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NVIC 4-95
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 4-95

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Subj: Fire Safety Standards for Foreign Passenger Vessels Constructed before 1 October 1994

1. PURPOSE. This Circular provides plan review and examination guidance for owners and operators of foreign passenger vessels constructed before 1 October 1994 which carry more than 36 passengers and embark passengers from United States' ports
2. DIRECTIVES AFFECTED. NVIC 3-93 is cancelled.
3. BACKGROUND.
 - a. In 1993, the Coast Guard promulgated NVIC 3-93 to call attention to the 1992 Fire Safety Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74).. The most significant part of these amendments were requirements for new and existing passenger vessels. For the purpose of these amendments, existing passenger vessels are defined as those vessels having a keel laying date prior to 1 October 1994.
 - b. The amendments applying to existing passenger vessels are retroactive and phase-in over a 16 year period beginning on 1 October 1994. The amendments require significant modifications to existing passenger vessels which carry more than 36 passengers. These modifications include the installation of fixed automatic sprinkler and smoke detection systems, low-location lighting, and upgrades for enclosed escape stairways.
 3. c. In 1993, the Coast Guard also promulgated NVIC 1-93 which offered guidance on pre-arrival plan review and examinations for foreign passenger vessel.. The primary goal of NVIC 1-93 was to minimize unscheduled delays for foreign passenger vessels which were to embark passengers for the first time from a U.S. port. These vessels are required to undergo an initial Control Verification Examination (CVE) to ensure they are in substantial compliance with the SOLAS 74 Convention. NVIC 1-93 also required an initial CVE for foreign passenger vessels already operating out of U.S. ports if selected by the Commandant.
4. DISCUSSION.
 - a. An active Port State Control Examination Program is an integral part of the SOLAS 74 Convention and continues to be applied in accordance with U.S. public law. Under the port state control initiative, the Coast Guard conducts boardings to determine vessel compliance with applicable domestic and international standards. This program was implemented to identify substandard vessels through boardings and examinations, and then to take appropriate action to eliminate the threat that these vessels pose to U.S. waters, ports and citizens. With approximately 4.5 million passengers embarked in U.S. ports annually, the Coast Guard intends to remain actively involved from a port state

control perspective to ensure full and consistent compliance with the 1992 Retroactive Fire Safety Amendments to the SOLAS 74 Convention.

- b. The Coast Guard will continue to permit existing foreign passenger vessels to embark passengers from U.S. ports after it is fully satisfied that they are in substantial compliance with the 1992 Retroactive Fire Safety Amendments. To determine such compliance the Commandant directed that all existing foreign passenger vessels which carry more than 36 passengers and embark passengers from U.S. ports undergo a CVE in accordance with NVIC 1-93, Enclosure (1), Part A. As discussed above, these oversight procedures have already been in effect for new passenger ships, and existing passenger ships undergoing major modifications, for a number of years. Given the extent of the modifications required by the 1992 Retroactive Fire Safety Amendments, it is necessary to apply these oversight procedures to existing foreign passenger ships as well.
- c. The objective of this NVIC is to provide foreign passenger vessel owners, operators, and Coast Guard field units with the additional information and guidance necessary to prepare for the CVE process. The increased guidance is expected to ensure consistent enforcement of the 1992 Amendments while continuing to minimize delays for vessel owners and operators. Enclosure (1) of this NVIC contains the additional information and guidance discussed above.
- 4. d. The extent and degree of examination necessary to determine that a vessel is in substantial compliance will vary dependent upon the date of keel laying and subsequent history of the vessel. For example, ships built after 1968 will most likely require only minor modifications and, if already operating out of U.S. ports, has already undergone an extensive initial CVE in the past several years. Such ships will not require any more time in port than the time already set aside for the normally scheduled annual examination. However, for older ships, such as those built to SOLAS 60, modifications may be extensive and therefore require two or three days in port to complete the examination.
- e. Owners and operators are encouraged to discuss the length and date of the examination with the cognizant OCMI after plan review by the Marine Safety Center (MSC) has been completed. However, plan review by the MSC will not be conducted unless the vessel plans are stamped "approved" by the vessel's flag state or flag state representative.

5. ACTION

- a. The Coast Guard will provide plan review and examinations for all existing foreign passenger vessels which embark passengers from U.S. ports in accordance with the guidance contained in enclosure (1).
- b. Officers in Charge of Marine Inspection are encouraged to bring enclosure (1) to the attention of the appropriate individuals in the marine industry within their zones.

- c. Owners and operators of existing foreign passenger vessels are encouraged to review the guidance contained enclosure (1) to prepare the CVE process.



J. C. CARD
REAR ADMIRAL, U.S. COAST GUARD
CHIEF, OFFICE OF MARINE SAFETY,
SECURITY AND ENVIRONMENTAL
PROTECTION

***PLAN REVIEW AND EXAMINATION GUIDANCE FOR FOREIGN PASSENGER VESSELS
AFFECTED BY REGULATION 11-2/41-1 OF THE SOLAS 74 CONVENTION WHICH INTEND
TO EMBARK PASSENGERS FROM U.S. PORTS***

1. Application. The Coast Guard will provide plan review and examinations for all existing foreign passenger vessels which intend to embark passengers from U.S. Ports. The purpose will be to verify substantial compliance with the 1992 Retroactive Fire Safety Amendments to the SOLAS 74 Convention.
2. Definitions. The following definitions are provided for use with this NVIC:
 - a. Existing foreign passenger vessels: All foreign passenger vessels carrying more than 36 passengers constructed before 1 October 1994.
 - b. Dead-end corridor. A corridor or part of a corridor from which there is only one route of escape.
 - c. Lobby: A small corridor providing direct access between an enclosed stairway and any other space.
 - d. Major Modification. Major modifications shall be defined in accordance with Regulation 11-2/1.3.1 and 1.3.2. For further guidance see paragraph 4.j of this enclosure.
 - e. Part H of Chapter II, SOLAS 60: Amendments adopted to the SOLAS 60 Convention¹ as contained in Annex III of Resolution A.122(V), which eventually became the basis for the fire protection requirements contained in Chapter 11-2 of the SOLAS 74 Convention. Vessels built in their entirety to Chapter II of SOLAS 60 Part H shall be considered as vessels constructed to SOLAS 74.
3. Plan Review Policy Guidance: Plan review will be conducted in accordance with NVIC 1-93, Enclosure (1), Part A. The following information is provided as "additional" guidance to NVIC 1-93:

- a. Vessel plans should be submitted to the Marine Safety Center (MSC) no later than 1 April 1997. It is highly recommended plan review submissions be made as early as possible to avoid delays in the plan review process. Plans should reflect the "as-fitted" condition of the vessel and be approved by the flag administration.
 - b. Owners should specify in their plan review submission letter at least three recommended dates (month/year) and locations for scheduling the Control Verification Examination (CVE). The CVE dates should take into account the time necessary to complete the plan review process (approximately three months). Given the number of vessels requiring plan review and examinations, the final approval of CVE dates and locations will be determined by Commandant (G-MVI) in coordination with the MSC, the Marine Safety Office (MSO) and the vessel owner. Such information will be contained in the plan review response letter from MSC. After receiving the plan review response letter, vessel owners should contact the local Officer in Charge, Marine Inspection (OCMI) to discuss specific dates and times for the CVE based on operational schedules and needs.
 - c. Fire Control Plans should be in accordance with Resolution A.756(18). In addition, the fire control plan should include a profile of the vessel and plan symbols should be in accordance with Resolution A.654(16).
 - d. In addition to the general information required by NVIC 1-93, the following additional information should also be provided:
 - (1) Clear indication that plans are submitted in accordance with this NVIC;
 - (2) All pertinent dates (if known) that plans were previously submitted to the Coast Guard for plan review (preferably with copies of all correspondence from the Coast Guard).
 - (3) Clear indication of whether the ship has an automatic sprinkler system installed in accordance with Regulation 11-2/36 or 41-2.5. If not, the date of installation should be provided if known.
 - (4) Clear indication of any exemptions related to compliance with Regulation 11-2/41-1 and 41-2. Vessels built to Part H of Chapter II, SOLAS 60, which are granted an exemption as per Regulation 11-2/41-1.4 should provide a flag state exemption certificate or its equivalent.
 - (5) Clear indication of those areas of the vessel modified to comply with Regulation 11-2/41-1 on the general arrangement, means of escape and insulation plans; and
 - (6) Clear indication of any modifications effecting the existing arrangement which are in addition to the modifications necessary to comply with the 1992 Retroactive Fire Safety Amendments.
 - e. If, in the opinion of the flag administration, a major modification has occurred it should be clearly stated in the plan review submission letter to MSC.
4. General USCG Interpretations. The following interpretations will be accepted by the Coast Guard if implemented by vessel owners or operators. It is highly recommended vessel owners follow the concept review procedures discussed in NVIC 1-93 if proposing alternative interpretations

due to their vessel's particular design. Concept reviews greatly assist in detecting problems early in the plan review stage thus avoiding unnecessary delays. In addition, as unified interpretations are developed and approved by the International Maritime Organization (IMO) they will supercede the interpretations provided below. The following interpretations are provided:

- a. Regulation 11-2/41-2.4.4. Spaces originally located "within" the stairway enclosure may continue to have direct access to the stairway enclosure provided they are separated from the stairway by "A" class divisions and doors, and automatic sprinklers are installed. These spaces generally include small offices, pantries, sanitary facilities, information areas, and small storerooms. In no case should cabins open into a stairway enclosure.
- b. Regulation 11-2/41-2.4.5. Spaces adjacent to, but not originally located within, the stairway enclosure, should not have direct access to the stairway enclosure. Where a question exists as to whether a particular space was, or was not, originally located within a stairway, the most conservative requirements will be applied.
- c. Use of lobbies. Lobbies which are used to separate an enclosed escape stairway used by passengers from any space, other than those spaces permitted by Regulation 11-2/41-2.4.4 or 4.5 to have direct access to the stairway, should be adequately sized to support the mustering of a fire party. Lobbies used to separate galleys and main laundries will be accepted provided there is a minimum floor area of 9 square meters and a width of no less than 1.5 meters. Such lobbies should be treated as Category 3 Spaces, contain a fire hose station, and not form a dead-end corridor. In addition, the doors should be widely separated.
- d. Dead-end corridors. New dead-end corridors should not be installed. In addition, a lobby installed to comply with Regulation 11-2/41-2.4.5 will be considered as a new dead-end corridor if no other escape access is available to the space the lobby serves. Such arrangements will be reviewed on a case-by-case basis.
- e. Smoke detectors. Smoke detectors are required above ceilings in corridors and stairways if such ceilings are of combustible construction. Ceilings will be considered to be of "combustible construction" if the supports or panels are constructed of combustible material.
- f. Portable fire fighting equipment. Two way portable radios should be audible from most parts of the vessel. As a minimum, they should be audible from where the fire patrol makes their hourly rounds (e.g., key box locations, spaces on fire patrol checklist, etc.).
- g. Low-location Lighting. Low-location Lighting systems and materials should be installed in accordance with Resolution A.752(18). The lighting should be continuous except as interrupted by corridors and cabin doors. If a system is designed to provide a visible delineation, then the international or national standard used to demonstrate such a delineation, should be referenced and/or provided if requested by the MSC or the OCMI.

- h. Existing RO/RO spaces. RO/RO cargo and special category spaces which no longer serve as a vehicle deck should not be used for general storage containing flammable materials or liquids. If these spaces are found to have large quantities of such materials, then the storage should be contained within structural and thermal boundaries which provide for containment and extinguishment. In addition., such spaces should be reclassified and main vertical zone (MVZ) boundaries installed, as appropriate.
- i. Central Control Station. Several paragraphs within Regulation 41-2 specify certain controls to be located within a central control station. Particularly, the indicators and controls for fire doors. A unified coloration plan (e.g., red means open, green means closed) should be used on the various control panels; fire screen doors, watertight doors, ventilation dampers, etc. Ship owners submitting plans should make clear where the central control station is located and what functions and indicators are installed.
- j. Major modifications. For modifications which do not meet the definition of a major character as contained in Regulation 11-2/1.3.1, but are considered to involve the replacement of 50 tonnes of material or above, the following items should be included in the weight calculations: all fire rated bulkheads, doors and ceilings ("C" and above); all partial bulkheads; all vent dampers and ducts; piping; and cables. However, these items need not be included in the calculation if the alterations are specifically to comply with the ~992 Retroactive Fire Safety Amendments. Materials such as carpet, draperies, and furniture need not be included in the calculation since they are subject to frequent wear and subsequent change.
- k. Glass Installed in "A" or "B" Class Bulkheads. Glass should not be installed as an interior MVZ or stairway enclosure bulkhead. However, glass may be installed as an exterior "A" class bulkhead or interior "B" Class bulkhead provided it is shown to be equivalent to that required by Regulation 11-2/26. In these cases¹ the flag administration should issue an "A" or "B" Class Equivalence Certificate, as appropriate, and the location clearly indicated on the vessel plans.

5. Examination Guidance.

- a. The CVE required by this NVIC should be conducted in accordance with the date and location specified in the MSC response letter as discussed in paragraph 3.b. of this NVIC. Upon receipt of the MSC response letter owners and/or operators are encouraged to discuss these dates with the cognizant OCMI. A minimum of 45 days pre-arrival notice should be given so that the OCMI can schedule the examination. Vessel operators should anticipate at least two days in the port for this examination depending upon the size of the vessel and the complexity of the systems on board. See NVIC 1-93, Part A, paragraphs 6 and 7 for further guidance.
- b. If a vessel has not received the CVE required by this NVIC before 01 October 1997, regularly scheduled annual and quarterly examinations may be used by OCMI's to verify required fire fighting and lifesaving systems have been installed by the dates specified in Regulation 11-2/41-1. However, such systems may be reexamined and tested during the CVE required by this NVIC once MSC plan review has been completed.

- c. OCMI's may verify the following requirements have been completed on all existing foreign passenger vessels unless stated otherwise:
- (1) Fire Control Plans should be in accordance with IMO Resolution A.756(18) and Resolution A.654(16). Inspection of the fire control plans may be conducted by MSO's at the next annual or quarterly examination.
 - (2) Portable fire fighting equipment. Operational tests and/or inspection of this equipment may be conducted by MSO's at the next annual or quarterly examination. Equipment to be verified may include portable two-way radiotelephone apparatus, water fog applicators, portable foam applicators, and dual-purpose type hose nozzles. In addition, the fireman's outfits required by Regulation 11-2/17, as amended in 1992, may also be verified.
 - (3) Fixed automatic sprinkler Systems. Automatic sprinkler systems should be in accordance with Regulation 11-2/12 or Resolution A.755(18). operational tests of these Systems may be conducted by MSO's at the next annual or quarterly examination after 1 October 1997 for ships which do not comply with all the requirements of Chapter 11-2 of SOLAS
 - (4) Fixed smoke detection systems. The smoke detection system should be in accordance with Regulation 11-2/13. Operational tests of these systems may be conducted by MSO's at the next annual or quarterly examination after 1 October 1997.
 - (5) Low-location lighting. Verification of installation and operation of low-location lighting Systems may be conducted by MSO's at the next annual or quarterly examination after 1 October 1997.
 - (6) Ships which do comply with all the requirements of Chapter 11-2 of SOLAS 74, but were constructed before 1 October 1994, should have a fixed automatic sprinkler system installed in accordance with Regulation 11-2/12 or Resolution A.755(18) by 1 October 2005 or 15 years after the date of construction, which ever is later. If already installed, owners may request their system be verified at the next annual or quarterly examination after 1 October 1997.
- d. Completion of Examination. Upon successful completion of the CVE (no major deficiencies), the vessel will be issued a new Control verification Certificate (CG-4504). This certificate is valid for up to one year and will be endorsed "This vessel has been examined and found in substantial compliance with Regulation 11-2/41-1 of the SOLAS 74 Convention". In no case may the certificate exceed the expiration date of the vessel's Passenger Ship Safety Certificate.