



Foreign Passenger Vessel (FPV) Certificate of Compliance (COC) Periodic Exam Tactics, Techniques, and Procedures (TTP)



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

CGTTP 3-72.10
August 2018

This page intentionally left blank.



CGTTP 3-72.10
15 AUGUST 2018

COAST GUARD TACTICS, TECHNIQUES, AND PROCEDURES, CGTTP 3-72.10

Subj: FOREIGN PASSENGER VESSEL (FPV) CERTIFICATE OF COMPLIANCE (COC)
PERIODIC EXAM

- Ref:
- (a) Development System and Standards Tactics, Techniques, and Procedures (TTP), CGTTP 1-01 (series)
 - (b) Port State Control Guidelines for the Enforcement of Management for the Safe Operation of Ships (ISM Code), NVIC 04-05, COMDTPUB P16700.4 (series)
 - (c) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Including 2010 Manila Amendments, STCW Convention and STCW Code, 2011 Edition
 - (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) Prevention of departure, 46 U.S.C. § 3505
 - (f) The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series)
 - (g) U.S. Coast Guard Foreign Passenger Vessel Examiner (FPVE) Port State Control Officer Performance and Qualification Standard, MPS-PQS-TCY-FPVE (series)
 - (h) The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL) (73/78)
 - (i) Foreign Passenger Vessel Examiners Tactics, Techniques, and Procedures (TTP), CGTTP 3-72.2 (series)
 - (j) Foreign Passenger Vessel Periodic Certificate of Compliance Process Guide, MPS-FM-CSNCOE-07 (series)
 - (k) Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, NVIC 04-04, COMDTPUB P16700.4 (series)
 - (l) List of Certificates and Documents Required to be Carried On Board Ships, 2017, FAL.2/Circ.131-MEPC.1/Circ.873-MSC.1/Circ.1586-LEG.2/Circ.3 of 2017-07-19
 - (m) Tests before entering or getting underway, 33 CFR § 164.25
 - (n) COLREGs - International Regulations for Preventing Collisions at Sea^(c) 2005, Lloyds Register or International Marine Organization

- (o) United States Coast Guard Navigation Rules and Regulations Handbook (series)
 - (p) 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
 - (q) Cruise Vessel Security and Safety Act (CVSSA) of 2010
 - (r) Guidelines for 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, CG-543 Policy Letter 11-01, Feb. 11, 2011
 - (s) Marine Information for Safety and Law Enforcement (MISLE) User Guide Handbook (series), USCG Operations Systems Center
 - (t) Rights of Appeal, 46 CFR, Part 1, Subpart 1.03
1. PURPOSE. To provide port state control officer (PSC) examiners with Coast Guard tactics, techniques, and procedures (CGTTP) to conduct periodic COC exams on FPVs.
 2. ACTION. This tactics, techniques, and procedures (TTP) publication provides guidance to United States Coast Guard (USCG) personnel charged with conducting onboard examinations of foreign freight vessels (FFVs) within United States (U.S.) waters. Internet release authorized.
 3. CGTTP AFFECTED. None.
 4. DISCUSSION. The United States Coast Guard (USCG) performs periodic COC exams to ensure vessels are operated in a safe manner. This exam focuses on the performance of officers and crew with specific attention to their training and performance during the drills. 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 USCG.
 6. DISTRIBUTION. U.S. Coast Guard Force Readiness Command (FORCECOM) Training Division (FC-T), TTP Section, posts an electronic version of this TTP publication to the CGTTP Library on CGPortal. In CGPortal, navigate to the CGTTP Library by selecting **References**, then select the **TACTICS, TECHNIQUES, AND PROCEDURES LIBRARY** link. FC-T, TTP Section 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. Submit recommendations for TTP improvements or corrections through the TTP Request webpage on CGPortal. In CGPortal, navigate to the TTP Request webpage by selecting **References**, then selecting the **TTP Requests** link.

BRYAN J. BURKHALTER
Commander, U.S. Coast Guard
Director, Performance Technology Center (FC-Tptc)
By Direction of Chief,
Force Readiness Command Training Division

This page intentionally left blank.

Table of Contents

Chapter 1: Introduction	1-1
Section A: Introduction	1-2
Section B: Notes, Cautions, and Warnings.....	1-5
Chapter 2: Preparation and Pre-examination Procedures	2-1
Section A: Pre-examination Phase	2-2
Section B: Meet with the Vessel Master	2-6
Chapter 3: Hull Walk and Vessel’s Documents.....	3-1
Section A: Hull Walk.....	3-2
Section B: Vessel’s Documents.....	3-4
Chapter 4: Bridge Safety and Navigation Equipment.....	4-1
Section A: Bridge Safety and Navigation Equipment	4-2
Chapter 5: Drills	5-1
Section A: Alarms and Drills	5-2
Section B: Passenger Muster	5-12
Chapter 6: Walkthrough and Crew Proficiency Verification	6-1
Section A: Vessel Security Systems and the Cruise Vessel Security and Safety Act	6-2
Section B: Firefighting Systems	6-4
Section C: Structural Fire Protection Elements	6-5
Section D: Means of Escape and Signage.....	6-6
Section E: Unique Risk Spaces	6-7
Section F: Environmental Systems	6-9
Section G: Engineering Systems	6-12
Chapter 7: Post-examination Procedures	7-1
Section A: Post-examination Procedures	7-2
Appendix A: Acronyms	A-1

This page intentionally left blank.

Chapter 1: Introduction

Introduction

This chapter overviews the contents of this tactics, techniques, and procedures (TTP) publication. It also defines the use of notes, cautions, and warnings in this TTP publication. See [Appendix A: Acronyms](#) for an explanation of terms and acronyms used in this TTP publication. 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.*”

In This Chapter

This chapter contains the following sections:

Section	Title	Page
A	Introduction	1-2
B	Notes, Cautions, and Warnings	1-5

Section A: Introduction

A.1. Background and Performance Objective(s)

The objective of this TTP publication is to provide a standardized, service-wide approach to conducting periodic Certificate of Compliance (COC) exams by promoting the consistent application of:

- Reference (b), Port State Control Guidelines for the Enforcement of Management for the Safe Operation of Ships (ISM Code), NVIC 04-05, COMDTPUB P16700.4 (series).
- Reference (c), International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Including 2010 Manila Amendments, STCW Convention and STCW Code, 2011 Edition.
- 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).

Foreign passenger vessels (FPVs) carry more than 10 million passengers out of United States (U.S.) ports per year, according to the Cruise Ship National Center of Expertise (CSNCOE). At any particular time, roughly 200,000 passengers embarked in the U.S. are underway, cruising on FPVs. Each of these vessels typically have 4,500 passengers sailing on them each week. The U.S. Coast Guard (USCG) completes an average of 150 COC exams every year.

The USCG performs periodic exams to ensure passenger vessels are operated in a safe manner. These exams focus on the performance of officers and crew with specific attention to their training and proficiency.

As a best practice, port state control (PSC) examiners test equipment or systems only if there is evidence they are not in full compliance after an annual/initial exam has been conducted. Periodic exams typically include a document check, a vessel walkthrough, and drills performed by officers and the crew.

The following references provide authority for FPV exams:

- Reference (e), Prevention of departure, 46 U.S.C. § 3505, provides the USCG authority to issue a COC to FPVs.
- Reference (f), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series).

A.2. Scope

The scope of this TTP publication begins when an FPV is scheduled for a periodic 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 are PSC examiners who conduct FPV exams. The intent of this publication is to enhance reference (g), U.S. Coast Guard Foreign Passenger Vessel Examiner (FPVE) Port State Control Officer Performance and Qualification Standard, MPS-PQS-TCY-FPVE (series), and is focused on the exam tasks.

A.4. Economy of References

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

- Reference (c), International Convention 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 (c), STCW.
- 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 (h), 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 (h), MARPOL.

**A.5. Registered
Trademark
Disclaimer**

The use of registered trademarks in this TTP publication is not an endorsement of these products or companies by the USCG, the Department of Homeland Security, or the Federal Government. This TTP publication has not been prepared, approved, or licensed by any entity that created or produced products referenced herein. Therefore, any use of third-party logos or trademarks is non-commercial in nature and constitutes a nominative fair use.

**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, platforms, or commands.

**A.7. Critical
Terminology**

This TTP publication uses the terms “ship” and “vessel” interchangeably throughout.

Section B: Notes, Cautions, and Warnings

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

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 personnel injury or death.*

This page intentionally left blank.

Chapter 2: Preparation and Pre-examination Procedures

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

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Pre-examination Phase	2-2
B	Meet with the Vessel Master	2-6

Section A: Pre-examination Phase

A.1. Prepare for the Exam

The following exams are required per reference (f), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series):

- Annual exam: The focus is on testing shipboard systems to ensure the vessel is in the same operating condition it was during the initial COC exam. For more information, see reference (i), Foreign Passenger Vessel Examiners Tactics, Techniques, and Procedures (TTP), CGTTP 3-72.2 (series).
- Periodic exam: The focus is on the 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 and testing of the oily water separator (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 masters or cruise line company representatives typically schedule exams well in advance with the local USCG inspection office.

As a best practice:

- Ensure a cruise vessel has scheduled a required exam while vetting the vessel's advanced notice of arrival.
 - 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.
 - If a vessel is due for an exam and does not have an exam scheduled in another port, then contact the cruise line company to schedule the exam.
-

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

Use pre-exam communication to identify vessel crew members needed to support the exam.

The lead FPVE:

- Communicates with the vessel prior to the exam to ensure logistics and organization of the exam are set.
- Sends an email to the vessel's master at least a week prior to the exam. Example email notifications can be found on the CSNCOE website.
- Requests:
 - A copy of the vessel's Passenger Ship Safety Certificate (PSSC) to include record of Equipment for the Passenger Ship Safety Certificate (Form P), and continuous synopsis record (CSR).
 - A description of any modifications to the vessel since the last exam.
 - Emergency response written procedures.
 - Vessel's schedule while in port, for example, other government agencies aboard, bunkering or dive operations, maintenance, and surveys.
 - Copies of any outstanding conditions of class.

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

Collect and prepare the following paperwork to bring aboard the vessel:

- Reference (j), Foreign Passenger Vessel Periodic Certificate of Compliance Process Guide, MPS-FM-CSNCOE-07 (series), for each team member.
- Vessel critical profile.
- Relevant regulations and policies.
- Copy of the email/notification sent to the master and the master's reply.
- Reference (k), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, NVIC 04-04, COMDTPUB P16700.4.

A.1.d. Prepare the Exam Team The lead FPVE makes team assignments per reference (j), Foreign Passenger Vessel Periodic Certificate of Compliance Process Guide, MPS-FM-CSNCOE-07 (series).

NOTE:

FPV exams might take longer than the average five to six hours due to the size of modern cruise vessels. In order to effectively and efficiently carry out the exam, a minimum of three qualified FPVEs per exam and one qualified PSC examiner is required to make up the examination team per reference (f), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series). Contact the CSNCOE if you are unable to provide sufficient qualified members to conduct the exam.

The lead FPVE meets with the team to discuss scope of the exam and reviews/discusses the following topics:

- Vessel history, special notes, and statutory documents, if provided.
- Use of cameras to document issues found during the exam. As a best practice, photos make it easy to describe deficiencies to officers not present when deficiencies are found.
- Identifying a waste stream not examined during the previous exam.
- Safety brief to include:
 - Simultaneous operations, for example, bunkering, diving, liquified natural gas, or other operations/activities.
 - Watertight door (WTD) danger and safety.
 - Carbon dioxide (CO₂) and machinery space hazards, for example, slips, trips, and falls.
 - Electrical safety.
 - Longshoremen during hull walk.
 - Liferaft safety during the drill.
 - Personnel protection equipment:
 - Steel toe boots.
 - Hearing protection.

Foreign Passenger Vessel Certificate of Compliance Periodic Exam TTP

- Flashlight.
 - Personal radiation detector.
 - Multi-gas protector.
-

Section B: Meet with the Vessel Master

B.1. Initial Meeting with Master and Vessel 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

Discuss and confirm:

- Type of exam.
- Date of the previous USCG exam.
- Communication and preparation by reviewing the master's response to the pre-exam email/notification as well as any changes.

B.1.b. Set Exam Timeline and Scope

Discuss:

- Timeline for exam sequences.
- Scope of exam including:
 - Documents.
 - General walkthrough.
 - Questioning of crew members.
 - Security systems.
 - Drills.

NOTE:

If the vessel does not intend to conduct a brief prior to conducting drills, then discuss drills at this time. See [Chapter 5: Drills](#).

- Resources needed to complete the exam, for example, smoke spray/access keys.
- Confirm time of passenger muster.

NOTE:

At embarkation port, the lead FPVE notifies the master that the USCG is required to witness passenger muster per reference (f), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series).

- Determine:
 - Any modifications made to the vessel since that last USCG exam including either:
 - Modifications reviewed by the recognized organization (RO) or USCG Marine Safety Center that must be verified by the USCG exam team.
 - Modifications that the vessel has carried out without RO or USCG knowledge.
 - Any modifications to the vessel since the last Marine Safety Center plan review.
 - Any operations that could affect exam, including bunkering operations, diving operations, or vessel repairs, etc.
 - If a major crew turnover has occurred.
 - Other Federal Government agency inspections that could affect the crew or the USCG exam, for example, U.S. Customs and Border Protection or U.S. Public Health Service.
 - Outstanding conditions of class.
 - Any questions from the vessel master or staff prior to conducting the exam.
-

This page intentionally left blank.

Chapter 3: Hull Walk and Vessel's Documents

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

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Hull Walk	3-2
B	Vessel's Documents	3-4

Section A: Hull Walk

A.1. Conduct Hull Walk

Conduct a hull walk deck to evaluate various aspects of a vessel's structure.

WARNING:

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

A.2. Conducting the Exam

Verify the following:

- 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.
- The condition and position of side shell openings. Identify the number of open side shell doors and match them with the side shell door indicator on bridge.
- The subdivision load line position in relation to the waterline:
 - P1 when ship's keel laid on or after January 1, 2009, principal passenger condition, that is, C1 ships prior to January 1, 2009.
 - P1 indicates stability factored by probabilistic calculations and C1 factored by deterministic calculations.
 - P2 as noted in the PSSC.
 - Proper class society markings.
 - Markings are permanent and in contrasting colors.
- The position of other markings:
 - Draft marks.
 - Ship identification number, that is, IMO number.
- Visual condition of lifesaving apparatus paying attention to any obvious damage or newly repaired areas.
- Have vessel energize embarkation lighting to verify operation.

- Vessel security measures.

For more information regarding vessel security measures, see reference (i), Foreign Passenger Vessel Examiners Tactics, Techniques, and Procedures (TTP), CGTTP 3-72.2 (series).

NOTE:

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

Section B: Vessel'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 (l), List of Certificates and Documents Required to Be Carried on Board Ships, 2017, FAL.2/Circ.131-MEPC.1/Circ.873-MSA.1/Circ. 1586-LEG.2/Circ.3 of 2017-07-19.

B.1.a. License and Flag State Endorsements

Verify the following:

- Number of licensed officers is consistent with the Safe Manning Certificate.
 - License certificate numbers are found on the Flag State Endorsement Certificate.
 - Documents are not expired.
 - Level of competency is consistent with the job done by the individual.
 - Crew medical certificates.
 - Basic safety training per reference (c), STCW and reference (d), SOLAS.
 - A deck officer or certificated person in charge is assigned for each survival craft listed on the PSSC.
 - Mandatory minimum requirements for specific passenger vessel training per reference (d):
 - *Crowd management training, for example, 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, for example, masters, chief engineer officers, chief mates, second engineer officers and any person with responsibility for the safety of passengers in an emergency situation.*
 - *Passenger safety, cargo safety, and hull integrity training, for example, masters, chief mates, chief engineer officers, second engineer officers and persons assigned immediate responsibility for embarking and disembarking passengers for loading, discharging, or securing cargo, or for the closing hull openings on board roll-on/roll-off (RO/RO) passenger vessels.*
-

B.1.b. Certificates	<p>Verify the following:</p> <ul style="list-style-type: none"> • Certificate of Registry. • Classification document. • International Tonnage Certificate. • PSSC. • Record of Equipment, PSSC Form P. • International Load Line Certificate. • International Safety Management (ISM) Code Document of Compliance • Safety Management Certificate. • Minimum Safe Manning Certificate. • International Oil Pollution Prevention Certificate. • International Air Pollution Prevention (IAPP) Certificate. • Engine IAPP (EIAPP) for each engine and EIAPP supplements. • International Ship Security Certificate. • CSR. • International Anti-fouling System Certificate. • Lifeboat/tender Safety Equipment Certificate, as appropriate. • Exemption certificate, for example, PSSC. • International Energy Efficiency Certificate (IEEC). • High-speed Craft Safety Certificate, as applicable. • Permit to operate high-speed craft, as applicable.
B.1.c. Log Books, Plans, and Other Records	<hr/> <p>Verify the following:</p> <ul style="list-style-type: none"> • Garbage Management Plan. • Training logs/drill records per vessel/cruise line, company-specific SOLAS training manual. • Safety Management System (SMS) for designated person, procedures for reporting non-conformities, procedures for preparations, and response to emergency situations, vital equipment list, etc. • Decision support system for masters. For more information, see Chapter 5: Drills, Section A.2.b. Decision Support System on the Bridge.

NOTE:

The Decision Support System might be computer-based, but a printed copy must be located on the navigation bridge per Decision support system for masters of passenger ships, Chapter III, Regulation 29 of reference (d), SOLAS.

- Shipboard Oil Pollution Emergency Plan approval letter.
- Non-tank Vessel Response Plan approval letter.
- Ballast Water Management Plan and records.
- Vessel/USCG Search And Rescue (SAR) Plan.
- Bunker delivery notes/fuel sample aboard, as applicable.
- List of limitations per Safety of navigation, Chapter V of reference (d), SOLAS.
- Intact stability booklet.
- Damage Control Plans and booklets.
- Oil Record Book.
- Pre-arrival/pre-departure check per reference (m), Tests before entering or getting underway, 33 CFR § 164.25.
- Captain of the Port (COTP) waiver of reference (e), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series), 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 RO approval, but it must be aboard per Prevention of Air Pollution from Ships, Annex VI of reference (h), MARPOL. If performance of the IAPP intermediate/renewal survey is not complete for a vessel, then issuance of an IEEC might be delayed.

**B.2.
Equivalencies or
Alternative
Arrangements**

Verify any equivalencies or alternative arrangements to SOLAS requirements are approved by the flag state per:

- Alternate design and arrangements, Chapter II-1, Regulation 55.
- Alternate design and arrangements, Chapter II-2, Regulation 17.
- Alternate design and arrangements, Chapter III, Regulation 38.

Chapter 4: Bridge Safety and Navigation Equipment

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

In This Chapter This chapter contains the following sections:

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

Section A: Bridge Safety and Navigation Equipment

A.1. Introduction This section provides procedures to check bridge safety and navigation equipment per:

- Reference (d), SOLAS:
 - Radiocommunications, Chapter IV.
 - Safety of navigation, Chapter V.
- Reference (m), Tests before entering or getting underway, 33 CFR § 164.25.

NOTE:

Testing requirements associated with reference (m) might be reduced to weekly if the vessel has a COTP-specific waiver issued per reference (f), The United States Coast Guard Marine Safety Manual, Volume II: Materiel Inspection, COMDTINST M16000.7 (series).

NOTE:

Ensure a vessel deck officer is in attendance to facilitate this portion of the exam.

A.2. Voyage Data Recorder

Verify the proper installation of the voyage data recorder:

- 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 documents and data relevant to vessel maneuvering are available to watchstanders:

- 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.
- 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 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:
 - For vessel (float free).
 - For lifeboat (not float free).
- SAR locating devices located on each side of the bridge. Annually tested on FPVs, within three months before the expiration date of the Passenger Vessel Safety Certificate per Radiocommunications, Chapter IV of reference (d), SOLAS.
- International Maritime Satellite Organization (INMARSAT) installation/navigational telex and INMARSAT printers.

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

Verify the ECDIS has a backup arrangement. The backup can be either fully or partially electronic or on paper. Verify who is responsible for updating the ECDIS.

**A.5. Long Range
Identification
Tracking (LRIT)**

Verify the following:

- LRIT equipment or software upgrade.
- Equipment is approved via a conformance test report issued by the administration-approved application service provider.
- Documentation review for record of LRIT equipment and satisfactory testing.

**A.6. Automatic
Identification
System (AIS)**

Verify the following:

- The location of the AIS pilot plug near the pilot conning station and a three-prong, 120-volt, alternating current outlet.
- AIS is energized and displays the following screens:
 - Maritime mobile service identity (MMSI) IMO number.
 - Ship name.
 - Ship type.
 - Location of position fixing antenna on the ship.
 - Ship's draft.
 - Hazardous cargo (type).
 - Destination and estimated time of arrival.
 - Route plan.

NOTE:

The previous list includes items that are typically verified and is not intended to be complete.

**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^(R).
- Sailing directions.
- USCG Light List.

- Tide tables.
- Tidal current tables.
- Reference (n), COLREGs – International Regulations for Preventing Collisions at Sea^(C) 2005, Lloyd’s Register or International Marine Organization.
- Reference (o), United States Coast Guard Navigation Rules and Regulations Handbook (series).

NOTE:

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

A.7.a. Log Books

Verify the following:

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

A.8. Other Systems on the Bridge not Related to Navigation Safety

Verify operational status of:

- WTD status panel, for example, green light means closed.
- Fire door status panel, for example, green light means closed.
- Sprinkler/water mist control panel.
- Fire detection system.
- Bridge radio distress panel.
- Radio installation.
- Radio communication assignments during emergency situation.
- Emergency power source for radios.

A.9. Line Throwing Appliance/ Distress Visual Signals

Verify the following:

- A 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. Flares are stowed in watertight containers and are not expired.

A.10. Global Maritime Distress and Safety System

Verify the following:

- Certificate is valid and GMDSS-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 document.
 - A dedicated crew member is on station and has sent a test message.
-

**A.11. Bridge
Navigation
Watch Alarm
System
(BNWAS)**

Verify the following:

- 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.
-

Chapter 5: Drills

Introduction

This chapter provides an overview of emergency equipment associated with each survival system. It also discusses crew responsibilities during emergency drills.

As a best practice:

- Base questions on appropriate requirements outlined in international regulations, U.S. law, and the SMS. If responses to questions are vague, incomplete, or inconsistent, then refer to the vessel's SMS procedures and training documentation.
- Verify crew members can articulate current standards or shipboard procedures.
- Verify crew members can describe operating procedures and practices for the equipment or systems they are required to operate in the performance of their duties.

In This Chapter

This chapter contains the following sections:

Section	Title	Page
A	Alarms and Drills	5-2
B	Passenger Muster	5-12

Section A: Alarms and Drills

A.1. Installed Communications and Alarms

Verify the following:

- Emergency alarms and public address systems are clearly audible throughout the duration of drills.
- Communication between lifesaving appliances and the vessel.

A.2. Fire Drill

Verify the competency and proficiency of the vessel's firefighting procedures, training plan, and crew per reference (d), SOLAS.

NOTE:

When witnessing fire drills during COC exams, ensure the fire location selected properly evaluates the crew's response to a high consequence fire at least once during annual cycle per reference (p), Port State Control Guidance for Examination of Fixed CO2 Firefighting Systems and Conducting Fire Drills On board Cruise Ships During Scheduled Examinations, CG-CVC-2, July 2013.

A.2.a. Pre-drill

Discuss fire drill and abandon ship drill with vessel personnel. This discussion can be combined with the initial meeting with the master, depending on vessel's procedures. For more information, see [Chapter 2: Preparation and Pre-examination Procedures, Section B: Meet with the Master](#).

As a best practice:

- Coordinate with the master or vessel's safety officer to determine the best time and location in which to hold the fire drill:
 - Consider locations where the vessel is most likely to experience a fire.
 - Try to minimize disruptions to passenger operations while conducting the drill.
- Do not direct the master or the vessel's crew regarding where or how to conduct the drill.
- Allow the master or the safety officer to describe what takes place during the drill so you know what to expect while witnessing the drill. Evaluate the drill based on the vessel's emergency response procedures.

- Request access to the vessel's safety booklets and training guides for verification of the crew's knowledge.

A.2.b. 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 are passed up smoothly.
- General alarm is audible if drill procedure is to sound it.
- Fire control plans are available and used.
- Log entries are made.
- Emergency/test messages are sent/simulated.
- Presence of an assigned GMDSS operator with no other duties.

NOTE:

Verify the crew can quickly locate, identify, and explain the drill plan. Pay special attention to the actions of the master and his or her ability to maintain control of the emergency situation and to direct all aspects of the response.

A.2.c. 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.
- Crew uses firefighting methods to attack the simulated fire per the vessel's procedures.
- Crew members are able to effectively communicate with each other.

NOTE:

To prevent confusion and maintain the flow of the drill process, do not debrief local elements of the drill such as fire teams and scene leaders locally. Debrief the vessel master and other designated staff upon the completion of the drill.

A.2.d. Staging
Area

Verify the following:

- Proper command and control.
- Staging location is safe.

A.2.e. Medical
Team

Verify the following if the vessel has procedures regarding use of medical teams during fire drills:

- Teams are staged and ready to deploy.
- Necessary equipment is available.
- Team uses the appropriate route of egress.

A.2.f. Boundary
Cooling Team

Verify the following:

- All surrounding spaces, that is, all six sides surrounding space with fire, are protected/verified per vessel's procedures.
- Crew follows the vessel's procedure while evacuating cabins.

**A.3. Abandon
Ship Drill**

Verify crewmembers' ability to communicate and direct passengers to muster stations, maintain traffic control, and evacuate cabins:

- Crewmembers muster at appropriate abandon ship stations. The station bill is consulted to determine the duties and location of other crewmembers.
- Crewmembers don proper dress, for example, lifejackets/stairway guide identifiers per the vessel's procedures.
- Exempted crewmembers are accounted for as missing during the mustering process.
- Witness the crew start lifeboat engines for lifeboats on the inboard side. Ensure both inboard and outboard boats demonstrate the ability to provide both forward and astern way.

NOTE:

Per life-saving appliances and arrangements, Chapter III of reference (d), SOLAS, all lifeboats, including those with water-cooled engines, are required to be run weekly for three minutes to ensure proper operation of propulsion engine.

- Full hard-over rudder movement for inboard boats.
-

A.3.a. Passenger Assistance	<p>Verify stairway guide, cabin evacuation teams, and muster station personnel knowledge. Spot check knowledge, familiarity of duties, and passenger interaction through question and answer. As a best practice, use the vessel's safety booklet or training guide for reference, if available. Take passenger demographics into consideration when developing questions.</p>
A.3.a.(1). Passenger Ship Emergency Familiarization	<p>Verify the following per reference (c), STCW:</p> <ul style="list-style-type: none"> • <i>Contribute to the implementation of emergency plans, instructions, and procedures:</i> <ul style="list-style-type: none"> ➤ <i>General safety features aboard ship.</i> ➤ <i>Location of essential safety and emergency equipment, including life-saving appliances.</i> ➤ <i>Importance of personal conduct during an emergency.</i> ➤ <i>Restrictions on the use of elevators during emergencies.</i> • <i>Contribute to effective communication with passengers during an emergency:</i> <ul style="list-style-type: none"> ➤ <i>Communicate in the working language of the ship.</i> ➤ <i>Non-verbally communicate safety information.</i> ➤ <i>Understand one of the languages in which emergency announcements may be broadcast on the ship during emergency or drill.</i>
A.3.a.(2). Crowd Management	<p>Verify the following per reference (c):</p> <ul style="list-style-type: none"> • <i>Crewmembers' awareness implementation of shipboard emergency plans and procedures to muster and evacuate passengers:</i> <ul style="list-style-type: none"> ➤ <i>Muster lists and emergency instructions.</i> ➤ <i>Equipment used to assist passengers.</i> ➤ <i>Crowd management techniques.</i> • <i>Crewmembers' ability to assist passengers enroute to muster and embarkation stations, including:</i> <ul style="list-style-type: none"> ➤ <i>The ability to give clear, reassuring orders.</i>

- *The control of passengers in corridors, staircases, and passageways.*
- *Maintaining escape routes clear of obstructions.*
- *Methods available for evacuation and disembarking of disabled persons and persons needing special assistance.*
- *Search of accommodation spaces and public spaces.*
 - Per reference (q), Cruise Vessel Security and Safety Act (CVSSA) of 2010, *cabin access and key control.*
- Per reference (c) STCW, *Mustering procedures, including:*
 - *The importance of keeping order.*
 - *The ability to use procedures for reducing and avoiding panic.*
 - *The ability to use, where appropriate, passenger lists for evacuation counts.*
 - *The ability to ensure that the passengers are suitably clothed and have donned their lifejackets correctly.*

A.3.a.(3).
Communication

Verify the crew's ability to communicate with passengers during an emergency, taking into account:

- The language or languages appropriate to the principal nationalities of passengers carried on the particular route.
 - The likelihood that an ability to use an elementary English vocabulary for basic instructions can provide a means of communicating with a passenger in need of assistance.
 - The possible need to communicate during an emergency by alternative means, such as by demonstration, hand signals, calling attention to the location of instructions, muster stations, life-saving devices, or evacuation routes when oral communication is impractical.
 - The extent to which complete safety instructions have been provided to passengers in their native language or languages.
 - The languages in which emergency announcements might be broadcast during an emergency or drill to convey critical guidance to passengers and to facilitate crew members in assisting passengers.
-

A.3.a.(4). Life-saving Appliances	Verify the crew's ability to demonstrate the use of personal life-saving appliances to passengers.
A.3.a.(5). Embarkation Procedures	Verify embarkation and disembarking passengers with special attention to disabled persons and persons needing assistance.
A.3.b. Lifeboat Lowering and Operation	<p>Verify the lowering of all outboard lifeboats to embarkation deck and then the water.</p> <p>Witness the following:</p> <ul style="list-style-type: none"> • Release of all outboard lifeboats. • Crew's ability to maneuver lifeboats in the water, both ahead and astern.
A.3.c. Launch and Recovery of Rescue Boat	<p>Verify the following:</p> <ul style="list-style-type: none"> • Crew proficiency in launching. • Recovery time does not exceed more than five minutes in moderate sea conditions. • Ability to lower lifeboat using the self-lowering device, when fitted.
A.3.d. Survival Craft	<p>Verify crewmembers' knowledge of the lifeboat, life raft, marine evacuation system (MES), and rescue boat. Spot check knowledge, familiarity of duties, and passenger interaction through question and answer. As a best practice, use the vessel's safety booklet or training guide for reference, if available. Take passenger demographics into consideration when developing questions.</p>
A.4. Safety Familiarization	<p>Per reference (c), STCW:</p> <ul style="list-style-type: none"> • <i>Communicate with other persons on board on elementary safety matters and understand safety information symbols, signs, and alarm signals.</i> • <i>Know what to do if:</i> <ul style="list-style-type: none"> ➤ <i>A person falls overboard,</i> ➤ <i>Fire or smoke is detected, or</i> ➤ <i>If the fire or abandon ship alarm is sounded.</i>

- *Identify muster and embarkation stations and emergency escape routes.*
 - *Locate and don lifejackets.*
 - *Raise the alarm and have basic knowledge of the use of portable fire extinguishers.*
 - *Take immediate action upon encountering an accident or other medical emergency before seeking further medical assistance on board.*
 - *Close and open the fire, weathertight, and WTDs fitted in the particular ship other than those for hull openings.*
-

A.5. Basic Training

Per reference (c), STCW:

- *Personal survival techniques:*
 - *Types of life-saving appliances carried on the ship.*
 - *Equipment in survival craft.*
 - *Location of personal life-saving appliances.*
- *Principles concerning survival including:*
 - *Personal protective clothing and equipment.*
 - *Need to be ready for an emergency.*
 - *Actions to be taken when called to survival craft station.*
 - *Actions to be taken when required to abandon ship:*
 - *Descent devices.*
 - *Embarkation ladders.*
 - *Actions to be taken when in the water.*
 - *Actions to be taken when aboard a survival craft.*
 - *Main dangers to survivors.*

- *Personal safety and social responsibilities:*
 - *Knowledge of shipboard contingency plans for response emergencies.*
 - *Emergency signals and specific duties allocated to crew members in the muster list; muster stations; correct use of personal safety equipment.*
 - *Action to take on hearing emergency alarm signals.*
 - *Action to be taken on discovering potential emergency, including fire, collision, foundering, and ingress of water.*
 - *Knowledge of escape routes and internal communication and alarm systems.*
 - *Basic environmental protection procedures.*
-

A.5.a.
Proficiency in
Survival Craft and
Rescue Boats

Per reference (c), STCW:

- *Take charge of a survival craft or rescue boat during and after launch:*
 - *Interpret the markings on survival craft as to the number of persons they are intended to carry.*
 - *Give commands for launching and boarding survival craft, clearing the ship, and handling and disembarking persons from the craft:*
 - *Methods of launching into rough seas.*
 - *Dangers associated with use of on-load release devices.*
 - *Prepare and safely launch survival craft and clear the ship's side quickly:*
 - *Methods of starting and operating engine and its accessories together with the use of the fire extinguisher provided.*
 - *Safely recover survival craft and rescue boats.*

- *Manage survivors and survival craft after abandoning ship:*
 - *Row and steer a boat by compass.*
 - *Use of individual items of equipment of survival craft:*
 - *Use of painter, sea-anchor and all other equipment.*
 - *Apportionment of food and water.*
 - *Action taken to maximize detectability and location of survival craft.*
 - *Method of helicopter rescue.*
 - *Effects of hypothermia and its prevention.*
 - *Use of rescue boats and motor lifeboats for marshalling life rafts and rescue of survivors.*
 - *Rig devices to aid location.*
- *Use locating devices, including communication and signaling apparatus:*
 - *Use of portable radio equipment for survival craft.*
 - *Radio life-saving appliances, including emergency position-indicating radiobeacons and SAR transponders.*
- *Apply first aid to survivors:*
 - *Use of the first aid kit and resuscitation techniques.*
 - *Management of injured persons.*

A.5.b. Marine
Evacuation
System

Per reference (d), SOLAS:

Exercise of the procedures required for the deployment of marine evacuation system up to the point of immediately preceding actual deployment of the system.

**A.6. Post-drill
Tasks**

Verify all elements of the fire drill and abandon ship drills per reference (d), SOLAS. The USCG team:

- Discusses observations and drill results away from the vessel's crew.
 - Witnesses the crews' debrief.
 - Provides feedback to the master and crew, if requested.
-

Section B: Passenger Muster

B.1. Introduction Witness a muster of passengers as part of each annual and periodic exam per life-saving appliances and arrangements, Chapter III of reference (d), SOLAS.

NOTE: **Passenger musters are not required on vessels that do not embark passengers per reference (f), The United States Coast Guard Marine Safety Manual Volume II: Materiel Inspection, COMDTINST M16000.7 (series).**

NOTE: **Do not witness a passenger muster at a non-embarkation port.**

**B.2. Witness
Passenger
Muster**

Verify crew's ability to:

- Direct passengers to muster stations.
 - Provide instructions to passengers regarding the use of lifejackets.
 - Communicate actions to take in an emergency situation.
 - Properly account for passengers and crew members.
 - Maintain control of passengers and keep escape routes clear of obstruction.
-

Chapter 6: Walkthrough and Crew Proficiency Verification

Introduction

This chapter contains a comprehensive list of crew knowledge expectations for various systems and spaces on board. Periodic COC examinations include an assessment of these knowledge expectations through random questioning and observations during walkthrough.

As a best practice:

- Assess overall condition of space and associated systems for compliance with standards.
- Base questions on appropriate requirements outlined in international regulations, U.S. law and the SMS. If crew member responses to questions are vague or incomplete, then refer to the vessel's SMS procedures and training documentation.

In This Chapter

This chapter contains the following sections:

Section	Title	Page
A	Vessel Security Systems and the Cruise Vessel Security and Safety Act	6-2
B	Firefighting Systems	6-4
C	Structural Fire Protection Elements	6-5
D	Means of Escape and Signage	6-6
E	Unique Risk Spaces	6-7
F	Environmental Systems	6-9
G	Engineering Systems	6-12

Section A: Vessel Security Systems and the Cruise Vessel Security and Safety Act

A.1. Introduction Evaluate the vessel's security program. In most cases, the vessel's security officer is needed during this portion of the exam.

A.2. Conducting the Exam Verify crew's knowledge of the following:

- General security:
 - Access points (manned and monitored).
 - Screening procedures.
 - Security records (logs, drills, and exercises, etc).
 - Vessel security officer duties.
 - Approved vessel security plan.
 - Restricted areas, for example, locked or means of control.
 - Signage, for example, restricted areas, security level.
 - Reporting requirements.
- Reference (q), Cruise Vessel Security and Safety Act of 2010.
 - Medical:
 - Sexual assault evidence kits and the location/use of kits.
 - Anti-retroviral medications, the doses on board, and who has access to these medications.
- Sexual assault training and certificates.

- Security:
 - Crime scene preservation training.
 - Procedures for a victim of sexual assault, for example, a victim is provided a secure phone and computer with internet access,
 - Availability of embassy information.
 - Procedures for accessing passenger cabins.
 - Knowledge of reporting requirements.
-

Section B: Firefighting Systems

B.1. Introduction Verify crew proficiency regarding the vessel's firefighting systems and procedures per reference (p), Port State Control Guidance for Examination of Fixed CO₂ Firefighting Systems and Conducting Fire Drills On board Cruise Ships During Scheduled Examinations, CG-CVC-2, July 2013, PSC message.

B.2. Conducting the Exam Assess crew knowledge, skill, and familiarity of fire response procedures and equipment including:

- Awareness of vessel's fire detection systems:
 - Type and location of detectors.
 - Manual call points.
 - Automation for pre-action valves and extraction systems.
 - The vessel's fire suppression systems and portable fire extinguishers:
 - Location and type of portable fire extinguishers.
 - Fixed water spraying systems.
 - Fire main system.
 - Location for manual activation valves or switches for all local systems to include drenchers/deluge, and any other dry or wet manual activation points.
 - Crew's ability to recognize when a detection system has malfunctioned or gone into fault.
 - Bypass or disconnected elements of the system.
 - Automation for pre-exam valves and extraction systems.
-

Section C: Structural Fire Protection Elements

C.1. Introduction Assess the crew's knowledge and understanding of vessel's structural fire protection elements.

C.2. Conducting the Exam

Assess:

- Crew's awareness of vessel's structural fire protection and ability to:
 - Operate fire doors.
 - Identify items not allowed in certain spaces.
 - Recognize malfunctions with doors and other closing devices, for example, ventilation, smoke dampers, or devices within structural fire protection boundaries.
-

Section D: Means of Escape and Signage

D.1. Introduction

Examine and evaluate general walkthrough requirements pertaining to escape, signage, and space requirements.

D.2. Conducting the Exam

Examine and evaluate the following:

- Low location lighting (LLL) and photoluminescent tape. Verify:
 - The condition of LLL by having the crew activate the system.
 - The condition of photoluminescent tape.
 - Crew can explain the purpose of the LLL and photoluminescent tape and how to follow it in case of an emergency.
 - Escape signage:
 - Condition of signage.
 - Signage along means of escape is not missing in corridors, public spaces, and cabins.
 - Crew's understanding of the signage including direction of means of escape and the difference between primary and secondary means of escape.
 - Means of escape:
 - Condition of the means of escape in fire doors and stairway landings are free of obstructions.
 - Crew can explain how to maintain condition of means of escape.
 - Crew can explain when doors such as cabin doors can be kept open.
 - Balconies:
 - General condition of the balcony partition.
 - Crew can explain how and when to open the partitions.
-

Section E: Unique Risk Spaces

E.1. Introduction

Verify crewmembers' understanding of areas seen as having a unique risk due to the nature of their function or the materials located within them. Assess the crew's knowledge and familiarity of their duties through question and answer.

E.2. Conducting the Exam

Examine and evaluate the following:

- Refrigerated stores:
 - Awareness of fire suppression and detection systems including:
 - Automatic sprinklers systems; typically are dry pipe, pre-action, deluge, or antifreeze system.
 - Type of detection (smoke/heat).
- Ventilation and air conditioning space:
 - Awareness of space categorization.
- Garbage spaces:
 - Awareness of fire detection systems including the types of detectors used in cold storage.
 - Placarding requirements.
- Laundry spaces:
 - Awareness of fire suppression and detection systems including:
 - Different types of sprinkler heads.
 - Sprinkler systems installed in duct work.
 - Awareness of lint removal and maintenance procedure.
 - Awareness of dry cleaning chemical handling procedures.
- Flammable liquid and paint locker:
 - Awareness of fire suppression activation location.
 - Awareness of ventilation requirements.
 - Awareness of electrical installation requirements.

- Flammable liquid and gas storage cabinets:
 - Awareness of daily use designation.
 - Awareness of type approval.
-

Section F: Environmental Systems

F.1. Introduction Examine and evaluate environmental system requirements. Choose a waste stream that was not examined in the previous USCG exam.

Per reference (k), Environmental Inspection Checklist; Addendum to Foreign Passenger Vessel Examination Book, CG-840, NVIC 04-04, COMDTPUB P16700.4 (series):

Marine inspectors should question the ship staff on procedures and normal operations, and compare the answer to what is written in procedures and manuals. For each waste stream, persons with specific responsibilities should be questioned at each step in the waste handling process. Inspectors should require being shown specific process step by the person responsible for that step. Inspectors should ask extensive questions regarding availability of documents and supporting material relevant to the individual performing the specific activity in the waste handling process. Other questions should focus upon training provided and reporting procedures when problems with waste management processes are identified.

F.2. Conducting the Exam

Meet with the vessel's environmental officer (EO).

Complete Section A: Certificates/Equipment Data/Records Information.

Complete Section B: SMS Environmental Procedures. Verify the EO knows the procedures for:

- Maintaining current pollution prevention records.

NOTE:

In order to fully examine water pollution prevention issues, use the job aid contained in reference (r), Guidelines for 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, CG-543 Policy Letter 11-01, Feb. 11, 2011.

- Spot check the oil record book.
- Correct emergency phone number for local authorities.
- Where to install MARPOL placards.
- Updated non-hazardous waste disposal documentation.

- Updated hazardous waste disposal documentation.
- Recycling procedures.

Complete Section C: Select a Stream, and evaluate crew proficiency:

- Oil pollution handling waste stream:
 - EO/crewmembers are familiar with the OWS.
 - Responsible crew member knows when it is allowable to operate the OWS.
 - Crew members are familiar with oil transfer procedures.
 - Responsible crew members know when/how to operate the incinerator.
- Gray water waste stream:
 - The EO and crewmembers can describe sources of gray water.
 - Crew can describe prohibited sources.
 - Crew can describe procedures for prevention of hazardous waste into the gray water system.
- Black water/sewage waste stream:
 - Crew can describe the sources.
 - Crew can describe the operations and treatment of black water.
 - Crew can describe the regulatory requirements of allowable discharge of black water.
- Hazardous waste stream:
 - Crew can describe procedures for handling and stowage of hazardous waste.
 - EO can provide proof of training for hazardous waste handling.
 - Crew has ready access to spill control and decontamination equipment and can describe its usage.

- Non-hazardous waste stream:
 - Crew separates plastics from other types of garbage in accordance with the vessel's SMS and recycling plan.
 - Crew is familiar with essential shipboard garbage handling procedures.
 - Personal protective equipment is available, functioning, and in place.
-

Section G: Engineering Systems

G.1. Introduction Verify crewmembers' understanding of engineering systems and procedures. Assess knowledge and familiarity of duties through question and answer.

G.2. Conducting the Exam

Examine and evaluate the following:

- Emergency power and lighting:
 - Awareness of emergency generator starting requirements including:
 - Sources of starting energy.
 - Automatic procedures.
 - Awareness of emergency services required under emergency power.
 - Awareness of emergency battery storage requirements.
- Steering systems:
 - Awareness of steering test requirements including:
 - Alarms tested.
 - Communication requirements.
 - Emergency steering system.
 - Secondary bridge steering arrangements, if equipped.
- Remote shutdowns:
 - Awareness of shutdown locations.
- Fire pumps and sprinkler systems.
 - Awareness of operation of fire and sprinkler pumps including:
 - Authority to activate.
 - Automatic operations.
 - Cross-connect locations.
 - Testing requirements.

- Local application fire suppression systems:
 - Awareness of spaces/equipment protected.
 - Awareness of activation methods including:
 - Automatic.
 - Local.
 - Remote.
 - Awareness of section valve testing requirements.
 - Stability systems:
 - Awareness of WTD operations including:
 - Locations where WTDs can be operated.
 - Doors allowed to be left open during navigation.
 - Awareness of cross-flooding countermeasures.
 - Awareness of flooding detection systems testing procedures.
 - Awareness of damage control procedures.
-

This page intentionally left blank.

Chapter 7: Post-examination Procedures

Introduction This chapter discusses post-examination procedures.

In This Chapter This chapter contains the following sections:

Section	Title	Page
A	Post-examination Procedures	7-2

Section A: Post-examination Procedures

A.1. Introduction 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 Master

Complete the following:

- USCG Port State Control Report of Inspection, CG5437A (Form A).
- USCG Port State Control Report of Inspection, CG5437B (Form B), if applicable.

Discuss findings, observations, and any outstanding deficiencies with the vessel master.

NOTE:

If the debrief is conducted before the passenger muster, then remind the 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. If there are concerns with the muster, then the USCG returns to the bridge to discuss findings with the master which might include issuing an additional CG5437B (Form B) requirement.

- 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.
- Conduct procedures for accepting equivalent levels of safety when a vessel is issued a deficiency to be cleared prior to departure:
 - Proposal by vessel.
 - Approval of the vessel's proposal by the flag state administration or the responsible officer acting on behalf of the administration.
 - Acceptance by Officer in Charge, Marine Inspection.

- Communicate with other USCG units when:
 - Vessel cannot operate as designed.
 - There could be COTP safety requirements for navigating in port waterways.
 - Outstanding deficiencies that need to be cleared within a designated timeframe.

**A.3. MISLE
Activity
Completion and
Data Entry**

Complete MISLE activity per reference (s), Marine Information for Safety and Law Enforcement (MISLE) User Guide Handbook (series), USCG Operations Systems Center and Mission Management Instructions (MMS) published by CVC.

Add data to the Special Notes section for unusual circumstances, for example, vessel modifications or other design features affecting vital systems or maneuvering characteristics.

**A.4. Appeals of
USCG Decisions**

If a vessel owner or operator does not agree with a USCG decision, then a formal appeal of the decision can be made per reference (t), Rights of Appeal, 46 CFR, Part 1, Subpart 1.03.

This page intentionally left blank.

Appendix A: Acronyms

AIS	Automatic Identification System.
BNWAS	Bridge Navigation Watch Alarm System.
CFR	Code of Federal Regulations.
CG-543	USCG Office of Vessel Activities.
CG-CVC-2	USCG Foreign & Offshore Compliance Division.
CGTTP	Coast Guard tactics, techniques, and procedures.
CO2	Carbon dioxide.
COC	Certificate of Compliance.
COLREGs	International Regulations for Preventing Collisions at Sea.
COMDT	Commandant.
COMDTINST	Commandant Instruction.
COMDTPUB	Commandant Publication.
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.

EIAPP	Engine international air pollution prevention.
EO	Environmental officer.
EPA	Environmental Protection Agency.
FORCECOM	Force Readiness Command.
FC-T	FORCECOM Training Division.
FPV	Foreign passenger vessel.
FPVE	Foreign passenger vessel examiner.
GMDSS	Global Maritime Distress and Safety System.
IAPP	International air pollution prevention.
IEEC	International Energy Efficiency Certificate.
IMO	International Maritime Organization.
INMARSAT	International Maritime Satellite Organization.
ISM Code	International Safety Management Code.
LLL	Low location lighting.
LRIT	Long range identification tracking.
MARPOL	International Convention for the Prevention of Pollution from Ships.
MES	Marine evacuation system.
MISLE	Marine Information for Safety and Law Enforcement.
MMSI	Maritime mobile service identity.

MSC	IMO Maritime Safety Committee.
NVIC	Navigation and Vessel Inspection Circular.
OWS	Oily water separator.
PSC	Port state control.
PSSC	Passenger Ship Safety Certificate.
RO	Recognized organization.
RO/RO	Roll-on/roll-off.
SAR	Search and rescue.
SEEMP	Shipboard energy efficiency management plan.
SOLAS	Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988.
SMS	Safety management system.
STCW	Standard of Training Certification and Watchkeeping.
TTP	Tactics, techniques, and procedures.
U.S.	United States.
USCG	United States Coast Guard.
VGP	Vessel general permit.
WTD	Watertight door.

