

- 5) Permanently Moored Vessels
- A) Occupancies located on permanently moored floating vessels are subject to compliance with the applicable occupancy chapter of the Life Safety Code (2000 edition), the fire safety standards contained in National Fire Protection Association Standard 307, Standard for the Construction and Fire Protection of Marine Terminals, Piers and Wharves (1995 edition) and the criteria listed in this Section.
  - B) A stability test shall be conducted by the licensee in accordance with 46 CFR, Subchapter S, Part 170, Subpart F. In lieu of a stability test, the licensee may elect to perform a Deadweight Survey to determine the Lightweight Displacement and Longitudinal Center of Gravity. The Vertical Center of Gravity shall be determined by a conservative estimate, subject to approval by a marine authority acceptable to the Office of the State Fire Marshal.
  - C) The intact stability characteristics for each vessel must comply with the following criteria:
    - i) 46 CFR, Subchapter S, Part 170, Subpart E, Sections 170.160, 170.170, and 170.173.
    - ii) In lieu of compliance with Section 170.173, the licensee may elect to comply with alternate criteria for Vessels of Unusual Proportion and Form, as may be acceptable to the United States Coast Guard at that time, for certified passenger vessels.
    - iii) 46 CFR, Subchapter S, Part 171, Subpart E, Section 171.050.
  - D) All permanently moored vessels shall be required to comply with a one-compartment standard of flooding, as outlined in 46 CFR 171.070, regardless of the passenger capacity of the vessel.
  - E) All permanently moored vessels shall be required to comply with Damage Stability Standards of 46 CFR, Subchapter S, Part 171, Subpart C, Section 171.080.
  - F) Additionally, all vessels must comply with requirements for Stability After Damage (Damage Righting Energy Criteria) as may be acceptable to the United States Coast Guard at that time for certified passenger vessels.
  - G) Additionally, an annual survey shall be conducted of permanently moored vessels to determine if structural changes exist which may affect the stability of the vessel. The survey shall consist of the following:
    - i) General inspection of the superstructure and layout of

outfitting to ensure there are no changes to the approved arrangement that may affect the stability of the vessel;

- ii) Inspection of the underdock spaces to ensure watertight integrity of the vessel is maintained;
- iii) Inspection and report on the condition of the hull and watertight bulkheads;
- iv) Inspection and report on the condition of water tight doors and water tight bulkhead penetration; and
- v) Inspection and report on the condition of ventilator, hatch covers, and manhole covers.

This annual survey does not apply to United States Coast Guard Certified Vessels that are subject to their regulatory inspections.

#### H) Inspection and Examination of Permanently Moored Vessels

- i) Permanently moored vessels shall undergo drydock and internal structural examinations at intervals in accordance with 46 CFR 71.50-3 or present evidence of compliance with alternative methods of hull examination as may be deemed acceptable at the time, by the United States Coast Guard, for vessels that operate in fresh water.
- ii) Inspection of permanently moored vessels having steel or aluminum hulls may be performed in dry-dock or in-the-water. In-the-water inspections shall consist of an internal structural examination and a detailed non-destructive examination of the vessel's hull. The non-destructive hull examination may be performed by underwater inspection methods or from inside the vessel if all compartments are safely accessible. ("Safely accessible" shall be dependent upon the issuance of a "gas free certificate" by a certified marine chemist.)
- iii) All structural and in-the-water examinations and inspections of permanently moored vessels shall be under the direction of a registered professional engineer. Expertise of the engineer, or engineering team, shall include non-destructive testing methods and procedures, materials engineering and naval architecture, material engineering knowledge of both general and specific corrosion types associated with welds and oxygen differential cells, as well as the effects of such types of corrosion on hull longevity.
- iv) The inspection techniques must be under the general direction of an American Society for Nondestructive Testing (ASNT) Level III Non-destructive Certified Technician.

Inspections and measurements must be performed by an ASNT Level II (or higher) Non-destructive Certified Technician.

- v) The inspection results must be maintained in a format that will allow for examination by the Office of the State Fire Marshal's representatives, including comparison of results from the previous inspections.
  - vi) Repairs using underwater welding shall be subject to periodic reevaluation at subsequent inspections. Such repairs shall be completed in accordance with the standards found in the American Welding Society's "Specifications for Underwater Welding".
  - vii) The Office of the State Fire Marshal may require immediate dry-docking of the vessel if structural examinations and underwater inspections or repair work are not conducted in accordance with this Section.
  - viii) All work shall be governed by and construed according to Illinois law effective on the execution date.
- I) Written documentation of compliance with the requirements of subsections (b)(5)(B) through (H) shall be furnished to the Office of the State Fire Marshal by the owner of the permanently moored vessel. Such documentation shall be certified by a marine authority approved by the Office of the State Fire Marshal.
- J) Permanently moored vessels, when occupied as public assembly occupancies in accordance with definitions given in the Life Safety Code, shall:
- i) Be equipped with an on-board electrical generator, sized and installed so as to be capable of supplying emergency back-up power to any required fire alarm systems, fire suppression equipment, emergency lighting circuits, communication equipment, bilge pumps, or vessel propulsion equipment;
  - ii) At all times occupied by more than 50 occupants, be staffed by personnel trained to initiate shipboard/vessel firefighting and evacuation duties;
  - iii) In the event of an emergency that causes the vessel to be set adrift, be either capable of self-propulsion or be serviced by a tugboat or tender capable of controlling the vessel; and
  - iv) have fire alarm systems interconnected with fire alarm systems of adjacent occupancies if any of the required paths of egress from the adjacent occupancy traverse the permanently moored vessel or if the paths of egress from the permanently moored vessel traverse the adjacent occupancy.

The activation of either fire alarm system shall cause the other occupancy's fire alarm system to activate.

(Source: Amended at 27 Ill. Reg. 3360, effective April 1, 2003)