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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 03-08

Subj: CONTROL VERIFICATION EXAMINATIONS (CVEs) OF FOREIGN PASSENGER VESSELS

Ref: (a) Title 46, U.S.C. Section 3505, "Prevention of Departure"
(b) Navigation and Vessel Inspection Circular (NVIC) 06-03, Ch-1, "Coast Guard Port State Control Targeting and Boarding Policy for Vessel Security and Safety"
(c) Title 33, U.S.C. Section 3303, "Reciprocity for Foreign Vessels"

1. PURPOSE. This Circular provides guidance for plan review and examination of foreign passenger vessels that embark passengers in U. S. ports or call at U.S. ports with U. S. citizens as passengers.

2. ACTION. Area, district and sector commanders, commanders of Maintenance and Logistics Commands, commanding officers of Integrated Support Commands, commanding officers of headquarters units, assistant commandants for directorates, Judge Advocate General and special staff elements at Headquarters shall ensure compliance with the provisions of this Instruction. Internet release authorized.

3. DIRECTIVES AFFECTED. This NVIC supersedes and cancels NVIC 1-93.

4. BACKGROUND. Inspection of foreign flag passenger vessels began due to Congressional interest in the implementation of the 1966 Fire Safety Amendments to the International Convention for the Safety of Life at Sea (SOLAS 60). On November 2, 1968, Public Law 89-777 (R.S. 4400(c); 46 U.S.C. 362(c)), Fire Safety Standards for Foreign and Domestic Passenger Vessels came into effect and required the U.S. Coast Guard verify that foreign passenger vessels complied with the 1966 Fire Safety Amendments. Soon thereafter, the Coast Guard promulgated NVIC 2-68 which provided implementing guidance on how to conduct a Control Verification Examination (CVE), specifying that "this verification may necessitate a degree of plan review, removal of panels, ceilings, etc., in addition to the testing of construction

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materials". On August 26, 1983, Public Law 98-89 (97 Stat. 520; 46 U.S.C. 3505) provided the additional authority for the Coast Guard to verify that foreign flag passenger vessels that embark passengers in U. S. ports comply with SOLAS Convention requirements. In 1985, the Coast Guard promulgated NVIC 1-85, which expanded the CVE program by offering pre-arrival plan review for foreign-flag passenger vessels. The goal was to minimize delays for vessels that operate for the first time from a U. S. port. In 1993, the Coast Guard promulgated NVIC 1-93, which further expanded examination requirements and provided updated guidelines for CVE procedures of foreign passenger vessels. The control verification program has continued to evolve, making updated guidance for plan review and control verification examinations necessary for foreign passenger vessels operating out of U.S. ports. Such changes include tests of marine evacuation systems, revised pollution prevention examination procedures, International Ship and Port Facility Security (ISPS) compliance examinations, and revised guidance on passenger launches. In August 2004, Congress revised reference (a) to extend its applicability to "a foreign vessel carrying a citizen of the United States as a passenger". This law permits the Secretary to prevent a passenger vessel carrying U.S. citizen passengers from departing a U.S. port, even if passengers did not embark the vessel at the port, if the Secretary finds that the vessel does not comply with the standards stated in SOLAS.

5. DISCUSSION. Originally, the CVE Program established guidelines for plan review and vessel examination procedures of foreign passenger vessels that embark passengers from a U.S. port. Reference (a) further requires the Coast Guard to determine whether passenger vessels that embark U.S. citizens as passengers at a foreign port and make subsequent port calls to the United States, without embarking passengers, comply with the standards stated in the SOLAS Convention. With this in mind, the objective of this NVIC is to provide owners and field units with up-to-date information and guidance necessary to better prepare new and existing foreign passenger vessels for the control verification process. This NVIC provides guidance including detailed recommendations for initial control verification examination (ICVE) and plan review of vessels coming to the United States for the first time; follow-on annual CVEs; periodic CVEs for vessels that hold a valid Certificate of Compliance; and strategy to implement reference (a). The enhanced guidance promotes consistent enforcement of existing standards and minimized delays for vessel owners.

6. IMPLEMENTATION.

   a. Foreign vessels with U.S. citizens as passengers making U.S. port calls. In order to implement the revised 46 U.S.C. 3505, the Coast Guard is expanding the CVE program to include foreign passenger vessels that call on U. S. ports with U. S. citizens as passengers. Previously, the CVE Program only covered foreign passenger vessels that embarked passengers at a U. S. port. The program changes to implement reference (a) include:

      (1) Targeting. The Captain of the Port (COTP) or Officer-in-Charge, Marine Inspection (OCMI) will review notice of arrival information to target foreign passenger vessels that do not hold valid Certificates of Compliance and are making port calls with U.S. citizen passengers onboard. The COTP or OCMI will target such vessels for port state control and outreach to begin the process to enroll these vessels into the CVE Program.

      (2) Outreach. To implement reference (a), the Coast Guard should provide expectations to owner(s) of vessels that make port calls in the United States with U.S. citizen passengers embarked at a foreign port. The Coast Guard cannot accurately establish the

population of vessels affected by reference (a). Nevertheless, the Coast Guard will inform the industry of the reference (a) requirements and the implementing policy. The Coast Guard will do this from the Headquarters level through broad outreach to the industry by publishing this NVIC on the internet and through contact with industry groups such as the Cruise Lines International Association (CLIA). Field units will provide detailed guidance to vessels targeted for outreach as they arrive in the United States by: informing the vessel of the revised law; providing the vessel master with a copy of this NVIC; explaining plan review submission requirements; and explaining ICVE requirements. Enclosure (1) provides guidance on these latter two issues. At this first arrival, the Coast Guard will also inform the vessel's owner, operator, master, or agent in writing that they must take timely action to bring the vessel into compliance with this NVIC within 6 months after the vessel's first arrival.

(3) Transitional examinations. At the first arrival of a passenger vessel targeted for enrollment in the CVE program as required by reference (a), the Coast Guard will perform a port state control (PSC) examination of the vessel in accordance with the requirements of reference (b). If the vessel does not comply with international standards, the Coast Guard will take control action as appropriate in accordance with enclosure (4) to reference (b). At each return voyage of the vessel from a foreign port, when it has U. S. passengers embarked at a foreign port, the Coast Guard will perform a follow-on PSC examination and control, as appropriate, until the vessel earns a Certificate of Compliance. The OCMI may stand down from this requirement if there were no deficiencies noted during the previous Coast Guard PSC examination. At no time after the transition period will the Coast Guard permit the vessel to depart a U.S. port before it earns a Certificate of Compliance. The Coast Guard will end this transitional period one year following publication of this NVIC.

(4) Initial Certificate of Compliance. The vessel must obtain a Certificate of Compliance within six months of its first arrival or become subject to prevention of departure as authorized by 46 U.S.C. 3505. A vessel earns its initial Certificate of Compliance by successfully completing the ICVE process. Part A of Enclosure (1) provides guidance and procedures that apply to the ICVE process. Enclosure (2) provides additional guidance related to an overseas ICVE process, and Enclosure (3) provides specific guidance for vessel owners related to tests and inspections the Coast Guard performs during the ICVE.

(5) Desired End State. Within two years following promulgation of this NVIC, the Coast Guard will expect all foreign-flagged passenger vessels that embark passengers in the United States or make port calls in the United States with U.S. citizens as passengers to hold Certificates of Compliance. The Coast Guard will prevent such vessels that fail to meet international standards, as determined by the CVE program, from departing port with U.S. citizens onboard.

b. Vessels that embark passengers at U. S. ports. These vessels must hold a valid Certificate of Compliance before they may depart a U.S. port with passengers embarked at that port. Enclosures (1), (2), and (3) provide guidance and procedures that apply to initial control verification, annual control verification, and periodic control verification processes.

c. Exceptions. The Coast Guard will not require foreign passenger vessels calling at U.S. ports, which do not embark passengers and do not carry U.S. citizens as passengers, to participate in the ICVE process. The Coast Guard will target and examine such a vessel for PSC, security boarding, and/or a MTSA/ISPS Compliance examination to verify compliance with U.S. laws and international treaties in accordance with current policies.

d. Overseas ICVE. For initial examinations of new or existing vessels or examinations of existing vessels subject to major conversion, vessel owners may request an examination at a foreign port. In such instances, owners must reimburse the Coast Guard for travel and subsistence expenses. It is important to note that overseas examinations are contingent upon the availability of Coast Guard resources. Because of this, close coordination between inspection offices, the Coast Guard Marine Safety Center, shipyards, vessel owners, and classification societies is encouraged in the strongest terms to ensure efficient use of Coast Guard vessel examination personnel. The Coast Guard will not perform overseas examinations with the vessel underway.

e. Process to facilitate an ICVE. To facilitate the initial control verification process, the Coast Guard recommends that for a foreign passenger vessel participating in the process for the first time, the ICVE should begin at an overseas port while the vessel is out of operation or under construction. Such early examination allows the Coast Guard to identify and resolve problems before the vessel arrives at the first U.S. port. For new vessels and vessels under major conversion or modification, the Coast Guard may conduct three separate ICVE-related examinations during the various stages of construction or modification at the request of the owner. The first recommended examination is a structural fire protection examination (SFP), which includes examination of items such as main vertical zone bulkhead boundaries, draft stops, insulation, space categorization and other related structural fire protection features while they are exposed. The second examination is an assessment examination. The Coast Guard schedules this examination for new ships and ships under major construction one week before the ICVE to determine whether the vessel is ready to conduct an ICVE. Finally, the ICVE is the last examination conducted. At this examination, the Coast Guard examines and tests systems required by SOLAS and applicable U. S. federal regulations.

f. Appeals. If an owner or operator of a vessel does not agree with a Coast Guard decision resulting from plan review or from examination in accordance with this NVIC, a formal appeal of that decision may be made in accordance with the procedures contained in 46 CFR 1.03. Commandant (CG-543) will serve as the point of contact for questions related to the procedures and guidance contained herein.

7. DISCLAIMER. While the guidance contained in this document may assist the industry, the public, the USCG, and other Federal and State regulators in applying statutory and regulatory requirements, this guidance is not a substitute for applicable legal requirements, nor is it in itself a rule. Thus, this policy does not intend to nor does it impose legally binding requirements on any party, the USCG, other government agencies, and States, or the regulated community.

8. CHANGES. This NVIC is currently available on the web at www.uscg.mil/hq/g-m/nvic/index00.htm. The Coast Guard will issue changes to this circular as necessary. The

Coast Guard will issue time-sensitive amendments as "urgent change" messages by ALCOAST and will publish these on the web for the benefit of industry pending their inclusion to the next change to this circular. Interested parties may suggest improvements to this circular in writing to the Office of Vessel Activities, Commandant (CG-543).

9. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. None.

10. FORMS/REPORTS. The forms called for in this Circular are available in USCG Electronic Forms on the Standard Workstation or on the Internet: http://www.uscg.mil/ccs/cit/cim/forms1/welcome.htm or Intranet: http://cgweb.comdt.uscg.mil/CGFORMS/Welcome.htm.

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Safety, Security and Stewardship

Encl: (1) Plan Review and Examination Guidance for Foreign Passenger Vessels
(2) Overseas Examination Guidance for Foreign Passenger Vessels
(3) Owner's Guide for Conducting United States Coast Guard Initial Control Verification Examination

PLAN REVIEW AND EXAMINATION GUIDANCE FOR FOREIGN PASSENGER VESSELS

This enclosure details guidance and procedures for plan review and vessel examination of foreign flag passenger vessels.

A. Initial Control Verification Examination (ICVE)

1. Application
2. Exceptions
3. Definitions
4. ICVE Process Steps
5. Concept Review
6. Plan Review
7. SFP Examination
8. Preparing for the Initial Examination
9. Initial Examination
10. Expanded Examination
11. Completion of Examination

B. Annual Control Verification

1. Application
2. Definitions
3. Preparing for the Annual Examination
4. Annual Examination
5. Completion of Examination

C. Periodic Control Verification

1. General
2. Missed Examinations
3. Definitions
4. Preparing for the Periodic Examination
5. Periodic Examination
6. Completion of the Examination

A. Initial Control Verification Examination (ICVE)

The Coast Guard requires foreign flag passenger ships arriving at the United States that embark passengers for the first time or make an initial U.S. port call while carrying U.S. citizens as passengers to participate in the ICVE process. The Coast Guard also requires such vessels that have returned to U.S. service after a prolonged absence from the United States to participate in the ICVE Process.

1. Application. The Coast Guard performs plan review and inspection during the ICVE process for certain foreign passenger vessels in order to meet the obligations specified in Title 46, U. S. Code Section 3505 and SOLAS, Chapter I, Regulation 19. The Coast Guard shall perform ICVE-related plan review and inspection for the following vessels:
   a. New or existing vessels that intend to embark passengers for the first time from a U.S. port.
   b. New or existing vessels that carry U.S. citizens as passengers that make port calls at U.S. ports.
   c. Existing vessels that have undergone a modification or alteration of a "major character" as defined by SOLAS 74.
   d. Existing vessels that have undergone a modification or alteration, or a change of use or categorization of existing spaces, that affects required structural fire protection or means of egress shall participate, in limited fashion, in the ICVE process. In such cases, the Coast Guard will limit ICVE plan review and related examination to the new arrangements, and will examine existing arrangements as described by Part B of this enclosure.
   e. Existing vessels that return to service in the United States more than one year after the annual Certificate of Compliance (CG-3585) expired and more than 5 years since the Coast Guard Marine Safety Center (MSC) completed the vessel plan review. The vessel owner or operator shall make a complete submission of all modifications or alterations made to the vessel since the initial Coast Guard plan review. The Coast Guard will require ICVE plan review and inspection for any modification or alteration made to the vessel that materially alters structural fire protection or means of egress and will examine existing arrangements as described by Part B of this enclosure.
   f. Existing vessels selected by Commandant (CG-543) for this process.
2. Exceptions. The Coast Guard will examine vessels which return to service after the annual Certificate of Compliance (CG-3585) has expired, but do not meet the application requirements stated above, in accordance with Part B of this enclosure for an annual CVE. The Coast Guard will not require foreign passenger vessels calling at U.S. ports, which do not embark passengers and do not carry U.S. citizens as passengers, to participate in the ICVE process. The Coast Guard will target and examine such vessels for port state control, security boarding, and/or a MTSA/ISPS Compliance examination to check for compliance with U.S. laws and international treaties in accordance with current policies.

3. Definitions.

   a. Concept Review. Concept review is a required step during the early design phase of a new vessel for discussion of interpretative issues, any new design or arrangement not previously seen on any other vessel, or incorporation of alternative design arrangements as allowed by SOLAS Chapter II-2, Regulation 17 (Part F, 2000 Amendments). The MSC performs concept review for specific arrangements when requested by the submitter or owner.

   b. Embarking Passengers. Embarking passengers is defined as the ship taking on new passengers, including U.S. or foreign citizens, in a U.S. port, who did not previously board the vessel in another country. This term does not include boarding nonpaying guests or visitors who are neither berthing in overnight accommodations nor getting underway with the vessel.

   c. Structural Fire Protection (SFP) Examination. The SFP examination is an inspection of the structural fire protection arrangements and details for compliance with SOLAS requirements and the vessel's approved structural fire protection plan. The examination also concentrates on the workmanship of SFP installation. The Coast Guard performs this examination with vessel joiner panels removed or during the construction process.

   d. New Vessel. A new vessel is as defined in the current edition of SOLAS.

   e. Existing Vessel. An existing vessel is as defined in the current edition of SOLAS.

4. ICVE Process Steps. The ICVE process consists of the following steps, listed in the order that they should occur:

   a. Concept review, when necessary, for vessels in the design phase;

   b. Plan review for the final "as built" condition of the vessel;

   c. SFP examination (note this step may be part of an initial control verification and is not limited to new vessels and major conversion vessels);

   d. Preparation for the ICVE; and

   e. The ICVE.

5. Concept Review. The Coast Guard expects concept review for novel ship arrangements or unique designs incorporating design features that involve interpretations of SOLAS rendered by the vessel's classification society or flag Administration, equivalencies, or exemptions from existing regulations. Unique designs include alternative designs and arrangements addressed by SOLAS Regulation II-2/17 (2000). The MSC provides this review to address specific design concepts or ideas that could create delays if discovered later during the normal course of plan review. Concept review does not result in approval of the conceptual drawings, but results in acceptance of specific conceptual details. The submitter may then integrate these conceptual details into final design drawings and submit these as part of the plan review process. The MSC encourages submitters to request concept review as early as possible during the vessel design process. Early review of such

conceptual details prevents delays during follow-on plan review and vessel examination.

a. For additional information concerning submittals, correspondence, and meetings related to concept review, contact the USCG Marine Safety Center, Attention: Major Vessel Branch Chief (telephone 202-475-3401).

b. The submitter may request a meeting with MSC to present, clarify, and discuss conceptual details. MSC requires at least a thirty day notice before the proposed meeting date and the request must include an agenda for the meeting. Additionally, the submitter should provide the MSC with arrangement plans and documentation to support the meeting agenda. Please note the MSC will not perform tabletop plan review during concept review meetings. Similarly, please note that MSC does not make decisions relating to conceptual issues during concept review meetings. The submitter may prepare meeting minutes and forward a copy of the meeting minutes to the MSC for review. The MSC will review these meeting minutes and provide timely commentary to the submitter, in writing.

c. For alternative designs and arrangements addressed by SOLAS Regulation II-2/17 (2000), the Coast Guard is an interested party. Because of the increased engineering rigor associated with alternate design and arrangements, the submitter must include the MSC in all communications related to alternate design and arrangements as provided in Section 1.4 of the Annex to the IMO Maritime Safety Committee Circular 1002.

6. Plan Review. The submitter shall submit at least three sets of final drawings and documentation bearing the approval stamp of the flag Administration or Recognized Organization (RO) to the MSC for review. The submitter shall make these submissions as early as possible, to allow MSC to complete plan review before the structural fire protection examination and the ICVE. The plans must reflect the "as-built" condition of the vessel. The plans should clearly indicate areas of the vessel that the submitter modified or altered during design. Submitters shall submit plans for each vessel in a vessel class. The plans should clearly indicate the SOLAS Convention and amendments applicable to each area. Plans must be legible, contain a legend or key written in the English language, and contain a scale to allow reviewers to determine dimensions. The submitter should include supporting information for any special considerations approved by the flag Administration such as equivalencies or exemptions. After satisfactory review, the MSC stamps and dates acceptable plans as "Reviewed" and provides a plan review letter to the submitter. For additional information on plan submittal, visit the MSC website by: going to http://homeport.uscg.mil; select “Vessel Standards” from the list on the left side of the page; and select “Marine Safety Center” from the middle of the page. The submitter should submit the following information and plans for review by the MSC:

a. General information:

(1) Name of vessel (including former name(s) for existing vessels);

(2) IMO Number;

(3) Building contract date, keel laying date, delivery date;

(4) Country of registry;

(5) Classification Society;

(6) Total numbers of passengers and crew;

(7) Gross tonnage, length, breadth, depth, and speed;

(8) First U.S. port where passengers are expected to be embarked and the approximate date;

(9) Fire Protection Method and SOLAS Convention to which the vessel was built, including amendments; and

(10) Major modification information to include: dates, locations, and SOLAS Convention to which the vessel was modified.

b. Structural fire protection plans of bulkheads and decks. These shall include:

(1) Legend detailing bulkhead and deck construction, including insulation values. Symbols should be distinguishable and in accordance with International Maritime Organization (IMO) Resolution A.654(16) for ships constructed before 1 January 2004. For ships constructed on or after 1 January 2004, the symbols should be in accordance with IMO Res. A.952(23) or ISO 17631:2002.

(2) Identification of each space by name and numerical fire risk category per SOLAS Regulation II-2/26 or II-2/9 (2000 Amendments), as applicable. For spaces having multiple uses and fire risk classifications, or when the fire risk classification for a space is in doubt, the submitter shall provide explanations regarding the use of the space, expected fire load in the space, and whether hazardous materials are stored in the space, to expedite review.

(3) Location of all main vertical zone boundaries, fire screen doors, and draft stops (the submitter may show this by providing the fire control plan required by SOLAS II-2/15.2.4).

c. Fire barrier penetration schedule that details approved methods for penetrating bulkheads and decks with piping, cables, ventilation ducts, etc. Include any Heating, Ventilation, Air Conditioning (HVAC) plans showing fire boundary penetration details and damper details.

d. Means of escape diagram should indicate primary and secondary exits from each area, maximum occupancy of public spaces (occupant load), escape routes, and assembly stations. In addition, include means of escape calculations in accordance with Chapter 13 of the International Code for Fire Safety Systems.

e. Preliminary stability calculations if requested by MSC. Submit these calculations early in the design stage as this will assist with design planning. MSC will conduct a cursory oversight review of assumptions accepted by the

Administration. In particular, MSC will review documentation associated with cross-flooding, down-flooding, and any equalization measures accepted by the Administration.

f. In cases where watertight doors are permitted by the Administration to remain open during navigation, the Administration's analysis or report documenting both the need for the watertight door to remain open and impact of the open door on the ship's operations and survivability. SOLAS regulation II-1/15.9.3 permits "certain watertight doors to remain open during navigation if considered absolutely necessary; that is, being open is essential to the safe and effective operation of the ship's machinery or to permit passengers normally unrestricted access throughout the passenger area." This regulation further states "Such determination shall be made by the Administration only after careful consideration of the impact on ship operations and survivability." If permitted to remain open, watertight doors shall be ready at all times for immediate closure. MSC will conduct a cursory review of any Administration documentation associated with watertight doors that they permit to remain open during navigation.

g. Marine Evacuation System (MES) installation drawings and supporting documentation showing that the MES remains operational in its designed manner under unfavorable conditions of trim and list. Unfavorable conditions of trim and list are a trim of up to 10° and list of up to 20° either way. Alternatively, the submitter may provide documentation demonstrating the MES remains operable in the worst case list and trim conditions, taking into account sinkage.

h. Vessel owners planning to change vessel registry to the U.S. flag should note the level of detail required of the plan review for a U.S. flag vessel is substantially greater than that required for an ICVE. Owners should refer to current Coast Guard guidance for reflagging vessels, specifically Navigation and Vessel Inspection Circular 10-81.

7. SFP Examination. Coast Guard inspectors will normally visit the ship during construction or lay-up period to examine structural fire protection not readily accessible on an operating vessel. For vessels under construction or undergoing extensive modifications, the Coast Guard will conduct the SFP examination after plan review, but several months before the ICVE. For vessels already in operation, the Coast Guard may perform the SFP examination during the ICVE. Close coordination between the inspection team and the shipyard should minimize any disruption to ongoing work. The best time to perform the SFP examination is when one-half of a vessel's SFP is complete (and approved by the Administration or RO) with the remaining SFP at an intermediate stage of construction. The MSC will provide a list of recommended inspection points. The Coast Guard marine inspectors may vary the scope of the SFP examination as necessary to evaluate the yard and RO control procedures in place to ensure the construction complies with the flag approved plans. In areas where visual inspection is limited (primarily on existing vessels), the inspector may require removal of certain joiner panels exposing structural fire protection installations for examination. Typically, a SFP examination will take 2 days and involves an inspection team comprised of two Coast Guard marine inspectors. The Coast Guard may require additional inspectors for larger passenger

ships. The Coast Guard expects the representatives from the Administration or RO, with structural fire protection expertise, to attend the SFP examination. In general, SFP examinations include:

a. Fire Insulation. The Coast Guard spot checks workmanship, thickness, and heat bridges, cable, pipe and duct penetrations, windows, and fire doors throughout the vessel. In addition, the Coast Guard pays particular attention to the following areas:

(1) MVZ boundaries;
(2) Muster stations and category 4 escape routes (sprinkler placement for glass protection);
(3) Escape stairs;
(4) Vessel side-shell adjacent to lifeboat and life raft deployment routes;
(5) Galleys, laundry, pantries, and control stations;
(6) Lifts and trunks;
(7) Main machinery space and casing;
(8) Corridors in cabin areas/continuous ceilings; and
(9) Fire dampers.

b. Enclosed Escape Stairways. The inspectors should examine enclosed protected stairways. The inspectors should examine the route of escape, structural fire protection installation, examine stairway ventilation per SOLAS II-2/32.1.5 or II-2/9.7.4 (2000 Amendments), as applicable, examine bulkhead penetrations, and verify that stairway doors do not open to unauthorized spaces.

c. Escape Routes. The inspectors should look for the presence of dead-end corridors and verify two means of escape where required. The inspectors should also examine the effectiveness of low-level lighting or photo-luminescent strip indicators provided along escape routes if fitted at the time of SFP examination.

d. Fire Boundary Penetrations. The inspectors should examine main vertical zone and escape stairway penetrations. The inspectors should verify that "A" Class divisions are maintained at penetrations for electrical cables, pipes, trunks, ducts, etc. and that corridor bulkheads extend from deck to deck unless they meet the exemptions stated in SOLAS Regulation II-2/25.2 or II-2/9.2.2.2.2 (2000 Amendments), as applicable. The inspectors should require removal of overhead and bulkhead panels to spot check division penetrations. The designer and owner’s representatives should coordinate panel removals to minimize delays.

e. Fire and Smoke Damper and Ventilation Arrangements. The inspectors should examine ventilation system fire and smoke dampers for controls and proper operation. Additionally, the inspectors should examine construction of ventilation ducting and bulkhead penetrations and filters, especially in the laundries. The owner’s representatives should remove overhead panels, especially at main vertical zone bulkhead intersections, as directed by the inspectors to facilitate the examination.

f. Draft Stops. The inspectors should examine horizontal and vertical draft stops for workmanship and location (at not more than 14 meter intervals, both

longitudinally and athwartships). The owner's representatives should remove overhead and bulkhead panels, as directed by the inspectors to facilitate the examination. Locations usually examined include stateroom corridors, lounges, and areas in way of the side shell. The inspectors, designer, and owner's representatives should coordinate panel removals to minimize delays.

g. Space Categorization. The inspectors should verify space categorization shown on the SFP drawings (for example, whether small lockers located within cabin corridors are appropriately categorized (Category 7 or 13), and are separated via rated boundaries and fitted with detectors and sprinklers, that Category 10 spaces are not fitted with storage/shelving, desks, tables, etc.).

h. Smoke Detector and Sprinkler Arrangements. The inspectors should examine smoke detector and sprinkler spacing in accordance with SOLAS Chapter II-2. This examination should include a check of the ship's compliance with SOLAS regulation II-2/9.4.1.3.3 in way of lifeboat and life raft deployment routes.

i. Reference Information. The shipyard or owner's representative shall provide the following items to the Coast Guard inspectors upon arrival:

(1) Approved copies of each of the following plans, for our use onboard the vessel (or drawings showing the same details as the drawings submitted for approval):

(a) SFP Plan;
(b) SFP details showing insulation thickness;
(c) SFP details for cable, ventilation, and other penetrations; and
(d) Ventilation plans to verify location/routing of ducting in way of A-class boundaries.

(2) Type approval certificates for all the following items:

(a) Fire rated doors, for each model installed;
(b) Fire rated windows, for each model installed;
(c) Low flame spread, toxicity, and smoke materials installed throughout the vessel; and
(d) Non-combustible materials, including fire insulation, installed throughout the vessel.

(3) Manufacturer's manuals, including details regarding the components and installation procedures for:

(a) Automatic sprinkler system; and
(b) Smoke and Heat Detection system.

8. Preparing for the Initial Examination.

a. The ICVE occurs after the Coast Guard has completed plan review and the SFP examination and after the MSC provides appropriate comments and stamped

plans to the local Officer-in-Charge, Marine Inspection (OCMI). Once the first U. S. embarkation port is determined, the designer or owner's representative should schedule the examination with the appropriate Coast Guard Office. The designer or owner's representative should schedule this examination at least forty-five days before the examination so the Coast Guard may assemble the examination team.

b. For an ICVE begun overseas, the Coast Guard will perform an ICVE Assessment. The Coast Guard performs this walk-through examination approximately one week before the examination to verify the vessel is prepared. The OCMI responsible for overseas inspections at the ship's location will perform the ICVE assessment.

c. The vessel's representative should be prepared to discuss all changes made to the vessel since plan review with the Coast Guard inspection team. If the designer made significant changes to the vessel, the designer should submit revised plans of the areas affected to the MSC.

d. The Coast Guard will rarely conduct an ICVE when the ship is underway. The vessel's representative may direct requests for underway examinations to Commandant (CG-543), who will evaluate such requests on a case-by-case basis. Before granting an underway inspection request, the Coast Guard will consider and evaluate whether:

(1) The vessel is newly constructed;

(2) A structural fire protection examination has been previously completed (failure to complete the structural fire protection examination will preclude an underway examination);

(3) All plan review comments have been resolved (outstanding plan review comments will preclude an underway examination);

(4) Passengers will be on board during the examination (generally, passengers on board will preclude an underway examination);

(5) Sea trials will be conducted during the examination (generally sea trials would preclude an underway examination);

(6) The underway portion of the exam is between two U.S. ports (generally, an overseas underway examination is not acceptable);

(7) Pierside time is allocated to examine items that cannot be accomplished at sea; and

(8) The local OCMI agrees that it will be advantageous to the Coast Guard.

e. An ICVE should not begin until the Administration (or RO acting on behalf of the Administration) issues the SOLAS Passenger Ship Safety Certificate (PSSC). The Coast Guard may relax this requirement when the flag Administration expects to issue the PSSC at the end of the examination (see enclosure (2)). The designer or owner's representative should provide original certificates

demonstrating compliance with all applicable international treaties for examination by the Coast Guard. See the Owner's Guide, enclosure (3), for a detailed listing.

f. The designer or owner's representative should provide the following additional flag-approved plans (or drawings showing the same details as the drawings submitted for approval) during the ICVE to assist field inspectors:

(1) Fixed fire extinguishing system plans for systems required by SOLAS Chapter II-2;

(2) Fixed fire detection and alarm system plans;

(3) Ventilation system plans;

(4) Lifesaving plan; and

(5) Fire control plan.

g. Vessel operators should anticipate three to four days in port for the ICVE depending upon the size of the vessel and the complexity of the systems on board. The Coast Guard allows up to two years between the beginning of the overseas portion of the ICVE and the continuation of the ICVE at the vessel's first U.S. embarkation port provided there are no modifications to the vessel's structural fire protection or means of egress in the intervening period. If more than two years have passed since the beginning of the initial examination, the Coast Guard will require a new and complete ICVE at the first U.S. embarkation port.

h. The designer or owner's representative should prepare a written plan for conducting the initial examination to provide the sequence of the examination such that the Coast Guard marine inspectors, flag Administration, classification society, owner's representatives, ship's personnel, shipyard representatives, and all other parties will be ready to perform their roles efficiently during the examination. The Coast Guard lead inspector may prepare a modified sequence for the examination.

9. ICVE. Coast Guard marine inspectors will visit the vessel during construction or during lay-up to inspect the vessel and test systems not readily examined on an operating vessel. Typically, the initial examination will take 3 to 4 days and will involve an inspection team comprised of 4 to 6 Coast Guard marine inspectors from the inspection office responsible for inspections at the vessel location, the first U.S. embarkation port, and the MSC. The Coast Guard expects representatives from the Administration or RO and the owner to participate in the ICVE. These representatives have the responsibility to ensure that the vessel complies with the safety, construction, and equipment requirements in the applicable SOLAS Convention as well as the applicable provisions of the MARPOL 73/78, ILO 147, STCW, and Load Line Conventions. The Coast Guard will verify that the vessel is in substantial compliance with these conventions. To this end, the inspection team will focus on structural fire protection, fire protection systems, means of escape and related signs, lifesaving equipment, engineering systems, emergency fire and boat drills, and the resolution of plan review comments. The inspectors may vary the

scope of the ICVE as necessary to verify classification society and flag Administration controls on quality of construction and agreement with the reviewed drawings. The Coast Guard marine inspectors should determine the scope of examination based on vessel conditions, with certain items examined in detail and others by random sampling. Before the examination takes place aboard the vessel, the inspectors, Administration representatives, designer, and owner's representatives should meet to discuss the scope of the examination and preparation details. The ICVE will include:

a. Document Check. The examination usually begins with a meeting between the inspection team and the master, at which time the inspectors should examine the documents and certificates discussed in Enclosure (3).

b. SFP Design Features. If the Coast Guard has not conducted a SFP examination before the initial examination, the inspectors may examine structural fire protection design features as discussed in Paragraphs A.7.a. through A.7.h. Please note this SFP examination may add 1 to 2 days to the initial examination.

c. Escape Routes. The inspectors may examine doors for signs entitled "EXIT or EMERGENCY EXIT" or similar markings. Doors marked on the Means of Escape Diagram as a primary or secondary escape should be free of locking devices at all times. The inspectors may also check escape stairways for the removal of combustibles.

d. Automatic Sprinkler Systems. The inspectors may check these systems at the section valves to verify proper operation of the automatic alarm, fault alarm, and the means to prevent unauthorized operation. The inspectors may verify automatic sprinkler system valve arrangements to ensure that the system is properly lined-up to provide water pressure from the pressurized storage tank and that backup water supply pumps are available and functional.

e. Fire Pumps and Hydrants. The inspectors may examine fire main hydrants for coverage and for proper outfitting with hoses, spanner wrenches, and nozzles. The inspectors may witness tests of all fire pumps and emergency fire pumps including automatic controls for proper operation. The inspectors may witness a test of the fire main system at normal working pressure and a test of water flow from at least two remote hydrants.

f. Fixed Smoke and Heat Detection Systems. The inspectors may examine smoke detectors by random sampling using appropriate testing devices provided by the vessel or owner's representative. The inspectors may examine centralized smoke detection alarm panels during detector tests in each detection zone for proper operation.

g. Fire Doors and Watertight Doors. Inspectors should verify the proper and safe operation of fire and watertight doors with regard to opening and closing mechanisms, releasing devices and bridge indicating panels required by the applicable convention. Inspectors should verify that fire doors properly self-close and latch when released especially when the ventilation systems are operating to ensure there is no effect on fire door closure.

h. Engineering Systems. Inspectors should observe the operation of machinery such as the emergency generator (under load), steering system, remote fuel oil shut-off valves, oily water separators, fire and bilge pumps, fixed gas fire extinguishing system alarms, etc. Inspectors should pay particular attention to the condition of piping, ducting, general condition of the boilers (main or auxiliary), presence of any fuel or oil system leaks, and general maintenance during a walk through of the engineering spaces.

i. Emergency Lighting. Inspectors should observe a test of the emergency lighting to determine proper location and adequacy using both the emergency generator and the transitional source of power (batteries) for 30 minutes under full load.

j. Proliferation of Combustible Construction. Method II construction under SOLAS 29, 48 and 60 Conventions permitted wood and other combustible materials in the construction of interior divisions. Inspectors should discourage the reinstallation of combustible construction materials when making modifications. Inspectors should verify original construction in accordance with approved plans, but note reinstallation of previously-approved combustible items is not acceptable beginning 2010. All modifications made after 1 July 1998 shall be of noncombustible material as required in Regulation II-2/41-1.

k. Lifesaving Systems/Launching Appliances. Lifesaving systems include lifeboats, davit-launched and float-free life rafts, rescue boats, marine evacuation systems, ring buoys, lifejackets, immersion suits/anti-exposure suits, distress flares, and line-throwing apparatus.

(1) Inspectors should verify that the quantity and type of primary lifesaving equipment is satisfactory based on the number of passengers and crew permitted by the SOLAS certificates and that these are in good condition and properly installed and stowed. Inspectors should pay particular attention to the material condition of the lifeboats, lifeboat on-load release mechanisms, falls, and davits. Inspectors should check life rafts for proper stowage.

(2) Inspectors should witness the deployment of a davit-launched life raft. The inspector should not accept a training raft used for such testing unless it is substantially the same size and type of raft as used for primary lifesaving (e.g. do not accept a twelve person raft test if the vessel uses 35 person rafts). The inspectors should witness the crew rigging life rafts for deployment to ensure the davit arrangement and crew competence is suitable to deploy the required amount of primary life rafts during the 30-minute timeframe allowed by SOLAS. The inspectors should examine float-free raft installations for proper stowage.

(3) During the boat drill, the vessel should lower to the water, release, operate, and recover all lifeboats on the outboard side of the vessel. Inspectors should witness this drill. Since the initial examination often includes inspections overseas and at a U.S. port, the vessel should make every effort to perform this drill for both sides of the vessel. If this is not possible, the inspectors should issue a requirement to lower, release, operate and recover all lifeboats on the untested side of the vessel at the next U.S. port and should witness the

crew start lifeboat engines for lifeboats on the untested side. Inspectors should pay special attention to any additional lifeboat capacity that the vessel added after an increase in the vessel's capacity.

(4) The inspectors should witness deployment of at least 50 percent of marine evacuation systems (MES) as specified in Part 2, Section 7 of Resolution MSC.81(70). If the remaining untested MES units differ substantially from the deployed units, the inspectors should also witness the deployment of these units. In addition, for new installations, the inspectors should witness a partial evacuation test in accordance with Part 2, Section 7 of Resolution MSC.81(70) (This partial evacuation test is not required for existing vessels with existing MES installations during an ICVE). The partial evacuation test does not involve timed evacuation, but involves a check whether the system interferes with launching other lifesaving equipment fitted on board and that the system and its life rafts are clear of obstructions such as propellers, and stabilizers.

(5) Owner/operators should make MES installations not tested at the initial examination available for deployment testing, witnessed by inspectors, within 12 months of the ICVE.

(6) Inspectors should check personal lifesaving appliances including ring buoys, lifejackets, and immersion suits/anti-exposure suits at random for condition, type, stowage, and quantities.

l. Reduced Lifeboat Capacity. The various versions of SOLAS permit reductions in the required lifeboat capacity for certain vessels on "short international voyages," as compared with the requirements for "international voyages." Vessels that are on short international voyages must meet the special standards of subdivision unless exempted by their flag Administration based on meeting a two-compartment standard of subdivision. Inspectors should note the "volume of traffic" provision for lifeboat capacity applies only to areas such as the English Channel, where both the volume of ferry passengers and the volume of shipping are large. No comparable areas exist adjacent to any port in the United States. In light of this fact, the U.S. does not allow the use of the volume of traffic provision in SOLAS to reduce lifeboat capacity. The U.S. verifies the minimum number of lifeboats required listed in the Table in SOLAS 60 Regulation III/28, columns B and C, or SOLAS 74 Regulation III/28, or SOLAS 74 (as amended in 1983) Regulation III/21 provided that:

(1) The life rafts provided for the remainder of the persons on board are served by launching appliances; and

(2) The vessel complies with the special standards of subdivision prescribed in SOLAS 74 Regulation II-1/6.5, and the associated special provisions regarding permeability in SOLAS 74 Regulations II-1/5.4.1.

m. Passenger Launches. If a vessel uses its lifeboats as launches or has separate vessels that will be used as launches while anchored in U.S. ports, the Coast Guard will require launches to have either a PSSC, Lifeboat/Tender Safety

Equipment Certificate, or a Coast Guard issued Certificate of Inspection. If the launches possess either of the first two certificates issued by the flag Administration, the Coast Guard will verify the launch meets the appropriate requirements. Personnel that operate lifeboats as tenders shall hold qualifications equivalent to a licensed operator. For example, a licensed master or deck officer may serve as a tender operator. A lifeboatman may operate a tender after completing a training course developed by the company that covers competencies in coastal navigation and COLREGs provided the Administration has reviewed and accepted the training course. In the latter case, the ship must maintain records that indicate the lifeboatmen are trained in accordance with the Administration-accepted course.

n. Counter Flooding/Cross-Flooding Systems. Inspectors should examine these systems to ensure that they do not violate the structural fire protection provisions of SOLAS 74. If the system is an active system (valves or other arrangements), the inspector may require a system test to ensure that it is operating properly.

o. Training and Drills. The inspectors shall evaluate the proficiency of the crew in carrying out emergency response operations including fire and boat drills during the examination. These drills must be satisfactory. NVIC 6-91, “Fire Drills and On-Board Training”, provides guidance on the responsibility of governments, owners, and operators in the conduct of on board fire training and fire drills. The inspectors shall evaluate the provisions of the vessel's training manual and the emergency shipboard organization. The inspectors shall observe the communication skills of crewmembers and the officers’ and the crews’ ability to give and receive orders and to pass information and commands during drills. The inspectors may determine emergency drills unsatisfactory when, among other things, language barriers interfere with adequate verbal communication. If onboard for the passenger muster required by SOLAS Regulation III/19.2.2, the inspectors should evaluate the procedural effectiveness of the crew in crowd control, crisis management, lifejacket distribution, and passenger accountability. See the current version of NVIC 06-03 for additional details.

p. Pollution Prevention. The inspectors shall examine vessel compliance with pollution prevention requirements in accordance with NVIC 04-04. The inspectors shall select the oil pollution equipment and at least one other waste stream for this examination.

q. Navigation Safety. Inspectors should examine or test navigation equipment required by 33 CFR 164 and automatic identification systems required by SOLAS Chapter V. This includes witnessing tests of all bridge electronic equipment; verifying the vessel has the proper updated charts and current publications; and witnessing tests of the steering gear.

r. Housekeeping. Improper storage, opened packing materials, or any other items that may impair the means of egress or contribute to fire load are common operational problems. Inspectors shall bring all such hazards noted during the examination to the master's attention for correction.

s. Combustible volume calculations. Inspectors should validate combustible volume calculations and supporting documentation.

t. Vessel Security Measures. Inspectors shall examine the vessel's security program in accordance with the general requirements of the Maritime Transportation Security Act, SOLAS Chapter XI-2, and the ISPS Code, as applicable for the vessel as outlined in NVIC 06-03, "Coast Guard Port State Control Targeting and Boarding Policy for Vessel Security and Safety", paying particular attention to:

(1) Performance of ship security duties;

(2) Access control to the vessel;

(3) Control of embarkation of persons and their effects;

(4) Authorized access to and monitoring of restricted areas;

(5) Monitoring deck areas and areas adjacent to the ship;

(6) Supervision of the handling of cargo and ship stores; and

(7) Ready availability of security communications.

10. Expanded Examination. Inspectors should not limit their examination to items addressed in this enclosure, the Foreign Passenger Vessel Exam Booklet (CG-840 Series), or a strict reading of 46 U.S.C. 3303 (a), if there is reason to believe the vessel's safety equipment or material condition is substandard.

11. Completion of Examination. Upon successful completion of the initial examination, with no major deficiencies discovered, the inspectors will issue a Certificate of Compliance (CG-3585) to the vessel. The Coast Guard will also issue a single Certificate of Compliance covering all lifeboats used as tenders, provided these hold valid PSSC or Lifeboat/Tender Safety Equipment Certificates. The Certificate of Compliance is valid for up to one year, provided the vessel maintains a valid PSSC. Inspectors may clear minor deficiencies on the spot or at the vessel's next scheduled inspection as determined by the OCMI.

B. Annual Control Verification Process

The Coast Guard performs annual examinations to ensure foreign passenger vessels continue to maintain all the systems the Coast Guard previously examined during the ICVE in proper operating condition and that the flag Administration and RO, if applicable, have performed annual renewal surveys as required by SOLAS Chapter I, Regulation 7. Inspectors should focus on the vessel's firefighting, lifesaving, and emergency systems and should witness a comprehensive fire and boat drill. In addition, inspectors should examine the vessel for modifications that would affect the vessel's structural fire protection and means of escape, that were completed without approval by the vessel's flag Administration or review by the MSC.

1. Application. The Coast Guard requires foreign passenger ships that embark passengers at U. S. ports or that visit U. S. ports with U. S. citizens embarked as passengers to recertify on an annual basis. Foreign passenger ships holding control verification certificates should request a Coast Guard examination to renew these certificates when these certificates expire.

2. Definitions. The definitions in Section A. of this enclosure apply.

3. Preparing for the Annual Examination.

    a. The vessel must satisfactorily complete the annual examination before the expiration of the vessel's current Certificate of Compliance if the vessel's owner or operator wishes to depart from a U.S. port. The owner shall schedule the examination with the local OCMI at the port in which the examination is desired at least 30 days prior to the desired inspection date. The length of time to complete an annual examination is generally one working day provided there are no serious problems.

    b. The owner should notify the local OCMI of any changes to the vessel since the initial plan review. If there are any changes affecting SFP or means of egress, the owner should document the changes and provide these to the Administration and the MSC for review.

    c. The owner should provide a written copy of all outstanding Administration, RO, or classification society items to the Coast Guard.

    d. The vessel shall make all certificates, documents, and plans noted in Enclosure (3) available for examination by the Coast Guard.

    e. The vessel should review and complete all outstanding deficiencies noted in any previous Coast Guard examinations, as appropriate.

    f. In order to reduce inconvenience to the vessel and passengers, the vessel should prepare for the examination. The Coast Guard encourages the owner to contact the OCMI to coordinate the scope of the examination shortly before commencing the exam. This will minimize delays.

4. Annual Examination.

   a. Document Check. The examination usually begins with a meeting between the inspection team and the master, at which time the inspectors should examine the documents and certificates discussed in Enclosure (3).

   b. General Structural Fire Protection. The inspectors shall perform a walk-through examination of the vessel to verify that no modifications affecting structural fire protection or means of egress have been made without approved plans. Inspectors will not require removal of overhead or bulkhead panels if the vessel remains unmodified from the configuration reviewed during MSC plan review. Otherwise, inspectors may require the vessel to remove randomly selected overhead and bulkhead panels in way of modified vertical zone bulkhead penetrations and draft stop locations. Inspectors should check enclosed stairways and escape routes for proper markings and removal of stored combustible material.

   c. Automatic Sprinkler Systems. The inspectors should spot check these systems at randomly selected zone valves or zone test valves for water flow and alarms at the control panel due to the drop in water pressure or flow switch. The inspectors should verify automatic sprinkler system valve arrangements to ensure that the system is properly lined-up to provide water pressure from the pressurized storage tank and that backup water supply pumps are available and functional.

   d. Fire Pumps and Hydrants. The inspectors should spot check fire main hydrants for coverage and for proper outfitting with hoses, spanner wrenches, and nozzles. The inspectors should witness tests of all fire pumps and emergency fire pumps including automatic controls for proper operation. The inspectors should witness a test of the fire main system at normal working pressure and a test of water flow from at least two remote hydrants.

   e. Fixed Smoke and Heat Detection Systems. The inspectors should spot check smoke detectors by random sampling using appropriate testing devices provided by the vessel or owner's representative. The inspectors should examine bridge smoke detection alarm panels during detector tests in each detection zone for proper operation.

   f. Fire Doors and Watertight Doors. Inspectors should randomly examine fire and watertight doors for proper release, closure, and opening.

   g. Engineering Systems. Inspectors should observe the operation of machinery such as the emergency generator (under load) and the steering system. Inspectors should spot check remote fuel oil shut-off valves, oily water separators, fire and bilge pumps, fixed gas fire extinguishing system alarms, etc. Inspectors may spot check the condition of piping, ducting, general condition of the boilers (main or auxiliary), presence of any fuel or oil system leaks, and general maintenance during a walk through of the engineering spaces.

h. Emergency Lighting. Inspectors should observe a brief test of the emergency lighting system using both the emergency generator and transitional source of power (batteries).

i. Lifesaving Systems. Inspectors should examine the quantity and type of all primary lifesaving equipment and randomly examine all secondary lifesaving equipment. Inspectors should pay particular attention to the material condition of the lifeboats, lifeboat on-load release mechanisms, falls, and davits. During the boat drill, the vessel should lower to the water, release, motor, and recover all lifeboats on the outboard side of the vessel. Inspectors shall witness this drill. Inspectors shall also witness the crew start lifeboat engines for lifeboats on the inboard side, which cannot be lowered to the water. Inspectors should pay special attention to any additional equipment that has been added after an increase in the vessel's capacity. Inspectors should witness the deployment of a davit-launched life raft. The inspector should not accept a training raft used for such testing unless it is substantially the same size and type of raft as used for primary lifesaving (e.g. do not accept a twelve person raft test if the vessel uses 35 person rafts). The inspectors should witness the crew rigging life rafts for deployment to ensure the davit arrangement and crew competence is suitable to deploy the required amount of primary life rafts during the 30-minute timeframe allowed by SOLAS. The inspectors should examine float-free raft installations for proper stowage.

j. Passenger Launches. If a vessel uses its lifeboats as launches or has separate vessels that will be used as launches while anchored in U.S. ports, the Coast Guard will require launches to have either a PSSC, Lifeboat/Tender Safety Equipment Certificate, or a Coast Guard issued Certificate of Inspection. If the launches possess either of the first two certificates issued by the flag Administration, the Coast Guard will apply control verification procedures to the lifeboat. Note personnel that operate lifeboats as tenders shall hold qualifications equivalent to a licensed operator. For example, a licensed master or deck officer may serve as a tender operator. A lifeboatman may operate a tender after completing a training course developed by the company that covers competencies in coastal navigation and COLREGs provided the Administration has reviewed and accepted the training course. In the latter case, the ship must maintain records that indicate the lifeboatmen trained in accordance with the Administration-accepted course.

k. Training and Drills. The inspectors shall evaluate the proficiency of the crew in carrying out emergency response operations including fire and boat drills during the examination. These drills must be satisfactory. NVIC 6-91, “Fire Drills and On-Board Training”, provides guidance on the responsibility of governments, owners, and operators in the conduct of on board fire training and fire drills. The inspectors shall evaluate the provisions of the vessel's training manual and the emergency shipboard organization. The inspectors shall observe the communication skills of crewmembers and the officers’ and crews’ ability to give and receive orders and to pass information and commands during drills. The inspectors may determine emergency drills unsatisfactory when, among other things, language barriers interfere with adequate verbal communication. If

onboard for the passenger muster required by SOLAS Regulation III/19.2.2, the inspectors should evaluate the procedural effectiveness of the crew in crowd control, crisis management, lifejacket distribution, and passenger accountability. See the current version of NVIC 06-03 for additional details.

l. Pollution Prevention. The inspectors shall examine vessel compliance with pollution prevention requirements in accordance with NVIC 04-04.

m. Navigation Safety. Inspectors should examine or test navigation equipment required by 33 CFR 164 and automatic identification systems required by SOLAS Chapter V. This includes witnessing tests of all bridge electronic equipment; verifying the vessel has the proper updated charts and current publications; and witnessing tests of the steering gear.

n. Housekeeping. Improper storage, opened packing materials, or any other items that may impair the means of egress or contribute to fire load are common operational problems. Inspectors should bring all such hazards noted during the examination to the master's attention for correction.

o. Vessel Security Measures. Inspectors shall examine the vessel's security program in accordance with the general requirements of the Maritime Transportation Security Act, SOLAS Chapter XI-2, and the ISPS Code, as applicable for the vessel as outlined in NVIC 06-03, "Coast Guard Port State Control Targeting and Boarding Policy for Vessel Security and Safety", paying particular attention to:

(1) Performance of ship security duties;

(2) Access control to the vessel;

(3) Control of Embarkation of persons and their effects;

(4) Authorized access to and monitoring of restricted areas;

(5) Monitoring deck areas and areas adjacent to the ship;

(6) Supervision of the handling of cargo and ship stores; and

(7) Ready availability of security communications.

5. Completion of Examination. Upon successful completion of the annual examination, with no major deficiencies discovered, the inspectors will issue a Certificate of Compliance (CG-3585) to the vessel. This certificate is valid for up to one year, provided the vessel holds a valid PSSC. Inspectors may clear minor deficiencies on the spot or at the vessel's next scheduled inspection as determined by the OCMI.

C. The Periodic Control Verification Process

The Coast Guard performs periodic examinations to ensure vessels are being operated in a safe manner. This examination should focus on the performance of officers and crew, with specific attention paid to their training and knowledge of the ship's emergency procedures, firefighting, lifesaving systems, and performance during the drills. Since the overall material condition of the ship should not have appreciably changed since the annual examination, inspectors may randomly sample inspection items identified for examination. Inspectors may vary the scope of the examination depending upon the material condition of the vessel, the maintenance of the vessel, and the professionalism and training of the crew.

1. General. In order for a vessel's Certificate of Compliance (CG-3585) to remain valid, the Coast Guard will perform examinations of reduced scope at periodic intervals until the certificate is due for its annual renewal. Quarterly examinations are the norm; however, the Coast Guard should perform semi-annual examinations whenever workload reduction is in effect, as directed by the Area Commander (exception: the Coast Guard should always perform quarterly examinations for vessels with a deficiency history that includes a detention within the past three years). The vessel's Certificate of Compliance will remain valid if the Coast Guard determines that the vessel continues to meet the requirements for holding the Certificate of Compliance.

2. Missed Examinations. If a vessel misses a required periodic examination due to deployment outside of U.S. waters, the Coast Guard will perform a periodic examination upon the vessel's return as follows:

   a. For vessels that are only making port calls or only disembarking passengers at U.S. ports during this return voyage, the Coast Guard will perform the required periodic examination when overdue at the first U.S. port of call.

   b. For vessels that will embark passengers at one or more U.S. ports during this return voyage, the Coast Guard will perform the required periodic examination when overdue at the first embarkation port.

   c. When workload reduction is in effect, a semi-annual examination is overdue when more than seven months have passed since the annual control verification examination.

   d. When quarterly examinations apply, an examination is overdue when more than one month has passed since the nominal quarterly control verification examination date (i.e. three, six, and nine months following the last annual examination).

3. Definitions. The definitions in Section A. of this enclosure apply.

4. Preparing for the Periodic Examination.

   a. The vessel must satisfactorily complete periodic examinations on a quarterly or semi-annual basis as discussed above. The owner shall schedule the examination with the local OCMI at the port in which the examination is desired at least 14 days prior to the desired inspection date.

b. The vessel should review and complete all outstanding deficiencies noted in any previous Coast Guard examinations as appropriate.

c. The owner should notify the local OCMI of any changes to the vessel since the preceding examination. If there are any changes affecting SFP or means of egress, the owner should document the changes and provide these to the Administration and the MSC for review.

5. Periodic Examination. At a minimum, Coast Guard marine inspectors should perform the following:

a. Training and Drills. The inspectors shall evaluate the proficiency of the crew in carrying out emergency response operations including fire and boat drills during the examination. These drills must be satisfactory. NVIC 6-91, "Fire Drills and On-Board Training", provides guidance on the responsibility of governments, owners, and operators in the conduct of on board fire training and fire drills. The inspectors shall evaluate the provisions of the vessel's training manual and the emergency shipboard organization. The inspectors shall observe the communication skills of crewmembers and the officers' and crews' ability to give and receive orders and to pass information and commands during drills. The inspectors may determine emergency drills unsatisfactory when, among other things, language barriers interfere with adequate verbal communication. If onboard for the passenger muster required by SOLAS Regulation III/19.2.2, the inspectors should evaluate the procedural effectiveness of the crew in crowd control, crisis management, lifejacket distribution, and passenger accountability. See the current version of NVIC 06-03 for additional details.

b. Muster List and Emergency Instructions. The inspectors should examine the muster list and emergency instructions for correctness and completeness. These should address all elements listed in Regulation III/37 of SOLAS 74, as amended (Regulation III/53 prior to 1998 amendments). The inspectors should question crewmembers at random to ensure they know their responsibilities and muster stations during the various ship emergency evolutions.

c. SOLAS Training Manual. Inspectors should review the vessel's SOLAS training manual to ensure it contains all the elements outlined in Regulation III/35 of SOLAS 74, as amended (Regulation III/51 prior to 1998 amendments) and that the officers are familiar with its contents. The training manual should be used as a guide for the drills and properly updated if not adequate.

d. Log Book Entries. Inspectors should review the vessel's logbook for the following:

(1) The vessel has conducted required drills;

(2) The vessel has conducted crew training; and

(3) The vessel has conducted all tests required by 33 CFR 164.25.

e. Vessel Security Measures. Inspectors shall examine the vessel's security program in accordance with the general requirements of the Maritime Transportation

Security Act, SOLAS Chapter XI-2, and the ISPS Code, as applicable for the vessel as outlined in NVIC 06-03, "Coast Guard Port State Control Targeting and Boarding Policy for Vessel Security and Safety", paying particular attention to:

(1) Performance of ship security duties;

(2) Access control to the vessel;

(3) Control of Embarkation of persons and their effects;

(4) Authorized access to and monitoring of restricted areas;

(5) Monitoring deck areas and areas adjacent to the ship;

(6) Supervision of the handling of cargo and ship stores; and

(7) Ready availability of security communications.

f. General Walk-Through. This includes walking through the engine room, machinery spaces, and accommodation spaces. Spaces should be examined to ensure no modifications have taken place, and for the existence of safety hazards.

g. Pollution Prevention. The inspectors may examine vessel's fuel oil fill and vent pipe containment, oil transfer procedures, and person-in-charge list. The inspector shall also examine in detail at least one waste stream in accordance with current directives.

6. Completion of the Examination. Upon completion of the periodic examination, the inspectors shall make an entry in the Coast Guard Marine Information for Safety and Law Enforcement (MISLE) system. No additional certificate or endorsement is necessary.

OVERSEAS EXAMINATION GUIDANCE FOR FOREIGN PASSENGER VESSELS

This enclosure details guidance and procedures for overseas examination of foreign passenger vessels during an initial control verification examination.

A. Application

B. Procedures

C. Discussion

D. Completion of Examination at First Embarkation Port

A. Application. The Coast Guard encourages owners to conduct overseas examinations for new and existing foreign passenger vessels that meet the following criteria:

1. The vessel owner requests an initial Control Verification Examination (ICVE) in accordance with Enclosure (1), Part A of this NVIC;

2. The Administration or classification society representing the Administration has approved the vessel's plans; and

3. The Coast Guard Marine Safety Center (MSC) has reviewed the vessel's plans.

B. Procedures.

1. The vessel owner considering an overseas examination should submit a request in writing to the Officer-in-Charge, Marine Inspection (OCMI) responsible for inspections at the vessel location. Requests should include the following information:

   a. Status of plan review by MSC, including any unresolved plan review comments;

   b. Stage of vessel construction and delivery date;

   c. The general information noted in enclosure (1), Part A.6.a;

   d. Suggested location and dates for the inspection;

   e. Company point of contact; and

   f. Acknowledgment to reimburse the Coast Guard for all expenses incurred.

2. Upon approval of the request, the OCMI responsible for inspections at the vessel location will assemble an examination team. The team typically consists of two to six persons depending on the type of examination and the size of the vessel. The team should include an inspector from the office responsible for inspections at the vessel's first U.S. embarkation port, a MSC plan reviewer and any other personnel deemed necessary by the OCMI. The following is a list of OCMI's and areas of responsibility for overseas foreign passenger vessel examinations:

   a. Sector Boston - Eastern coast of Canada;

   b. Activities Europe - Europe, Africa, and countries bordering the Mediterranean Sea, Red Sea, Persian Gulf, and Arabian Sea;

   c. Sector Miami or Sector San Juan – Bahamas and Caribbean (unit that handles the vessel's first U.S. port should take responsibility);

   d. Sector New Orleans - South and Central America, East Coast of Mexico, West Coast of Mexico south of 20-00N latitude;

   e. Sector San Diego - West Coast of Mexico north of 20-00 N latitude;

f. Sector Seattle - Western coast of Canada;

g. Far East Activities – Asia (excluding countries bordering the Mediterranean Sea, Red Sea, Persian Gulf, and Arabian Sea), Australia, and Diego Garcia; and

h. Sector Guam – Commonwealth of the Northern Marianas Islands

C. Discussion.

1. Coast Guard marine inspectors will visit the ship during construction or lay-up period to examine structural fire protection not readily examined on an operating vessel. For new vessels and major conversion vessels, the Coast Guard recommends performing the SFP examination after plan review, but several months before the initial examination. For existing vessels located overseas, the Coast Guard may perform the SFP examination at the overseas location provided that the vessel makes structural fire protection details available for examination. This examination is to help identify any potential major problems early and also eliminate removing and restoring panels during the ICVE. The inspectors may vary the scope of the SFP examination as necessary to verify classification society and flag state controls on quality of construction and agreement with the reviewed drawings. The inspectors also determine whether spaces are properly categorized for their intended use. Typically, a SFP examination will take 2 to 3 days and will involve an inspection team comprised of two inspection teams. At least two Coast Guard inspectors, one from MSC and one from the COTP or OCMI, should attend with a maximum of four inspectors for the larger passenger ships. The Coast Guard expects the representatives from the Administration or classification society, with structural fire protection expertise, to attend the SFP examination.

2. For an ICVE begun overseas, the Coast Guard will perform an ICVE Assessment. This is a walk-through examination conducted approximately one-week before the initial examination and is intended to verify the vessel is ready for examination. This assessment will be performed by an inspector from the OCMI responsible for overseas inspections at the ship location.

3. A typical ICVE examination conducted overseas may take up to four days depending upon the size of the vessel, stage of construction, and the complexity of the systems on board. *The Coast Guard will only perform this examination when the vessel is complete and the Administration is prepared to issue a PSSC at the end of the ICVE.* This is vital since experience has shown that there are many distractions during the final weeks of foreign passenger vessel outfitting that might hamper the initial examination.

4. The lead inspector should prepare a written plan for conducting the initial examination to provide the sequence of the examination such that the inspectors, flag state, classification society, owner's representatives, and all other parties will be ready to perform their roles efficiently during the examination. The designer or owner's representative may prepare a modified sequence for the examination.

D. Completion of Examination at First Embarkation Port.

1. The OCMI responsible for inspections at the vessel's first U. S. port call where passengers will embark will complete the ICVE begun overseas. The OCMI responsible for the overseas portion of the examination will forward the inspection book and any discrepancy list to the OCMI responsible for completing the ICVE. The OCMI at the first U.S. embarkation port will not require reexamination of the items inspected and found satisfactory during the overseas part of the exam, unless vessel conditions indicate otherwise.

2. Vessel operators must anticipate and should plan for at least one day in port for the U.S. part of the initial CVE depending upon the number of discrepancies remaining from the overseas portion of the initial examination. The examination should cover the following areas:

   a. A fire and boat drill;

   b. Any outstanding discrepancies or items not inspected during the overseas portion of the examination; and

   c. Any unresolved plan review, overseas inspection, or classification society issues.

3. After successful completion of the examination, the OCMI will issue the vessel a Certificate of Compliance (CG-3585), complete the inspection book, and enter the appropriate information in MISLE.

OWNERS GUIDE FOR CONDUCTING
UNITED STATES COAST GUARD INITIAL CONTROL VERIFICATION EXAMINATION

This document is a checklist designed to help the owner's representative plan for the upcoming Initial Control Verification Examination (ICVE). It provides a listing of document checks, tests and inspections that you should make available for the Coast Guard marine inspectors during the control verification examination. If you feel a test or procedure on this checklist is excessive or unsafe, please say so, and provide an alternative test procedure.

A. Present for inspection, upon arrival at the first US Port, the following:

1. Certificates and/or Documents:

    a. Certificate of Registry *(Photo copy needed for Coast Guard Records)*;
    b. Classification Document;
    c. Passenger Ship Safety Certificate *(Photo copy needed for Coast Guard Records)*;
    d. Loadline Certificate;
    e. IOPP Certificate;
    f. Tonnage Certificate;
    g. Certificate of Financial Responsibility;
    h. Document of Compliance;
    i. Safe Management Certificate;
    j. Safe Manning Certificate *(Photo copy needed for Coast Guard Records*);
    k. Life Boatmen Certificates;
    l. Life Raft Servicing Certificates;
    m. Fire Extinguisher Servicing Certificates;
    n. SOLAS Training Manual ;
    o. Oil Record Book;
    p. Garbage Handling Plan and Record Book;
    q. International Ship Security Certificate; and
    r. Continuous Synopsis Record.

2. Provide For Inspection Crew Documentation:

    a. Medical Certificates for crew members (can not be more than two years old); and
    b. Officers Licenses (approved by the flag state).

3. Provide for review the following logbook Entries:

    a. Departure/ Arrival Tests of Navigation Equipment;
    b. Required Stability Logging;
    c. Lifesaving Training;

d. Weekly/ Monthly (as appropriate) Life Saving Equipment Inspections/ Tests;
e. Weekly Drills;
f. Muster List;
g. Oil Record Book;
h. Garbage logging in accordance with MARPOL; and
i. Security Training.

4. Completion of Overseas Portion of the ICVE Examination. The overseas portion of the ICVE is complete when:

   a. All examination items outlined above with the exception of the fire and boat drill are complete;
   b. Any outstanding MSC plan review items are complete;
   c. Any outstanding classification society items are complete;
   d. The lead inspector prepares a list of all discrepancies which cannot be immediately corrected;
   e. The lead inspector prepares an inspection book detailing the results of the overseas examination; and
   f. The inspector enters appropriate data into the Marine Information for Safety and Law Enforcement (MISLE) System.

B. Items tested or examined. This section provides specific test procedures for various ship systems during the ICVE so the vessel owner/operator time may prepare for the tests. If any test on this checklist is excessive or unsafe, please inform the Coast Guard marine inspector, and provide an alternative test procedure. **To promote efficient inspections and inspector safety, please provide inspectors with radios or equivalent devices to allow communications between inspectors during required tests.**

1. Bilge Pumping System: Run all bilge pumps. Pump bilge water from fore and aft bilge's pockets. Prove proper operation of emergency bilge suctions.

2. Damage Control Plans: The inspectors will review posted damage control plans for accuracy.

3. Watertight and Semi-watertight Doors: Test all watertight doors and semi-watertight doors from all locations. Test all hand pumps. Test stored energy capacity during transitional source of power test.

4. Steering Gear: Test steering gear in all modes from all locations. Prove low oil and loss of power alarms. Verify signs are posted with instructions for switching between systems.

5. Main Propulsion: Prove proper operations of bridge remote shutdowns for main propulsion equipment (note that a logbook entry for this test signed by the Master is an acceptable alternative to conducting this test).

6. Emergency Power Source/Transitional Power Source: See Part D, "Transitional Source of Power Test Procedures" for details.

7. Fire Pumps: Demonstrate proper operation of all fire pumps. Demonstrate proper operation of automated starting sequence (if installed). Fire mains, hydrant, and hoses: simultaneously test fire main with two hoses including the furthest and highest from the pump. When hoses discharge, monitor fire pump for automated start.

8. Fixed Gas System: Provide classification society test reports or witness the tests with Class Surveyor. Test control valves, ventilation shutdowns, damper closures and alarms. Inspector will inspect all fixed systems for proper markings. If class society has not yet tested system, inspector may require operational testing.

9. Ventilation: Provide list of ventilation shutdowns. The inspectors will randomly select shut downs to test remotely and locally. In addition, make laundry ductwork available for examination.

10. Machinery Space Remote Shutdowns: Test remote shutdowns for machinery space ventilation (fans and dampers). Test remote shutdowns for all fuel pumps, oil pumps, oil purifiers (also known as separators), etc. Test remote shutdowns for oil valves.

11. Automatic Sprinkler Systems: Provide class society report on installation testing. Test suction valves, ensuring audible and visual alarms operate at manned spaces. Test zone valves simultaneously to ensure system provides multiple alarms simultaneously. Inspectors will examine sprinkler head distribution and ensure any A-0 windows facing embarkation stations are protected with automatic dedicated sprinklers. If sprinkler system is high fog, test at least one space per type system (i.e.: manual or automatic dry pipe or wet pipe). Test stored energy portion of system. If a high-fog system is installed test the system in one area.

12. Fire Alarms: Tests various fire alarms throughout vessel, including smoke detectors, hand call alarms, flame detectors (if installed), and heat detectors. Ensure audible alarms and visual alarms activate at manned spaces, and provide location of alarm. Ensure alarms are marked.

13. Smoke Extraction Systems: See Part C., "Suggested Test Procedures for Testing Atrium Smoke Extraction".

14. Firefighting Equipment: Inventory fire lockers. Check that equipment is unpacked and ready for use. If equipment is boxed and not ready for use, the inspector should issue a work list item and recheck equipment stowage at the first U.S. port of call.

15. Fire Control Plans: Inspectors will tour the vessel with copies of fire control plans, and spot check fire fighting equipment locations on the approved plan and verify that equipment is properly stowed. When the inspector verifies accuracy of the plan, the vessel should post the plan as required by SOLAS Regulation II-2/20.

16. Structural Fire Protection (SFP): The vessel should provide a copy of the Administration-approved SFP Plans, details of standard insulation arrangement (i.e. type and thickness of A-60 insulation), and type approved certificates, so the inspectors may review and designate areas for panel removals. The vessel operator should remove panels in designated spots to allow the inspectors to examine SFP for compliance with SOLAS Chapter II-2. The Coast Guard may perform this examination at a time before the initial control verification examination.

17. Means of Escape: Provide time for inspectors to tour the vessel to inspect escapes routes. Inspectors will examine stair towers to ensure each is correctly enclosed by appropriate fire doors. During inspection, inspectors will generally look for correct signage, appropriate low location lighting, ensure no dead end corridors exist, and ensure all spaces have two means of escape. Inspectors will enter all spaces, including air handling spaces, offices, workshops, and storerooms during this inspection. The Coast Guard may perform this examination at a time before the initial control verification examination.

18. Fire Screen Doors: Test group release for fire doors or release doors zone by zone. Inspectors will split up to tour the vessel and check doors, while one inspector remains on the bridge to monitor the fire door control panel and indicator lights. Inspectors will checks doors for proper markings.

19. Ventilation System: Test remote shutdown for all accommodations space ventilation fans and dampers, which provide outside air to vessel. The inspection team will test a representative number of individual dampers within the deck house to ensure dampers operate properly and are marked properly (individual dampers may be checked during fire control plan inspection).

20. Galley: Test galley hoods. Show proper function of ventilation shutdown, system markings, and sprinkler operation.

21. Counter Flooding: Demonstrate proper operation of counter flooding hatches, doors, and fittings, if provided.

22. Lifeboats: Demonstrate proper operation of rescue boats and lifeboat davits and gear by lowering and releasing all boats (one side of vessel may be deferred to first US Port). Demonstrate proper operation of boats in water. Show required equipment aboard each lifeboat stowed properly. Inspectors will also need information for the emergency radios.

23. Life Rafts: Demonstrate that life rafts may be launched within 30 minutes. During the test, the inspectors will examine related signage, stowage and arrangements.

24. Marine Evacuation Devices (MES): Inspector should witness deployment of at least 50 percent of marine evacuation systems (MES) as specified in Part 2, Section 7 of Resolution MSC.81(70). If the remaining untested MES units differ substantially

from the deployed units, the inspectors should also witness the deployment of these units. In addition, for new installations, the inspectors should witness a partial evacuation test in accordance with Part 2, Section 7 of Resolution MSC.81(70) (This partial evacuation test is not required for existing vessels with existing MES installations during an ICVE). The partial evacuation test does not involve timed evacuation, but involves a check whether the system interferes with launching other lifesaving equipment fitted on board and that the system and its life rafts are clear of obstructions such as propellers, and stabilizers.

25. Lifejackets, Lifebuoys, and Immersion Suits: Inspect random samples of this equipment. The inspector will determine the quantity sampled of each item. Prior to the inspection, provide the inspector the number required and number aboard for each type of equipment.

26. Line Throwing Appliances: Prior to inspection, provide number required and type of line throwing apparatus on board. Inspector will verify equipment is onboard, stored properly and ready for use.

27. Assembly (Muster) Stations: Inspector will inspect size, location, signage, ventilation system, and emergency lighting at each station. Inspectors will confirm that alternate assembly stations are identified.

28. Navigation Safety: Inspector will check for required equipment as per SOLAS Chapter V and 33CFR164. Generally, the inspectors may check: signaling lamp, lifesaving signal table, pilot ladder, International Code of Signals, means of taking bearings, charts, publications, marine radar's, magnetic steering compass, magnetic compass deviation table, gyrocompass, illuminated steering gyrocompass repeater, illuminated rudder angle indicator, maneuvering fact sheet, echo depth sounding device, echo depth sounding device recorder, plotting equipment, steering gear change over instructions, log entry for steering tests (if vessel is in service), rate of revolution log, pitch indicator for controllable pitch propellers, pitch indicator for bow and/or stern thrusters, rate of turn indicator and electronic position fixing device.

29. Pollution Prevention: Prior to the inspection, the vessel should make preparations for the inspectors to examine each of the vessel's waste streams. The inspectors will select the oily water pollution prevention system and one other waste stream for detailed examination in accordance with the guidance of Navigation and Vessel Inspection Circular 04-04.

30. ILO-147: Inspector will examine crew's spaces and hospital to ensure spaces are adequate. Inspector will examine medical records for crew. If the vessel is not yet in service, inspectors will perform these examinations at the first US Port of call.

31. Standards of Training, Certification, and Watchkeeping (STCW): Inspector will review Officers Licenses and discuss the vessel familiarization program, safety-training program, rest periods, and company's responsibility.

32. Drills: Prior to embarking passengers in the United States conduct emergency drills to the satisfaction of the attending Coast Guard marine inspectors. Navigation and Vessel Inspection Circular 6-91, "Fire Drills and On-Board Training", provides guidance on the responsibility of governments, owners, and operators in the conduct of on board fire training and fire drills. Fire drills should include a realistic fire scenario in which one or more main vertical zones are inaccessible. The inspectors will evaluate the crew for knowledge, effective response, duties related to passenger safety including evacuation of affected main vertical zone(s), crowd control, crisis management, lifejacket distribution, and passenger accountability.

C. Suggested Test Procedures for Testing Atrium Smoke Extraction

The purpose of the smoke extraction system test is to verify compliance with the requirements of SOLAS Regulation II-2/32.1.7 (or SOLAS Reg. II-2/8.5 per 2000 Amendments). To demonstrate proper operation of atrium smoke extraction systems, the vessel should perform two tests. The first test will verify that a smoke alarm in the atrium will automatically activate the atrium smoke extraction system. The second test will verify that the smoke extraction system has sufficient capacity to exchange the entire volume in 10 minutes or less. The shipyard should provide a design manual that identifies the volume of the atrium as well as the capacity of the extraction fans.

1. Automatic Operation of Smoke Extraction System:
    a. Prior to the test inform all personnel that the smoke extraction system in the atrium will be tested. Ensure that cabling and shipyard equipment are clear of all fire doors that bound the atrium.
    b. Position inspector/shipyard personnel at the smoke extraction fans (or on the bridge, if it is so indicated) to verify the time at which the fans start.
    c. Ensure that the fans are placed in automatic operation.
    d. Activate a smoke detector that is located within the boundaries of the atrium.
    e. Verify that the fans start automatically and effectively extract air from the space.
    f. Verify that the doors in the fire boundaries for the atrium automatically close.
    g. Secure the test.
2. Capacity of the Smoke Extraction System: (Note the inspectors need not witness this test requirement for identical sister ships if the first vessel of the class passed this test and when atrium size, fan capacity, and ducting arrangement are unchanged from the first vessel of the class)
    a. Prior to the test inform all personnel of the impending smoke extraction system test. Notify personnel onboard the vessel that they may not enter the atrium during the test. Ensure that cabling and shipyard equipment is clear to permit closure of all fire doors that bound the atrium.
    b. Place the atrium smoke extraction system in the manual mode of operation, or otherwise temporarily disable the system so that the atrium may be filled with smoke using a smoke-generating machine.

c. Manually close all fire doors to the atrium and post personnel on the outside of each door to ensure that only authorized personnel may enter the atrium during the test.
d. Use smoke generating machines (typically supplied by the entertainment staff) to completely fill the boundaries of the atrium with smoke, such that it is impossible to see across the atrium.
e. Once the atrium has been completely filled with smoke, manually start the smoke extraction fans. If the extraction fans are part of the normal ventilation system an allowance of some additional time for the fire dampers to open is authorized. This must be agreed upon prior to the test. Note the time.
f. Continue to run the extraction fan for a period of 10 minutes or until the smoke has cleared from the atrium. During the 10-min period of the test, no one will be permitted to enter or exit the atrium. After the smoke is clear, ensure that all escape doors, especially those that open outwards, function properly while the fans are operating.
g. Secure from test. The test is satisfactory if the inspector can clearly see each exit in his/her line of sight from any location in the space and that the space is substantially free of smoke.
h. Restore the smoke extraction system to the automatic mode of operation.

D. Transitional Source of Power Test Procedures

If you feel anything on this checklist is excessive or unsafe, please say so, and provide an alternative test procedure. *Note: Test time should run at least thirty (30) minutes*

1. Prior to test:

    a. Arrange a time that all crewmembers and shipyard personnel not involved in the test can be sent ashore.
    b. Open all watertight, semi watertight doors and fire screen doors.
    c. Provide a person at the bridge to operate the general alarm and make continuous use of the public address system announcements (music).
    d. Provide personnel and equipment to test smoke detectors and sprinkler section valves.
    e. Provide an electrician in the emergency battery room to record voltage and amps of emergency batteries every five (5) minutes. Confirm that the shore tie is disconnected or tagged open.
    f. Provide a list of the vessel's spaces to be inspected during the test. This list should be agreed upon by all involved parties. The list should divide the vessel between inspectors, ensuring that a representative random sampling of all decks including outside embarkation decks are covered. Each inspector will need to be accompanied by a shipyard representative and a vessel owner representative. One representative per group should have keys to every space. Provide a radio to each inspector. If radios are not available or the radio repeaters are not on battery power, inform the lead inspector prior to the examination.

g. Discuss the programmed operation of elevators, when the emergency generator assumes the load.
h. Discuss operation of low-level lighting.

2. Test:

a. Secure all main generators. Transitional source of power will temporarily supply emergency load (emergency lights, general alarms, public address system, watertight doors, smoke detection system, sprinkler alarm panel, etc.).
b. Emergency generator should start and come on-line automatically. When emergency generator comes on-line all elevators should move to the programmed location and should no longer operate. Doors should either open or open door button should remain energized.
c. Confirm elevators moved to their proper locations and doors are as described above.
d. Once elevator positions are confirmed, secure the emergency generators.
e. Require the electrician to monitor the voltage of the emergency batteries throughout the test. Convert these readings to percentage of power remaining in the batteries. This power shall be within 12% above or below its nominal voltage.
f. Have bridge close all fire screen doors and semi-watertight doors. This will allow check of doors and assist gauging of adequacy of emergency lighting, general alarms and Public Address (PA) System. During the test the inspector will fully open and close a random number of sliding doors (if installed) a total of ten times.
g. Have bridge close all watertight doors. (This will demonstrate one (1) closing using stored energy).
h. Have bridge ring the general alarms and operate the PA. The PA system must constantly be sounding (music) and the general alarm must be rung every 1 minute throughout the test.
i. Tour all spaces throughout vessel chosen for representative random sampling to ensure that general alarms, PA and emergency lights are operating and adequate. Perform the tour for at least 30 minutes with the ship on emergency battery power.
j. During the tour of the vessel, open and close watertight doors one more time. This will prove second closing of watertight doors using stored energy.
k. Test fire alarms to ensure system is on transitional source of power.
l. Test sprinkler section valves to ensure system is on transitional source of power.
m. When thirty minutes are up take a final transitional battery reading and start emergency generator. This will provide power for main engine auxiliary pumps (i.e. Lube oil and fuel oil pumps etc.). Observe main start and assume the load.