Field feedback regarding this TTP publication, or any other located in the CGTTP Library, may be provided via email to: D05-SG-M-FORCECOM-TPTC-PRODUCTFEEDBACK@uscg.mil.

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By Direction of Chief,
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Table of Contents

Chapter 1: Introduction

Introduction

Per reference (a), Development System and Standards Tactics, Techniques, and Procedures (TTP), CGTTP 1-01 (series), *"CGTTP is NOT policy and is not used to replace or fix policy gaps."*

This chapter provides an examination overview for annual or periodic Certificate of Compliance (COC) Exams on foreign passenger vessels (FPVs) per reference (b), USCG Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M16000.7 (series), and reference (c), Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08. 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 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 (d), 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) 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.**

A.2. Scope

The scope of this TTP publication begins when an FPV is scheduled for an annual exam and ends once the exam is completed. TTP guidance focuses on conducting, assessing, and documenting the exam results.

A.3. Target Audience

The primary audience for this TTP publication is port state control officers (PSCOs) who conduct FPV exams. The intent of this TTP publication is to enhance reference (e), U.S. Coast Guard Foreign Passenger Vessel Examiner (FPVE) Port State Control Officer Performance and Qualification Standard, MPS-PQS-TCY-FPVE (series), specifically focused on the exam tasks.

A.4. Economy References

The titles of the following references are abbreviated in this TTP publication from this point forward:

- Reference (d), 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), is listed as:
  - Reference (d), SOLAS.
- Reference (f), International Convention of Standards of Training, Certification on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Including 2010 Manila Amendments, STCW Convention and STCW Code, 2011 Edition, is listed as:
  - Reference (f), STCW.
- Reference (g), The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78), is listed as:
  - Reference (g), MARPOL.

A.5. Registered Trademark Disclaimer

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A.6. Best Practice

Throughout this TTP publication, the term “best practice” is defined as an innovative or modified practice that results in an improved or more effective response that could merit adoption by other units, platform, or commands.

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.***

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 A: Pre-Examination Phase

A.1. Prepare for the Exam

The following exams are required per reference (b), USCG Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M1600.7 (series) :

Annual Exam: The focus of this exam is 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 (h), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04 and testing of the oily water separator (OWS).

Periodic Exam: The focus of this exam 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 (h) 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 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 master at least a week prior to exam. (Examples email notifications can be found on the CSNOE website).
- 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, (for example, 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.

- Relevant regulations and policies.
- Copy of the email/notification sent to the vessel master and the vessel master's reply.

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: **FPV exams might take longer than the average 5 to 6 hours due to the average size of modern cruise vessels. In order to effectively and efficiently carry out the exam, a minimum of three qualified PSCO is needed to take up the examination team. Contact the CSNOE if you are unable to provide sufficient qualified members to conduct the exam.**

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

- The lead FPVE makes team assignments per reference (i), Foreign Passenger Vessel Periodic Certificate of Compliance Process Guide, MPS-FM-CSNOE-07 (series).
- Advise team on uniform for boarding. Coveralls are the recommended team uniform.
- Identifying a waste stream not examined during the previous exam.
- 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. As a best practice, photos make it easy to describe deficiencies to officers not present when deficiencies are found.

- Safety brief to include:
  - Simultaneous operations, for example, bunkering, diving, liquefied natural gas, or other operations/activities.
  - 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.

Section B: Meet with the Vessel Master and Staff

B.1. Initial Meeting with Vessel Master and Staff

The initial meeting with the vessel master and staff serves to outline the purpose and scope of the exam and set timelines for drills. Most initial meetings include the captain, staff captain, chief engineer, safety officer, etc. Use this meeting to identify crew members needed to support the exam, outstanding conditions of class, and other Federal government agencies aboard to ensure the exam runs smoothly.

B.1.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.

B.1.b. Set Timeline and Scope

- Agree to the timeline for exam sequences.
- Communicate the scope of the exam, including:
  - Documentation.
  - Lifesaving systems.
  - Firefighting systems.
  - Waste stream audit.
  - Structural integrity.
  - Machinery systems.
  - General walk-through.
  - Security systems.
  - Drills being performed.
  - Identify resources needed to complete the exam (for example, smoke spray, access keys, etc.).
  - Confirm time of passenger muster.

NOTE: **If the vessel does not intend to conduct a brief prior to conducting drills, then discuss drills at this time. See Chapter 7: Drills.**

NOTE: **At embarkation port, lead examiner notifies the vessel master that the Coast Guard requires a passenger muster per reference (b), U.S. Coast Guard Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M16000.7 (series).**

- Determine:
  - Any modifications made to the vessel since the last USCG exam including either:
    - Modifications reviewed by the recognized organization (RO) or USCG Marine Safety Center (MSC) that must be verified by the USCG exam team.
    - Modifications that the vessel has carried out without RO or USCG knowledge.
  - 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 MSC plan review.
  - Outstanding conditions of class.
  - Any questions from the vessel master or staff prior to conducting the exam.

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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 A: Hull Walk

A.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 January 1, 2009) Principal Passenger Condition (C1 ships prior to January 1, 2009).
  - P2 (ship's keel laid on or after January 1, 2009) roll-on/roll-off (vessel) (RO-RO) Passenger/Cargo loading (C2 ships prior to January 1, 2009).
  - Proper class society markings.

NOTE: **Verify the subdivision mark on passenger vessels is not submerged in salt water.**

  - Markings are permanent and in contrasting colors.
- Verify the position of other markings with regard to reference (j), Load Line Certificate and International Convention on Load Lines, 1966 and Protocol of 1988, as amended in 2003 (2005 Consolidated Edition):
  - 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).

- Have vessel energize embarkation lighting to verify operation.
- Verify:
  - Vessel security measures. (See Chapter 5, Section A: Vessel Security Systems).

WARNING: ***Failure to maintain attention to forklift operations, especially on the pier, can result in injury or death.***

Section B: Ship's Documents

B.1. Vessel Documents

Verify the vessel's statutory documents, plans, records, and logs as well as the crew's licenses and endorsements per reference (k), Revised List of Certificates and Documents Required to Be Carried on Board Ships, International Maritime Organization (IMO), MSC.1/Circ. 1409.

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

Verify the following:

- Number of licensed officers meets the Safe Manning Certificate.
- License certificate numbers are found on flag state endorsement certificate.
- Documents are not expired.
- 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.
- Fast rescue boat training records (for crewmembers assigned to rescue boats that meet fast rescue boat specifications).

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

- 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 (vessel 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 (vessel 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 closing hull openings on board roll-on/roll-off (RO-RO) passenger ships).

B.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.
- International Safety Management (ISM) Code Document of Compliance.
- 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.
- Exemption Certificate (PSSC).
- International Energy Efficiency Certificate (IEE).
- High-Speed Craft Safety Certificate (as applicable).
- Permit to Operate High-Speed Craft (as applicable).

NOTE: **Per reference (l), 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, the vessel general permit (VGP) only applies while in U.S. waters, 3 miles from the baseline.**

B.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 vessel 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).
- Search and Rescue (SAR) for cooperation plan.
- Bunker delivery notes/fuel sample aboard (as applicable).
- List of limitations per reference (d), SOLAS.
- Damage control plans, stability booklets, and approved computer program.
- Oil record book.
- Pre-arrival/pre-departure check Navigation Safety Regulations, Part 164 of reference (m), Navigation and Navigable Waters, 33 CFR.
- Captain of the Port (COTP) waiver of reference (n), Navigation Safety Equipment Testing Required for Cruise Ships, COMDT (G-MOC) Policy Letter 02-05 (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 [k], Revised List of Certificates and Documents Required to Be Carried on Board Ships, International Maritime Organization (IMO), MSC.1/Circ. 1409). If performance of the IAPP intermediate/renewal survey is not complete for a vessel, issuance of an IEE Certificate could be delayed.**

B.3. Equivalencies or Alternative Arrangements

Verify any equivalencies or alternative arrangements to requirements are approved by the flag state per reference (d), SOLAS:

- Chapter II- 1/55.
- Chapter II- 2/17.
- Chapter III- 38.

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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 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 reference (d), SOLAS, and Navigation Safety Regulations, Part 164, reference (m), Navigation and Navigable Waters, 33 CFR. Ensure vessel deck officer is in attendance to facilitate this portion of the exam.

NOTE: **Ensure a 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).
- SAR locating devices. Annually tested on passenger ships, within 3 months before the expiration date of the Passenger Ship Safety Certificate per reference (d), SOLAS.
  - ➢ 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:
  - ➢ 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.
- United States Coast Pilot®.
- Sailing directions.
- Coast Guard Light List.
- Tide tables.
- Tidal current tables.
- The International Regulations for Preventing Collisions at Sea 1972 (COLREGs) (series), IMO.
- United States Coast Guard Navigation Rules and Regulations Handbook (series).

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

A.7.a. Log Books

Ensure the following:

- Required logs are maintained.
- 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.

NOTE:

The fire detection system may be disconnected in particular spaces if detector(s) automatically restore to normal surveillance after a predetermined time appropriate to the operation. Per reference (d), SOLAS, and reference (o), International Code for Fire Safety Systems (FSS Code), 2007:

♦ Detectors in all other spaces shall remain operational.

♦ Detection systems shall provide output signals indicating fault conditions (including disconnecting) to the bridge, continuously manned controlling stations or safety centers.

♦ Fault condition shall initiate a distinct visual and audible fault signal (different from a fire signal) at the control panel.

- 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 are not expired.

A.10. Bridge Navigation Watch Alarm System (BNWAS)

Bridge Navigational Watch Alarm System (BNWAS) verify the following:

- "Auto" mode.
- Operational modes.
  - Automatic. Does not operate under any circumstances or is not connected.
  - Manual ON. In operation constantly.
  - Manual OFF. Does not operate under any circumstances.
- Operational sequence of indicators and alarms.

A.11. Global Maritime Distress and Safety System

Verify the following:

- Certificate is valid and GMDSS is compliant for sea area where the vessel is operating.
- Radio log maintained, for example, review entries.
- The MMSI display on digital selective calling radios matches the vessel's documents.
- Dedicated crew member is on station and has sent test message.

Chapter 5:
Security Systems

Introduction

This chapter discusses the evaluation of a vessel's security program per the general requirements of the following:

- Reference (d), SOLAS.
- Reference (p), Cruise Vessel Security and Safety Act (CVSSA) of 2010.
- Reference (q), International Ship and Port Facility Security (ISPS) Code, International Maritime Organization (IMO).

In This Chapter

This chapter contains the following sections:

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:

- Reference (d), SOLAS.
- Reference (q), International Ship and Port Facility Security (ISPS) Code, International Maritime Organization (IMO).
- Reference (r), Cruise Vessel Security and Safety Act (CVSSA) of 2010 Implementation Procedures, COMDT (CG-543) Policy Letter 11-09.

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 [q]):

- 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 (s), Cruise Vessel Security and Safety Act (CVSSA) of 2010; Implementation of Training Standards and Curricula, COMDT (CG-543) Policy Letter 11-09.

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 (s),:

- 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.
  - At least 3 years of post-graduate or post-registration clinical practice in general and emergency medicine.
  - 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 Federal Bureau of Investigations (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 (q), International Ship and Port Facility Security (ISPS) Code, International Maritime Organization (IMO) and reference (t), Maritime Transportation Security Act of 2002 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:

- Reference (d), SOLAS,
- Maritime Security: Vessels, Part 104 of reference (m), Navigation and Navigable Waters, 33 CFR.
- Reference (q), as applicable for the vessel as outlined in reference (u), Coast Guard Port State Control Targeting and Examination Policy for Vessel Security and Safety, Navigation and Vessel Inspection Circular (NCIV) 06-03, 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.

A.4.a. Records	• Verify records are protected against unauthorized access. • Spot check the SSO by asking relevant questions about the security personnel, procedures, and training. • Spot check a crewmember with security responsibilities by asking questions about the security personnel, procedures and training. • Ship's ability to change Maritime Security (MARSEC) level at any given time. • Verify the Declaration of Security.
A.5. Access to Vessel Restricted Areas	Verify the following: • Authorized access to and monitoring of restricted areas. • Signage is posted.

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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 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 reference (d), SOLAS and reference (v), Adoption of the International Code for Fire Safety Systems (FSS) Code, Annex 6, Resolution MSC 98(73) (as amended).
- Firefighter's outfit:
  - Protective clothing of material to protect the skin from heat radiating from a fire, burns, and scalding by steam. The outer surface shall be water-resistant per reference (u).
  - Two-way portable radio communications.
  - 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.
  - Fireproof lifeline of at least 30 meters in length and equipped with a snap hook to attach to the apparatus.
- Additional items required in 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.

Description	Formula	Number
Every ship	+2	2
For every 80 meters or part thereof of the longest deck that carry passengers or service spaces	+2/per 265/80=3.3125 The additional .3125 is considered "or part thereof"	8
Per MVZ, none of which are independent S/C and have (6)(7)(8) and (12)	+2/per MVZ x 6=	12
	Total=	22

Table 6-1 Firefighter outfit matrix

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

- 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), STCW 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), STCW 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. Fire Alarms and Detection Systems

Purpose is to spot check the proper operation of fire alarms (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 (o), International Code for Fire Safety Systems (FSS Code), 2007 and reference (w), Adoption of Amendments to the International Code for Fire Safety Systems (FSS Code), Annex 5, Resolution MSC.311(88).

A.5.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.5.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.5.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.6. 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.7. 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.8. 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 reference (d), SOLAS 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 reference (d), SOLAS and company/vessel specific firefighting instruction manual 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:	**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 that 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. • Automatic shutdown of ventilation system located close to the galley entrance. • Automatic closure of lower duct fire dampers. • Audible and visual alarms of fixed fire extinguishing system (CO_2).
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 impacts on 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).

NOTE: **For vessels fitted with traditional sprinkler systems, confirm windows adjacent to embarkation areas are either A-30 or protected by a dedicated sprinkler head. For vessels fitted with a high pressure water mist system, A-0 windows may be used without a dedicated sprinkler head if the system fully protects the interior space.**

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, for example, if a system has six motors, five start with one in standby.**

- Cross connect to fire main system is installed and locked.

- 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. 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 the 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 system static pressure).
- Equipment is accessible and in good working order.
- Spare heads (provided on board).

B.2.e. 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: **A pre-action or remotely activated stop valve is required on a dry sprinkler system. 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 the 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.

B.2.f. Local Application Section Valve Test

Verify the operation of the local application fire extinguishing system section valves in all modes of operation. Test minimum three sections valves, one per mode of operation:

- Operate section valve by means of local activation.
- Operate section valve by means of remote operation.
- Operate section valve by means of automatic activation (2 sensors).

NOTE: **Only test local application section valves associated with systems required per reference (d), SOLAS.**

B.2.g. 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 (x), Marine Safety Center (MSC) Guidelines for Review of Overhanging Decks, Plan Review Guidance: SOLAS-29 and reference (y), Marine Safety Center (MSC) Guidelines for Protection of Deck Openings in Two Deck Spaces, Plan Review Guidance: SOLAS-13.

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)	Verify the following for 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.**

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 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. Fire Drill	The purpose is to verify the competency and proficiency of the vessel's firefighting procedures, training plan, and crew per reference (d), SOLAS. Pre-Drill: Discuss fire drill and abandon ship drill together with ship personnel (can be combined with the initial meeting with the vessel master depending on ship's procedures). • Coordinate with the vessel 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 vessel 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 vessel 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 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.2.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 reference (d), SOLAS. The crew quickly locates, identifies, and explains the plan. Give special attention to the actions of the vessel master and his or her ability to maintain control of the emergency situation and to direct the different aspects of the emergency response.

A.2.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 (fire teams and scene leaders) locally. Examiners debrief vessel master and other designated staff upon the completion of the drill.**

A.2.c. Staging Area

Verify the following:

- Proper command and control.
- Location is safe.

A.2.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.2.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.3. Abandon Ship Drill

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

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 reference (d), 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.3.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.3.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.3.c. Liferaft Inflation and Crew Training

Verify the following:

- Launching of davit-launched liferaft.

NOTE:	**Per reference (c), Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08, do not accept a training liferaft unless it is substantially the same size and type liferaft used for primary lifesaving.**
	• 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 (for example, 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 reference (d), SOLAS are met.
A.3.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.4. Survival Craft Launching and Recovery Arrangements	Verify the following for survival craft launching and recover arrangements:
A.4.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.4.b. Descent Devices Relative to Embarkation	Verify the following: • Descent devices (if equipped) are in good condition and readily

Ladders	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.4.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.5. Post Drill	Verify the following: • That all elements of a fire drill and abandon ship drills per reference (d), SOLAS are met.
NOTE:	**Conclude drill and debrief vessel 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 reference (c), Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08 as part of each annual and periodic exam. Per reference (z), Port State Control (PSC) Information for February 2012 A.R. 061744Z JUN 11 1.Harmonization of PSC Efforts: Cruise Ship Guidance as It Pertains to Passenger Musters, in those rare situations where an exam is scheduled but passengers have not embarked in your port, a passenger muster is not required.

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 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 references (d), SOLAS and (aa), Marine Safety Center (MSC) Guidelines for Locks and Latches in Doors in Escape Paths, Plan Review Guidance: SOLAS-49.
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: • Doors are operational to escape trunks. • Able to open doors and hatches from the inside.
A.1.d. Stairways and Stairway Landings	Verify the following: • Direct access only from public toilets, public spaces, corridors, lifts, and special category spaces. • Stair towers correctly enclosed by appropriate fire doors. • Only the following are allowed in the perimeter: public toilets, lockers with non-combustible materials (safety lockers), open information counters and fixed seating limited to six.
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 reference (d), SOLAS 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 public address system is audible (typically verified during drill).
- Donning lifejacket instructions are conspicuous 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 (bb), Marine Safety Center (MSC) Guidelines for Room-In-Room Construction, Plan Review Guidance: SOLAS-25:

- Has means of immediate and clear notification of a fire in the surrounding space.
- 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 (cc), Guidelines for the Evaluation, Testing, and Application of Low-Location Lighting on Passenger Ships, International Maritime Organization (IMO) Assembly Resolution A.752(18).

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. Laundry Room

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 (dd), COMDT COGARD Washington DC 021939Z Nov 98, Examination of Laundry Room Ventilation Ducting on Cruise Ships.

B.2. Public Spaces

Ensure access to means of escape and placement/operation of emergency/fire equipment.

Verify the following:

- Escapes signs are clearly indicated.
- Means of egress are clear of obstructions.
- Public address system and general alarm is audible and overrides all other sound systems.

B.3. 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.4. 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 (p), Cruise Vessel Security and Safety Act (CVSSA) of 2010.
- Access to embassy hotline numbers.

B.5. 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.6. 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 (d), SOLAS. 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.7. 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.8. Photo Lab

Verify for the following:

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

B.9. Garbage Room

Verify the following:

- No improper stowage of combustible/flammable materials inside space.
- Use of containers constructed of combustible materials in galleys, pantries, bars, garbage handling or storage spaces and incinerator rooms if used purely for carrying wet waste, glass bottles, and metal cans, and are suitably marked.
- Protected by an appropriate fire extinguishing arrangement.

B.10. Paint Lockers

Verify the following:

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

B.11. 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.

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 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 (h), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04.

A.1.a. Oil Pollution Prevention Systems

Verify the following with section C1 of reference (h):

- OWS and oily content meter (OCM)/bilge alarm has been approved by the Coast Guard or appropriate Administration meeting per reference (ee), Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, Resolution MEPC.107 (49).

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 Equipment Test and Inspections, Section 156.710 of reference (m), Navigation and Navigable Waters, 33 CFR.
- 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 (ee), Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, Resolution MEPC.107 (49) requirements:

- Verify OCM has current calibration certificate and tamper seals.
- Reference (ee) 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 (ff), Guidance for the Enforcement of MARPOL Annex I during Port State Control Examinations, COMDT (G-PCV) Policy Letter 06-01.

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 (ff) 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 with section C2 of reference (h), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04:

- If grey water is directed to marine sanitation device (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 with section C3 of reference (h), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04:

- 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 per reference (gg), Voluntary Compliance with International Sewage Regulations in Annex IV to MARPOL 73/78, Navigation and Vessel Inspection Circular (NVIC) 1-09.
- A durable nameplate attached to the device containing the following information:
  - Name of manufacturer.
  - Name and model number of the device.
  - Month and year of manufacture.
  - Serial Number.
- Device nameplate may contain the required markings as required by the issued type certification issued by the RO.
- 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.
- Each Type I or Type II device is capable of being secured in a manner preventing discharge of treated or untreated sewage. Acceptable methods of securing the device include:

- Closing the seacock and removing the handle.
- Padlocking the seacock in the closed position.
- Using a non-releasable wire-tie to hold the seacock in the closed position.

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 with section C4 of reference (h), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, Navigation and Vessel Inspection Circular (NVIC) 04-04:

- 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 indicating that 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 with section C5 of reference (h):

- 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 overboard discharge plastics or synthetics.
- Per reference (hh), 2012 Guidelines for the Implementation of MARPOL, Annex V, Resolution MEPC.219(63) placards are placed in prominent places:
  - Where the crew works and lives

  - Where garbage bins are located.
  - Where passengers lodge and congregate (for example, cabins and recreational deck areas, etc.).
- Per reference (ii), Unified Interpretations of SOLAS Chapter II-2, the FSS Code, the FTP code and Related Fire Test Procedures, Navigation and Vessel Inspection Circular, NVIC 06-05 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

B.1. Vessel General Permit (VGP)

Purpose is to ensure compliance with reference (l), 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.

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

NOTE: **The vessel maintains 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 (jj), 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: • 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 suctions 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.

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 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 reference (kk), MARPOL Consolidated Edition 2006 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

The purpose of verifying the operation of the steering system is to ensure the crew is able to demonstrate proper operation of all steering gears per reference (d), SOLAS 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 for the main steering gear:

- 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.

Verify the following for the auxiliary steering gear:

- Capable of putting the rudder over from 15° on one side to 15° on the other side in not more than 60 seconds.
- Where the main steering gear comprises two or more identical units, an auxiliary steering gear need not be fitted.

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.
- Shaft speed diagram is located at emergency propulsion station.

NOTE: **Vessels equipped with steering components not containing hydraulic fluid may not have handrails, gratings, or other non-slip surfaces.**

A.5. Emergency Shutdowns

Purpose is to verify the emergency shutdowns of machinery space ventilation (fans and dampers), fuel pumps, fuel 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. Fuel Oil Purifiers	Verify the following: • Purifiers are running at full speed. • Purifiers can be remotely secured (ECR/Safety Center). Test remote operation.
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 vessel 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 (c), Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08 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	Verify the following for 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.

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 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. Flooding Control Measures

Purpose is to verify the proper operation and arrangements of flooding control 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) Test

Per reference (d), SOLAS, verify 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 is no less than 20 seconds or no 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.**

- Documentation of required test completed 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) push back safety device (if equipped) operates as per manufacturers specifications.

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 per reference (b), USCG Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M16000.7 (series). Also, examiners should refer to reference (ll), Procedures for Port State Control 2017, 2018 Edition to help define the criteria required to establish "clear rounds" for an expanded exam.**

Chapter 12:
Survival Equipment

Introduction This chapter discusses survival equipment.

In This Chapter This chapter contains the following sections:

Section A: Survival Equipment

A.1. Survival Equipment

Verify survival equipment.

A.1.a. Survival Craft Requirements

International Voyage per reference (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010

- 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 (mm)

- 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 (nn), Enforcement Actions for U.S. and Foreign Flagged Passenger Ships on International Voyages Having Survival Craft Not Fit for Services, COMDT (G-PCV) Policy Letter 06-08:

Temporary Reduction of Total Persons on Board
Per reference (d), SOLAS 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 reference (d), 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 reference (d), SOLAS 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 reference (d) 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 (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010.
  - 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 reference (d), SOLAS.
- 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 (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010:

- 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 desalinator 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 (d), SOLAS 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 reference (d), SOLAS. ➢ 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 (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010 (if required to carry aboard per reference [d]). ➢ Quantity and arrangement per reference (d).

- 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 (d), SOLAS and (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010 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), Control Verification Examinations (CVEs) of Foreign Passenger Vessels, Navigation and Vessel Inspection Circular (NVIC) 03-08, 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 (d) lifeboats is based on the inherent level of safety provided by reference (ll) 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 (oo), Operator Requirements for Foreign Flagged Cruise Ships Using Lifeboats as Tenders, COMDT (G-MOC) Policy Letter 05-03, a licensed vessel 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.

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Chapter 13:
Post Examination

Introduction This chapter discusses post examination procedures.

In This Chapter This chapter contains the following sections:

Section A: Post Examination

A.1. Introduction

The purpose of the post examination is to debrief the vessel master and the crew about the exam and issue deficiencies if needed. Complete post examination paperwork and data entry requirements.

A.2. Conduct Post Exam Meeting with the Vessel Master

- Discuss findings, observations, and any outstanding deficiencies with the vessel master.
- Complete the following:
  - USCG Port State Control Report of Inspection, CG5437A (Form A).
  - USCG Port State Control Report of Inspection, CG5437B (Form B).
- Endorse COC to vessel to include the following:
  - Location where the drill was witnessed.
  - Life boats lowered.
  - Type of waste stream examined.
  - Number of deficiencies issued, cleared, and remaining.

NOTE: **If the debrief is conducted before the passenger muster, then remind the vessel master that the USCG will remain on board until after the muster is completed. If there are no issues with the muster, then the USCG departs immediately after muster, then the USCG returns to the bridge to discuss findings with the vessel master which might include issuing an additional USCG Port State Control Report of Inspection, CG5437B.**

- 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.

A.3. Data Entry

Complete MISLE activity per reference (pp), Marine Information for Safety and Law Enforcement (MISLE) User Guide Handbook (series).

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.

NOTE:

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), Rights of Appeal, 46 CFR Section 1.03.

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Chapter 14:
RO-RO Addendum

Introduction

This chapter discusses specific requirements for RO-RO vessels as outlined in reference (d), SOLAS.

In This Chapter

This chapter contains the following sections:

Section A: Escape Requirements

A.1. Introduction

This test verifies means of escape from RO-RO and special category spaces as well as specific requirements for means of escape for RO-RO passenger spaces.

A.2. Means of Escape from Machinery Spaces

Verify one of the escape routes from the machinery spaces where crew normally operates avoids direct access to any special category space.

A.3. Means of Escape from RO-RO Spaces

Verify two means of escape from RO-RO spaces:

- Provide safe escape to lifeboat and liferaft embarkation decks.
- Are located at the fore and aft ends of the space.

A.4. Additional Escape Requirements

Verify the following:

- Escape routes provided from every normally occupied space to an assembly station.
- External routes are provided from open decks to the survival craft embarkation stations.
- Openings in enclosed spaces adjoining an open deck can be used as emergency exits.
- Escape routes are unobstructed by furniture and other objects.
- Decks are sequentially numbered starting with 1 at the tank top or lowest deck and the deck number prominently displayed at stair landings.
- Prominent display in each cabin and all public spaces of simple “mimic” plans showing “you are here” position and escape routes marked by arrows.
- Handrails or handholds provided in corridors along entire escape route.

Section B: Electrical Requirements

B.1. Introduction

This test verifies proper operation of additional emergency lighting requirements for RO-RO vessels.

B.2. Supplementary Emergency Lighting

Verify the following:

- All public spaces and alleyways have supplementary electric lighting that:
  - Operate for 3 hours during failure of all other sources of electrical power.
  - Operate under any condition of heel.
- Disconnection of any chargers or other sources of power from the lighting unit accumulator battery during testing.
- Continuous charge of lighting units, where practical, from the emergency switchboard.
- A portable rechargeable battery operated lamp is located in every crew space alleyway, recreational space, and every normally occupied working space unless equipped with supplementary emergency lighting.

Section C: Stability Management

C.1. Introduction

This test verifies special requirements for RO-RO spaces stability management are in place.

C.2. Hull Integrity

Verify the following:

- Indicators are located on the navigation bridge for all shell doors, loading doors, and other closing appliances meeting the requirements of reference (d), SOLAS.
- Vehicle ramp openings are weathertight and have audible alarms and visual indicators that sound at the navigation bridge. The alarm and visual indication provided on the bridge should indicate if vehicle ramps are open and closed.
- Audible alarms and visual indicators to specify if shell doors are not fully closed or if any of the securing arrangements are not in place and fully locked.
- Video surveillance and water leakage detection installed to provide an indication of any leakage through inner and outer bow door, stern door, or any other shell door that could lead to flooding of the special category or RO-RO spaces.

NOTE: **Per reference (d), detection alarms shall sound at the navigation bridge as well as the engine control station.**

C.3. Special Requirements for RO-RO Passenger Vessels

Verify the following:

- Continuous patrol or monitoring of special category and RO-RO spaces by effective means such as video surveillance.
- Posted operating procedures for closing and securing all shell doors, loading doors, and other closing appliances.

Section D: Special Requirements

D.1. Introduction

This test verifies additional safety measures to address the fire safety objectives for ships fitted with vehicle, special category, and RO-RO spaces.

D.2. Ventilation Systems

Verify the following:

- A power ventilation system separate from other ventilation systems sufficient to give:
  - Special category spaces - 10 air changes per hour.
  - Ships with closed RO-RO and vehicle spaces other than special category spaces carrying more than 36 passengers – 10 air changes per hour.
  - Ships with closed RO-RO and vehicle spaces other than special category spaces carrying not more than 36 passengers – 6 air changes per hour.
- Means provided on navigation bridge to indicate a loss of required ventilation.
- Arrangements provided for a rapid shutdown and closure of the ventilation system from outside the space.

D.3. Permanent Openings

Verify the following:

- Permanent openings in side plating.
- Location of ends (referring to the ends of the deck near the bow and stern as defined in reference [d]) or deckhead do not enable fire to endanger:
  - Stowage areas, embarkation stations for survival craft, or accommodation spaces.
  - Service spaces and control stations in superstructures and deckhouses above.

D.4. Electrical Equipment and Wiring

Per reference (d), SOLAS, electrical equipment and wiring installed in exhaust ventilation duct is approved for use in an explosive petrol and air mixture.

D.5. Structural Fire Protection

Verify “A-60” class standard insulation for boundary bulkheads and decks of special category spaces and RO-RO spaces. Per reference (d), where a category (5), (9) or (10) space is on one side of the division, reduce the standard to “A-0”. Where fuel oil tanks are below a special category space or a RO-RO space, reduce the integrity of the deck between such spaces to ‘‘A-0’’ standard.

D.6. Fire Extinction

Verify the following:

- Vehicle spaces and non-special category RO-RO spaces are sealable from outside the cargo spaces and have a fixed gas fire-extinguishing system.
- RO-RO and vehicle spaces not capable of being sealed, and special category spaces have an approved fixed pressure water-spraying system for manual operation which can protect all parts of any deck and vehicle platform. Below are the examination requirements for the fixed pressure water-spraying system:
  - Pressure gauge on the valve manifold.
  - Clear marking on each manifold valve indicating the spaces served.
  - Instructions for maintenance and operation located in the valve room.
- On fixed pressure-spraying fire extinguishing systems (if provided):
  - Spaces above the bulkhead deck and scuppers are fitted to ensure water is rapidly discharge directly overboard.
  - Discharge valves for scuppers fitted with positive means of closing are operable from a position above the bulkhead deck. (Per reference (d), SOLAS, these valves shall be kept open at sea).
  - Drainage system is sized to remove no less than 125 percent of the combined capacity of both the water-spraying system and the required number of fire hose nozzles.
  - Drainage system is operable outside the protected space near the extinguishing system controls.

D.7. Portable Fire Extinguishers

Verify the following:

- Portable fire extinguishers are located at each deck level, and in each hold or compartment carrying vehicles, spaced no more than 20 meters apart on both sides of the space.
- Three water-fog applicators.
- One portable foam applicator unit.

Section E: Lifesaving Equipment and Apparatus

E.1. Introduction

This test verifies additional safety measures to address the fire safety objectives for ships fitted with vehicle, special category, and RO-RO spaces.

E.2. Fast Rescue Boat

Verify the following:

- At least one rescue boat is a fast rescue boat approved by the Administration.
- Training and drills of at least two crew members are conducted per reference (d), SOLAS.

E.3. Liferafts

Verify the following:

- Every liferaft has float-free stowage arrangements.
- Every liferaft has a boarding ramp.
- Every liferaft is either automatically self-righting or is a canopied reversible liferaft that is stable in a seaway and capable of operating safely regardless of orientation.
- One radar transponder for every four liferafts.
- Containers for liferafts fitted with transponders are clearly marked.

E.4. Means of Rescue

Verify the following:

- A means of rapidly recovering survivors from the water and transferring from rescue units or survival craft to the ship.
- Per reference (d), if the MES slide is intended to provide the means of transfer of survivors to the deck of the ship, the slide shall have hand lines or ladders to aid in climbing.

E.5. Lifejackets

Verify the following:

- Per reference (d), SOLAS, there shall be a sufficient number of lifejackets stowed near the muster stations so passengers do not have to return to their cabins to collect their lifejackets.
- Each lifejacket has a light complying with the requirements of reference (mm), Life-Saving Appliances (LSA) Code, International Maritime Organization (IMO), 2010.

Appendix A:
Acronyms

AIS	Automatic Identification System.
ARPA	Automatic radar plotting aid.
ASP	Application service provider.
BNWAS	Bridge Navigation Watch Alarm System.2
BWM	Ballast water management.
CBP	Customs and Border Protection.
CO_2	Fire extinguishing system.
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.
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.
FORCECOM	Force Readiness Command.
FBI	Federal Bureau of Investigations.
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.
NVIC	Navigation and Vessel Inspection Circular.
OCM	Oily content meter.
OCMI	Officer in charge, marine inspections.

OWS	Oily water separator.
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.
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.
USCG	United States Coast Guard.
USPHS	U.S. Public Health Service.
VDR	Voyage data recorder.
VGP	Vessel General Permit.
WTD	Watertight door.


UNITED STATES COAST GUARD
FORCE READINESS COMMAND