



# Federal Register

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**Tuesday,  
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**Part IV**

## **Department of Homeland Security**

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**Coast Guard**

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**46 CFR Parts 71, 114, et al.**

**Passenger Weight and Inspected Vessel  
Stability Requirements; Final Rule**

**DEPARTMENT OF HOMELAND SECURITY****Coast Guard**

**46 CFR Parts 71, 114, 115, 122, 170, 171, 172, 174, 175, 176, 178, 179, and 185**

[Docket No. USCG–2007–0030]

RIN 1625–AB20

**Passenger Weight and Inspected Vessel Stability Requirements**

**AGENCY:** Coast Guard, DHS.

**ACTION:** Final rule.

**SUMMARY:** The Coast Guard amends its regulations governing the maximum weight and number of passengers that may safely be permitted on board a vessel and other stability regulations, including increasing the Assumed Average Weight per Person (AAWPP) to 185 lb. The Coast Guard determines the maximum number of persons permitted on a vessel by several factors, including an assumed average weight for each passenger, which is in need of an update because the average American weighs significantly more than the assumed weight per person utilized in current regulations. Updating regulations to more accurately reflect today's average weight per person will maintain intended safety levels by accounting for this weight increase. The Coast Guard is also taking this opportunity to improve and update intact stability and subdivision and damage stability regulations.

**DATES:** This final rule is effective March 14, 2011, except for the amendments to 46 CFR 170.120 and 178.210 that have not yet been approved by the Office of Management and Budget (OMB). The Coast Guard will publish a document in the **Federal Register** announcing the date when those amendments become effective. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of March 14, 2011.

**ADDRESSES:** Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, are part of docket USCG–2007–0030 and are available for inspection or copying at the Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find this docket on the Internet by going to <http://www.regulations.gov>, inserting

USCG–2007–0030 in the “Keyword” box, and then clicking “Search.”

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this rule, call Mr. William Peters, U.S. Coast Guard, Office of Design and Engineering Standards, Naval Architecture Division (CG–5212), telephone 202–372–1371. If you have questions on viewing the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

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**I. Abbreviations**

- 2008 IS Code—International Code on Intact Stability, 2008
- AAWPP—Assumed Average Weight per Person
- ABS—American Bureau of Shipping
- CDC—Centers for Disease Control and Prevention
- CFR—Code of Federal Regulations
- COI—Certificate of Inspection
- DHS—Department of Homeland Security
- DOT—Department of Transportation
- EO—Executive Order
- FAA—Federal Aviation Administration
- FR—Federal Register
- GM—Metacentric height
- LBP—Length Between Perpendiculars
- LCG—Longitudinal Center of Gravity
- MARPOL—International Convention for the Prevention of Pollution from Ships
- MSC—Marine Safety Center
- MISLE—Marine Information for Safety and Law Enforcement
- NAICS—North American Industry Classification System
- NCHS—National Center for Health Statistics
- NEPA—National Environmental Policy Act of 1969
- NHANES—National Health and Nutrition Examination Survey
- NPRM—Notice of Proposed Rulemaking
- NTSB—National Transportation Safety Board
- OCMI—Officer in Charge, Marine Inspection
- OMB—Office of Management and Budget
- PSSC—Passenger Ship Safety Certificate
- PSST—Pontoon Simplified Stability Proof Test

- SBA—United States Small Business Administration
- SNAME—The Society of Naval Architects and Marine Engineers
- SOLAS—International Convention for the Safety of Life at Sea
- SST—Simplified Stability Proof Test
- U.S.C.—United States Code
- VCG—Vertical Center of Gravity

**II. List of Terms**

The following definitions are intended only as an aid to readers of this rulemaking, and are not defined in regulations. They are not intended to replace or otherwise change regulatory provisions in any way. Readers who are unfamiliar with stability or marine inspection terms are encouraged to access the definitions contained in regulations at 46 CFR 170.055 and 175.400, which are available to the public on line from the National Archives and Records Administration at, respectively, [http://edocket.access.gpo.gov/cfr\\_2009/octqtr/pdf/46cfr170.055.pdf](http://edocket.access.gpo.gov/cfr_2009/octqtr/pdf/46cfr170.055.pdf) and [http://edocket.access.gpo.gov/cfr\\_2009/octqtr/pdf/46cfr175.400.pdf](http://edocket.access.gpo.gov/cfr_2009/octqtr/pdf/46cfr175.400.pdf).

*Angle of heel* means the angle from the upright to the vessel's centerline when the vessel is inclined.

*Deadweight survey:* See *lightweight survey*.

*Freeboard* means the vertical distance from the deck edge to the waterline.

*Heel* is the degree to which a ship inclines transversely as a result of an applied force or moment.

*Heeling moment* is the product of a force acting through a distance that causes a vessel to roll or heel to one side.

*Inclining or stability test* is a methodical process that involves moving a series of known weights on a vessel and measuring the resulting change in the equilibrium heel angle to determine the vessel's stability characteristics.

*Intact stability* generally means the stability properties of a vessel without any damage to its watertight buoyant envelope.

*Lightweight survey* is a part of the stability test that is used to determine the lightship displacement and longitudinal center of gravity (LCG). Often referred to as a *deadweight survey*.

*Longitudinal center of gravity (LCG)* means the location along the vessel's length at which the total weight of the vessel may be assumed to act.

*Operator* means the person or business entity who provides operational instructions to and receives reports from the master of the vessel and is responsible for the vessel's

maintenance and repair, crewing, and other operations. An operator may also be a vessel's master.

*Owner* means the person or entity holding title to the vessel.

*Passenger heel* is the result of the heeling moment that occurs when passengers move to one side of the vessel's centerline, causing the vessel to heel.

*Pontoon vessel* means any vessel having two or more watertight hulls, which are structurally independent from the vessel's deck or cross structure.

*Subdivision and damage stability* means the stability characteristics of a vessel when damaged, generally focusing on flooding of watertight compartments.

*Vertical center of gravity (VCG)* means the height above the keel at which the total weight of the vessel may be assumed to act.

*Vessel stability* refers to the tendency of a ship to remain upright or return to upright when inclined by forces such as those caused by the action of waves, wind or passenger movement.

*Wind heel* refers to the result of the wind acting on the lateral area of the vessel above the waterline, causing the vessel to heel.

### III. Regulatory History

On August 20, 2008, the Coast Guard published a notice of proposed rulemaking (NPRM) entitled "Passenger Weight and Inspected Vessel Stability Requirements" in the **Federal Register** (73 FR 49243). The NPRM followed notices to the public, published in the **Federal Register** on April 26, 2006 (71 FR 24732) and November 2, 2006 (71 FR 64546), recommending voluntary interim measures for passenger vessel owners and operators to follow while the Coast Guard studied the issue of increased passenger weight. In summary, those voluntary measures advised owners and operators of pontoon vessels and other small passenger vessels to (1) more stringently monitor wind and wave conditions prior to departure, and (2) begin using 185 pounds as the new AAWPP when calculating passenger capacity. A discussion of how 185 pounds was chosen is contained in the April 26, 2006 notice and in the discussion of § 170.090 in this preamble.

Approximately 108 commenters responded to those notices and 66 commenters responded to the NPRM. All comments are posted for public view at <http://www.regulations.gov> under docket number USCG-2007-0030, and can be viewed by following the directions in the **ADDRESSES** section

of this preamble. No public meeting was requested and none was held.

The Coast Guard considered the comments submitted in response to the two 2006 notices in the drafting of both the NPRM and in this final rule. After publication of the NPRM, many of the comments on the 2006 notices became moot. Those comments to the notices that remain pertinent are repeated by later comments on the NPRM and are addressed in the Discussion of Comments and Changes section of this preamble, although they are not included in the comment count for each section.

### IV. Background

A number of different design factors, including stability, limit the total number of persons permitted on a passenger vessel inspected and certificated under 46 CFR subchapters H, K, or T. Stability requirements include intact stability for almost all vessels, as well as subdivision and damage stability, generally, for any vessel carrying more than 49 passengers and all passenger vessels over 65 ft in length. We intend this rule to clarify and update both intact stability regulations and subdivision and damage stability regulations, primarily related to the carriage of passengers for hire, and to update the weight per person used for all vessels. Further, the intent of this rulemaking is to prevent passenger vessels from operating in overloaded conditions. Although this final rule will become effective 90 days from today on March 14, 2011, the new Assumed Average Weight per Person (AAWPP) of 185 lb will not become effective until December 1, 2011.

A vessel's stability information, including any restrictions on route and the number of persons permitted, is provided to the vessel operator most often in the form of a stability letter issued by the Coast Guard's Marine Safety Center (MSC), and/or a Coast Guard Certificate of Inspection (COI) issued by the Officer in Charge, Marine Inspection (OCMI). When both are provided, the more conservative restrictions govern because, in that case, the regulations require the operator to comply with both (46 CFR 78.17-22, 122.315, 185.315). This stability information is issued after the vessel's stability has been evaluated.

For vessels greater than 65 ft in length, stability is evaluated through detailed design calculations, which are submitted to the MSC and identify the vessel's stability-related limitations. This process, which takes into account the assumed total weight of persons on

board, is described in 46 CFR, subchapter S, parts 170 and 171.

Vessels not greater than 65 feet in length and carrying less than 150 passengers normally undergo a performance test conducted in the presence of the Marine Inspector, instead of submitting design stability calculations to the MSC (46 CFR part 178). Vessels in this category consist of monohull vessels, powered catamarans carrying less than 49 passengers, and pontoon vessels operating on protected waters. This performance test, which also takes into account the assumed total weight of persons on board, is either a simplified stability proof test (SST) or, if the vessel is a pontoon vessel, a pontoon simplified stability proof test (PSST). The SST is used to evaluate the stability of monohull vessels and powered catamarans carrying less than 49 passengers, and the PSST is used to evaluate the stability of pontoon vessels operating on protected waters. Further, simplified subdivision calculations may be necessary for some vessels not greater than 65 feet in length.

Vessels to which these tests do not apply, or vessels that do not pass these tests, may need to be evaluated through design calculations to show that they meet minimum intact stability requirements. Alternatively, a vessel might satisfy stability requirements by complying with a standard acceptable to the Marine Safety Center. Finally, where stability may be safely assessed through other means, stability tests may be waived.

Vessel stability calculations and stability proof tests employ a number of assumptions and approximations to account for factors ranging from uncertainties associated with calculation procedures to variations in operating conditions. When originally developed, regulatory stability standards included an inherent margin of safety to account for these uncertainties and the current safety record of the passenger vessel industry reflects the validity of this approach.

The assumed weight of passengers is a component of stability calculations and stability proof tests and, as such, directly impacts the resulting margin of safety. Over time, as passenger weight increases, the inherent margin of safety decreases across all measures of stability, including vertical center of gravity, freeboard and passenger heeling moment, increasing the risk of stability problems. As described in the NPRM, the primary goal of the rule is to restore the margin of safety inherent in the vessel stability requirements that has

been eroded by increased passenger weight.

Section 178.330 of Title 46 of the CFR currently specifies that the AAWPP is 160 pounds, except that vessels operating exclusively on protected waters and carrying a mix of men, women, and children may use an AAWPP of 140 pounds per person. Section 171.080 uses a weight of 75 kilograms (165 pounds) per person for damage stability calculations. These weights were established in the 1960s, and have not been updated since.

In a report issued in October 2004, the Centers for Disease Control and Prevention (CDC) concluded that the average weight of an individual in the United States has increased significantly in the last 40 years, with the greatest increase seen in adults.<sup>1</sup>

On December 20, 2004, the National Transportation Safety Board (NTSB) issued Safety Recommendation M-04-04 (available in the docket), which included findings that the current 140 pound per person weight allowance for operations on protected waters does not reflect actual loading conditions. The NTSB recommended that the Coast Guard revise its guidance to OCMI's for determining the maximum passenger capacity of small passenger pontoon vessels either by: Dividing the vessel's assumed total weight of persons on board (total test weight) by 174 lb per person; or, restricting the actual cumulative weight of passengers and crew to the vessel's total test weight. In correspondence to the NTSB dated April 7, 2005 (available in the docket), the Coast Guard concurred that the average weight per person used in SSTs needed to be updated, and noted that an internal Coast Guard study identified the same issue. That study, which is entitled *Study of Effects on Commercial Passenger Vessels Due to Weight Standards*, is available in the docket.

Additionally, this rulemaking presents an opportunity to identify where corrections, clarifications, and updates need to be made to existing regulations. The Coast Guard discussed these changes, which include changes in international requirements, in the NPRM preamble, under "Corrections, Clarifications, and Updates."

## V. Discussion of Comments and Changes

The Coast Guard received no comments on the following sections of the proposed rule, and will adopt them

as proposed in the NPRM: §§ 71.75-1, 71.75-5, 115.112, 115.900, 115.910, 115.920, 115.930, 170.070, 170.075, 170.080, 170.085, 170.093, 170.100, 170.105, 170.120, 170.135, 170.160, 170.173, 170.175, 170.180, 170.185, 170.190, 170.235, 171.060, 171.065, 171.075, 171.082, 172.020, 172.070, 176.112, 176.900, 176.910, 176.920, 176.930, 178.115, and 179.220, as well as part 170 subpart E and part 171 subpart headings.

### Section 71.25-50. Stability Verification Annual Stability Information Verification

We received 27 comments concerning the proposed annual stability information verification in §§ 71.25-50(a), 115.505(a), and 176.505(a).

A majority of commenters expressed concern that the proposed regulations would be too costly and unjustified by risk. Eight commenters felt that simple calculations or loading marks should be an option that could be used in lieu of stability testing for verification, but one commenter said that draft marks would be very unreliable for passenger vessels less than 65 feet in length. Two commenters opined that all passenger vessels without a stability letter or other similar guidance should have stability tests conducted. Many commenters strongly preferred a risk-based method of determining the need for stability verification instead of the proposed approach. One commenter viewed the proposed annual stability information verification and the 10-year verification as redundant, and one supported adoption of the changes as proposed.

As we explained in the NPRM, the provisions in proposed §§ 71.25-50(a), 115.505(a) and 176.505(a) were intended to help ensure that the current assumed weight per person would be properly considered, and that vessels maintain safety levels after initial certification. Further, the provisions were intended to ensure not only that the proper weight standard had been applied to a particular vessel, but also that the Master is familiar with the stability-related operating restrictions, and has a reasonable means of determining if the vessel is in compliance at any given time.

After additional consideration, however, we determined that additional regulatory authority in this area is unnecessary because existing 46 CFR 71.17-22, 122.315, and 185.315 require masters to ensure their vessels comply with all applicable stability requirements at all times necessary to assure the safety of the vessel.

These existing sections provide the Coast Guard with the broad authority

and necessary flexibility to verify vessel compliance with applicable stability requirements. Accordingly, we have removed proposed §§ 71.25-50(a), 115.505(a), and 176.505(a) from the final rule.

### Verification of 10-Year Lightship Stability

We received 42 comments on the proposed 10-year stability verification in §§ 71.25-50(b), 115.505(b) and 176.505(b). All commenters, except one, opposed this part of the proposed rule for several reasons: Commenters expected it to be prohibitively expensive in some cases; the verification was perceived to be redundant with the annual stability information verification; commenters believed there is low risk of stability casualties associated with increased vessel weight; and, no study has been performed that identifies the degree to which passenger vessels tend to get heavier over time.

Five commenters suggested using load marks to verify that vessels are not overloaded and to check that the vessel's weight has not changed substantially. Fourteen commenters challenged the justification for the proposed requirement because of perceived low safety risk associated with vessel weight change. Sixteen commenters urged use of a risk-based process to trigger lightship verifications.

We have observed that the lightweight of some passenger vessels has increased substantially since the initial lightship characteristics were determined at the time of construction. This undocumented weight growth, caused by unapproved additions and modifications to the vessel, or by carriage of additional deadweight, could cause a vessel to exceed its authorized draft when loaded with the authorized complement of passengers. However, no unbiased study has been performed of the U.S. flag inspected passenger vessel fleet to assess the degree to which the lightweight of these vessels has increased, or identify segments of the fleet, if any, which have experienced significant weight growth. For these reasons, the Coast Guard agrees that further study is necessary before determining whether promulgation of additional regulations applicable to the fleet is necessary and we have removed the 10-year lightship verification provisions in proposed §§ 71.25-50, 115.505, and 176.505 from this final rule.

Baseline stability data, though, can and should be gathered as documenting this information will enable owners, operators and the Coast Guard to

<sup>1</sup> The report, *Advance Data From Vital Health Statistics Mean Body Weight, Height, and Body Mass Index, United States 1960-2002*, No. 347, October 27, 2004, is available in the docket.

monitor future growth in vessel weight. Accordingly, the Coast Guard intends to improve internal processes to accomplish this goal.

*Section 71.50-1. Definitions Relating to Hull Examination*

One commenter inquired about the necessity of verifying draft marks at each drydock examination if the draft marks are already permanent and properly located.

The datum used for draft marks is often the lowest navigational projection and may not have any relation to the drafts referred to in the stability information. The Coast Guard intends this part of the rule to ensure that draft marks, where used to verify compliance with stability requirements, were properly referenced in the stability guidance. Detailed marking drawings enable masters to properly associate draft marks with the draft or freeboard restrictions provided in the stability letter. The Coast Guard agrees that verification of draft marks does not need to be repeated at each drydock examination, and we revised §§ 71.50-1, 115.610, and 176.610 accordingly. Further, because the stability verification sections contained in the NPRM have been removed from this final rule, we have removed the proposed requirement to confirm that draft marks correspond with approved stability guidance.

*Section 114.400 Definitions of Terms Used in This Subchapter*

Although we received no comments on this section, we added a definition of "variable load" to improve its consistency and retain original intent.

*Section 115.110. Routes Permitted*

We received two comments concerning proposed changes to "Routes permitted." We proposed adding a new subparagraph to this section and § 176.110 explicitly calling attention to the OCMI's prerogative to consider a vessel's suitability for use in all environmental conditions.

One commenter stated that strong wind and waves challenge pontoon vessels to a greater degree than they do monohull vessels, and therefore the OCMI should place specific environmental limitations on certificates of inspection (COIs) for all such vessels. The Coast Guard disagrees. As we explained in the NPRM, it is not possible to accurately enumerate all combinations of safe environmental conditions on a given passenger vessel's COI. Further, limiting winds, speeds, and wave heights alone cannot adequately define a safe operating

envelope for any vessel. This regulation, however, does not preclude the OCMI from placing specific restrictions on any vessel's COI if clearly warranted for that vessel and route. Ultimately, the master must be responsible for determining whether or not to embark upon or continue a voyage or to seek shelter based on consideration of all relevant factors including prevailing and forecasted environmental conditions.

Another commenter recommended that OCMI should have the option to consider the experience of the passengers being carried. In support of this suggestion, the commenter stated that his vessel does not carry school groups or tourists but rather boat owners and their guests, who are generally familiar with vessel operating characteristics. We do not agree because passenger experience can neither enhance nor compensate for a domestic passenger vessel's operating characteristics or design limitations in a given environment, nor does such experience relieve a master from the obligation to exercise due diligence in operational decisions.

*Section 115.505. Stability Verification*

Please see the discussion of comments concerning the proposed annual stability information and ten year lightship verifications in § 71.25-50 of this preamble.

*Section 115.610. Scope of Drydock and Internal Structural Examinations*

Please see the discussion of comments concerning draft mark verification at drydock examinations in § 71.50-1 of this preamble.

*Section 122.304. Navigation Underway*

We received three comments concerning changes to the navigation underway regulations in this section and § 185.304. The Coast Guard proposed adding forecasted visibility and weather conditions to the list of factors to which vessel masters should give special attention in both sections, and a requirement in § 185.304 for vessels not greater than 65 feet in length to have means to obtain or monitor the latest marine broadcast.

Two commenters stated that new regulations are not necessary because their companies have always taken additional safety precautions in the event of rough seas or inclement weather, and also because a vessel's master knows it is prudent to check weather forecasts. We agree that giving special attention to environmental conditions is part of the due diligence required of a master prior to beginning a voyage. The changes we are making to

these sections are consistent with these responsibilities, and do not limit the exercise of a master's discretion in this area. Further, stating these responsibilities explicitly in regulations reinforces the need to monitor and give due consideration to forecasted conditions so appropriate decisions can be made in the face of changing environmental conditions.

One commenter stated this part of the proposed rule is nothing more than good marine practice since it would require the operator only to obtain the latest marine weather forecast and plan voyages accordingly. While we agree this is good marine practice, codifying it here reinforces its importance.

The same commenter also objected to continued use of "reasonable operating conditions" on a pontoon vessel's COI, instead of providing definitive operational guidance to each vessel's master by listing specific environmental limitations on the COI. The commenter believed this use of "reasonable operating conditions" may place passengers at unnecessary risk and recommended listing limiting environmental conditions on the vessel's COI.

In support of this recommendation, the commenter referred to an April 28, 2005 study conducted by a team of Coast Guard members and entitled, *Study on the U.S. Domestic Intact Stability and Subdivision Requirements for Twin Hull Pontoon Passenger Boats Less Than 65 Feet in Length*. That study included a preliminary recommendation that the Coast Guard consider restricting pontoon vessels with a COI based on a pontoon simplified stability test to operating in wind conditions not greater than Beaufort force 4 (16 knots of wind), but acknowledged the ramifications of implementing such guidance were unknown.<sup>2</sup>

After further consideration, and as we previously explained in response to comments on §§ 115.110 and 176.110, limiting environmental conditions on a vessel's COI in the manner suggested would neither be practical nor likely to effectively improve vessel safety. We no longer believe that the recommendation contained in the 2005 study is appropriate, because pontoon vessels come in all sizes, types and seakeeping abilities. An attempt to take a one-size-fits-all approach by specifying limiting environmental conditions for vessel operation, even if applied only to pontoon vessels, is fraught with difficulty and may well have unintended consequences. Many other conditions involving both the vessel and

<sup>2</sup> *Id.* at p. 37.

its environment must be constantly observed, monitored, interpreted and responded to by the master in order to evaluate the advisability of embarking on a voyage, or of continuing on a voyage when conditions progressively deteriorate. Masters are, and remain, responsible for evaluating all relevant factors in order to operate their vessels safely at all times.

*Section 122.315. Verification of Vessel Compliance With Applicable Stability Requirements*

We received nine comments on this proposed section, all of which related to draft and loading marks. Existing regulations require a vessel master to verify compliance with the stability letter and COI prior to departure. Operators have traditionally verified compliance with the COI by ensuring the count of passengers does not exceed that which is specified, rather than ensuring that the total permitted weight is not exceeded.

To prevent overloading, this final rule requires a master to consider the total weight of passengers and all variable loads prior to getting underway. This can be accomplished through the verification of draft or load marks. Acceptable alternatives include adding the weights or estimated weights of each individual passenger, or multiplying the passenger count by the current AAWPP or another value accepted by the OCM and representative of the weight of passengers and crew aboard the vessel.

One comment suggested requiring a loading mark on the side of the vessel. The Coast Guard agrees that this is a viable method for many vessels, but also concurs with other commenters that due to inaccuracies involved in reading such marks, this method may only identify gross overloading situations, depending on the size of the vessel and the weather conditions. Because of these limitations, other options are also acceptable, as discussed above.

One comment stated that small passenger vessel masters are not sufficiently trained for stability checks beyond ensuring the passenger count is within the limit on the COI, and that maximum drafts have not been exceeded. This level of training, however, does not preclude masters from complying with this regulation. Possible compliance options include checking draft marks or multiplying the passenger count by the current AAWPP, which are skills a small passenger vessel master should possess.

Four comments objected to using draft marks because environmental factors and mooring arrangements often make the marks difficult to read, which may

cause delays in departures. We disagree. Existing regulations take these difficulties into account and require alternative arrangements to determine vessel drafts. Both §§ 122.602 and 185.602 require certain vessels over 65 feet in length to be fitted with a reliable draft indicating system from which the bow and stern drafts can be determined where the draft marks are obscured due to operational constraints or by protrusions.

Two comments expressed concern that small changes in draft could disproportionately affect passenger count, and movement of passengers during loading would make reading draft or loading marks difficult. The Coast Guard recognizes that movement of passengers may inhibit accurate draft or loading mark verification. In these circumstances, where vessels are nearing their maximum allowable drafts and concerns about accuracy exist, operators may wish to employ additional tools to verify compliance as previously discussed.

One comment suggested that the Coast Guard consider options other than checking drafts that an operator may use to verify a vessel is not overloaded. As discussed in the preamble to the NPRM, the Coast Guard agrees. The commenter recommended various methods in three categories: Load marks, weight measurement, and weight estimation. The Coast Guard agrees, that use of the methods proposed by the commenter could satisfy this section of the rule.

The same commenter also proposed the use of several physical methods to measure passenger weight prior to loading. These methods are described in detail in document number USCG–2007–0030–0208.1, which can be viewed; this document is available in the docket by following the directions under the **ADDRESSES** section of this preamble. OCMs will generally consider physical methods that accurately measure or estimate passenger weight to be acceptable means for satisfying the requirements of this section.

*Section 122.602. Hull Markings*

We received 12 comments on proposed requirements for vessels that comply with subchapter S to have loading marks or draft marks. This section expands existing applicability of the requirement to have draft marks to passenger vessels less than or equal to 65 feet in length if their stability compliance was determined in accordance with subchapter S instead of a simplified stability test.

Two comments supported requiring loading marks as a means to verify

compliance. For the reasons discussed below, we agree.

One commenter stated that draft marks are impractical on smaller vessels and suggested viewing the boot stripe as a means to determine if a vessel is overloaded. The Coast Guard does not agree. In most cases, due to trim restrictions, a vessel's bootstripe is not a sufficiently accurate measure to verify compliance with stability criteria unless it is referenced as a loading mark on a stability letter.

One commenter suggested that load marks be required where draft marks are not measured to a vessel's baseline. The Coast Guard partially agrees in that §§ 115.610 and 176.610 now require any operating restrictions associated with stability information to correspond to draft or loading marks. Draft marks must be shown to be in compliance with those sections, but loading marks are also an acceptable option.

Four comments objected to requiring draft marks because docking arrangements, wakes, and constant waves often make the marks difficult or impossible to read. The Coast Guard acknowledges these conditions often make the use of draft or loading marks difficult, but they do not prevent the need for a draft or loading mark requirement. Existing regulations take these difficulties into account, and permit alternative arrangements to determine vessel drafts. As we discussed in § 122.315 of this preamble, §§ 122.602 and 185.602 currently require certain vessels over 65 feet in length to be fitted with a reliable draft indicating system from which the bow and stern drafts can be determined when the draft marks are obscured due to operational constraints or by protrusions.

Four comments expressed concern over accuracy of draft marks when weight changes lead to draft changes of less than an inch. While use of draft marks or a draft indicating system may not always be the best way to satisfy the requirements and intent of §§ 122.315 and 185.315, it is a valuable tool to assist the master in determining compliance with draft and freeboard restrictions contained in the vessel's stability information. If there is concern about the accuracy of draft readings as a vessel approaches its maximum draft or full load of passengers, operators should employ additional tools to ensure vessels are not overloaded, such as ensuring their assumed weight per person is truly representative of the passengers and crew aboard.

*Section 170.001. Applicability*

We received no comments on this section, but added the word "Either" after paragraph (a)(1) to improve the clarity of the provision.

*Section 170.015. Incorporation by Reference*

One commenter recommended leaving year designations out of citations to ASTM standards in this section and suggested the most current version of a standard should be used. The Coast Guard agrees in part and has revised the rule to remove year designations from provisions other than the centralized incorporation by reference (IBR) sections. However, the regulations covering IBR require that we provide the year of each standard incorporated in centralized IBR sections (1 CFR part 51).

Also, when we considered the options available for the incorporation by reference of the new SOLAS subdivision and damage stability requirements contained in chapter II-1, we realized that a consolidated SOLAS text that accurately contains these requirements is not available. Instead, reference to the IMO resolution that adopted the new requirements would be the most direct way to incorporate the new provisions in the final rule. As a result, the incorporation by reference sections and the sections incorporating the new SOLAS requirements have been changed to refer to IMO Resolution MSC.216(82), which contains the full text of SOLAS chapter II-1, parts A, B, B-1, B-2, B-3, and B-4 (sections 170.015, 170.140, 170.248, 171.001, 171.012, 171.080, 174.007, 174.360, 179.15, and 179.212).

*Section 170.055. Definitions Concerning a Vessel*

This section has been modified to include a definition of Assumed Average Weight Per Person (AAWPP), which is discussed in § 170.090, and to correct a deficiency in the definition of "lightweight". When the Coast Guard proposed the creation of subchapter S in 1982, the NPRM indicated the definition of "lightweight" was to be the same as that in 33 CFR 157.03.<sup>3</sup> However, the words "the displacement of a vessel" were inadvertently omitted from the definition in the final rule.<sup>4</sup> Because the definition of this term should be the same in both titles of the CFR, this final rule corrects the earlier omission.

Since the Coast Guard received no comments on this section as published in the NPRM, the proposed definition of

"constructed" has been adopted in this final rule.

*Section 170.090. Calculations*

Discussion of comments in this section has been divided into subsections on the increase in the AAWPP, the new AAWPP effective date, the process for documenting compliance, and updates to the AAWPP.

*Increased Assumed Weight per Person*

The Coast Guard received 55 comments on the proposal to increase the assumed weight per person to 185 lb. Of those, 40 supported using 185 lb as the new Assumed Average Weight per Person (AAWPP). We agree, and this final rule contains an AAWPP of 185 lb.

Two commenters advocated an AAWPP of 187 lb because the most recent Centers for Disease Control and Prevention (CDC) report, which was issued after publication of the NPRM, showed an increase in average American weight of approximately two lb since the previous report. Using the AAWPP proposed in the NPRM, however, is strongly preferred for the following reasons:

The Coast Guard understands the passenger vessel industry has been, and is, planning for implementation of a 185 lb AAWPP, and increasing that number at this time would disrupt implementation of what is already a challenging transition. If the marginal safety improvement to be realized from a further two lb increase was significant, the cost-benefit analysis of these alternatives might be different. But it is not—a two lb increase from 185 is approximately 1%, which would produce a negligible draft change even on a small vessel. This very small additional improvement in stability is an insufficient reason to disrupt business plans and vessel modifications essential to the implementation of this final rule. Public safety is not enhanced when implementation of the change from the obsolete assumed weight of 140 lb to a weight closely approximating the actual average American weight is delayed by moving the target at this late date to incorporate relatively insignificant changes.

Additionally, as is also discussed under AAWPP updates, the AAWPP will not be updated until the procedure in § 170.090 produces a value at least 10 lb greater than the effective AAWPP. If current trends in the growth of Americans' weight continue, the next increase in the AAWPP would occur sooner if 185 lb is used in the regulation at this point than it would if 187 lb is used. Although a minor difference exists

between the new AAWPP and the body weight data in the most current NHANES report, that difference will be eliminated when the 10 lb stability risk threshold is met and the AAWPP is next updated.

Several commenters also questioned why the Coast Guard did not include different AAWPPs for protected and unprotected waters in the regulation. Many were also concerned that a single AAWPP would not adequately account for passenger groups with a high percentage of children. Others recommended that stability guidance simply refer to the total weight of people a vessel would be permitted to carry and that the master would then have the responsibility to limit loading to that number by weighing everyone on board, using load lines or a draft indicating system or, as is possible with amphibious craft, weighing the vessel.

Several of these commenters also recommended that OCMIs be vested with authority to take route, passenger group composition, and other relevant circumstances into account when assessing vessel stability. The Coast Guard agrees, and notes that OCMIs currently have the authority and responsibility to take all relevant factors into account when evaluating vessel stability.

With regard to the question of preserving a separate, lower AAWPP for vessels operating exclusively on protected waters, and carrying a passenger load consisting of men, women and children, the Coast Guard does not concur. The weight of an average American is independent of the route, and existing regulations already include reduced stability requirements for protected routes. Additionally, as explained in the NPRM, this rule incorporates provisions that allow the OCMi to consider and approve another assumed weight per person based on an alternative mix of passengers.

One of the more important parts of this rule is the principle, embodied in § 170.090(c), that "[t]he assumed weight per person for calculations showing compliance with this subchapter must be representative of the passengers and crew aboard the vessel while engaged in the service intended." Although 185 lb will be the minimum default AAWPP until later updated, the Coast Guard emphasizes that the same paragraph also provides the OCMi the authority to permit the use of other values when deemed appropriate.

This principle, and the authority explicitly granted to OCMIs to assure passenger vessel stability in accordance with that principle rather than by rigidly applying a single AAWPP

<sup>3</sup> 47 FR 35090 at 35092 (Aug. 12, 1982).

<sup>4</sup> 48 FR 50996 at 51011 (Nov. 4, 1983).

regardless of circumstances, should result in reasonable assumptions regarding the average weight of people aboard each vessel. Where an owner or operator has a passenger group with a large number of children, or can show some other reason that applying the AAWPP does not result in a load limit representative of the passengers and crew aboard the vessel while engaged in the service intended, the OCMIs has the authority to approve use of an average weight less than the AAWPP that more accurately represents the actual passenger load on a case-by-case basis.

Three commenters stated that increasing the AAWPP to more closely match the average American's weight will produce no improvement in safety. We disagree. The 45-lb difference between the current AAWPP for vessels operating on protected waters with a mixed passenger load and the weight of an average American is likely to result in a 24% underestimation of passenger load. Using an AAWPP that is as close as practicable to the actual average passenger weight is the most effective way to protect against vessel overloading and to restore the margin of safety intended in existing stability criteria.

One commenter was concerned that the proposed increase in the AAWPP might be inconsistent with the International Maritime Organization's (IMO) standard assumed passenger weight. The 1974 International Convention for the Safety of Life at Sea (SOLAS) used an assumed weight per person, set in 1990, of at least 75 kg (approximately 165 lb) for damage stability calculations.<sup>5</sup> Additionally, the IMO Intact Stability Code uses an assumed passenger weight, established in 1963, of at least 75 kg for intact stability calculations.<sup>6</sup>

Although this final rule establishes an AAWPP greater than the minimum international requirements, the higher AAWPP used in loading calculations is necessary for safety reasons because the AAWPP more closely approximates the actual average American weight. While the AAWPP is based on recent CDC studies of the US population, the current international standards were set in 1990 and 1963 respectively and based on worldwide data not representative of the U.S. population. Rather than being inconsistent with international standards, the AAWPP complies with

those standards by exceeding their minimum requirements.

One commenter stated the NPRM's use of a single AAWPP would be inconsistent with an assumption in the U.S. Coast Guard *Study of Effects on Commercial Passenger Vessels Due to Increasing Passenger Weight Standards in the Code of Federal Regulations*, dated May 19, 2005. The Coast Guard disagrees. The study was conducted based on the assumption, among others, that "[t]he current method of reducing passenger weight for vessels operating on protected waters and carrying men, women and children was not used." Further, the study was not referring to the NPRM, which post-dated the study.<sup>7</sup>

The same commenter pointed out that the study recommended "the Coast Guard should investigate whether vessels that operate solely on protected waters should be subject to a reduction factor based on operational constraints which may be stipulated in the Certificate of Inspection."<sup>8</sup> As the study itself stated, "[t]he results of this initial analysis are preliminary\* \* \*." Additionally, after further consideration, the Coast Guard concluded that passenger vessel stability assessments would be conducted more efficiently and accurately by adopting a single AAWPP and relying to an extent, as we have in the past, on OCMIs to take varying factors into account, instead of complicating the regulations with exceptions that may be overly broad or not well tailored to realities in the field.

One commenter questioned the basis for a clothing allowance of 7.5 lb, particularly in view of seasonal differences. Although we recognize seasonal and regional variations in clothing weight, we determined that 7.5 lb is a reasonable approximation of the average weight of clothing based on the FAA Advisory Circular 120-27E, paragraph 210, dated June 10, 2005.

Two commenters supported an increase in the AAWPP, but expected the increase to cause an adverse financial impact. Please see the Regulatory Assessment in part VI of this preamble for a discussion of the expected costs associated with this rule. Although the rule will have some economic impact on some vessels, use of a realistic AAWPP is essential to prevent overloading and protect the public.

One comment pointed out that in proposed § 178.330(b), in the formula for Mp, units for the term "W" should

be in pounds (kilograms). We agree and have corrected the final rule.

#### *The Initial AAWPP Effective Date*

We received 31 comments on the length of a phase-in period for the AAWPP. This period would determine the date by which each vessel would have to comply with the final rule and subsequent AAWPP updates. As proposed in the NPRM, the new AAWPP would become effective 90 days after publication of the final rule, and vessel owners and operators would be required to demonstrate compliance at the next annual inspection. Only one commenter supported these proposals.

Several commenters supported differing time periods for phasing in the requirement for existing vessels to comply with the new weight standard. Seventeen advocated five to five and a half years. One recommended a four year period. Two proposed a two year period, and three supported a one year phase-in, one of which suggested one operating season as an alternative. Several advocated using risk-based methods to address the highest risk vessels first. Nine comments did not propose a phase-in period, but agreed with the majority of other comments that it would be infeasible for all operators to assess stability and for the Coast Guard to revise stability letters or amend Certificates of Inspection associated with implementing a new AAWPP within a year after publication of the final rule.

Several commenters made the point that business plans, booked charters, ticket prices, rate settings, and interactions with government agencies other than the Coast Guard can be affected by changes in passenger capacity. One commenter noted that group charters are reserved up to a year in advance. The Coast Guard agrees that the need to bring the AAWPP up to date must be balanced with the practical effects of implementing the change on vessel owners and operators. For this reason, the Coast Guard does not agree with the commenter who advocated implementing the new AAWPP immediately.

Making the initial AAWPP effective on December 1, 2011 will provide owners and operators an operating season in which to plan, allocate revenues and costs, and prepare for the new requirements. Further, nearly all commenters on this subject emphasized that failure to afford a reasonable implementation period would cause them financial hardship. For these reasons, a period of approximately one year leading to the AAWPP effective date represents a necessary balance

<sup>5</sup> SOLAS, Ch. II-1, Regulation 7-2, para. 4.1.1; International Maritime Organization (IMO) Maritime Safety Committee (MSC) Resolution MSC.194(80), Annex 2.

<sup>6</sup> International Code on Intact Stability (IS Code), para. 3.1.1.1; IMO MSC Resolution MSC.267(85), Annex 2.

<sup>7</sup> *Id.* at p. 4.

<sup>8</sup> *Id.* at p. 19.



between implementing a new AAWPP as quickly as possible to protect public safety, and providing a reasonable amount of time for owners and operators to adjust their operations. All subsequent AAWPP updates will become effective one calendar year after public notice.

Many commenters also maintained that at least five years would be necessary to assess stability and accomplish the documentation associated with implementing a new AAWPP throughout the affected fleet because of an insufficient supply of naval architects and Coast Guard personnel. We agree that the rule, as proposed, would have required more than a year to fully implement. However, as discussed in § 71.25–50 of this preamble, provisions in the NPRM proposing annual stability information verifications have not been included in this final rule. Additionally, the Coast Guard's regulatory analysis and studies show that some vessels may only need an update or revision of their stability letters and COIs, and may not require a stability test as a result of this rule. Further, as we discuss in greater detail below in the section on documenting compliance, many owners and operators will be permitted to certify compliance with stability requirements for a total weight of passengers and crew associated with the new AAWPP and will not need new documentation before operating in accordance with this certification. Because we gave notice of our intent to update the average weight, and emphasized managing total weight in our April 2006 notice of voluntary compliance, owners and operators received sufficient time to prepare for the updated AAWPP. For these reasons, a period longer than approximately one year leading to the new AAWPP's effective date is not warranted.

Although the Coast Guard is unable to predict the amount of time necessary to revise stability letters or amend Certificates of Inspection, no commenter presented, and the Coast Guard is not aware of, any compelling reason for the effective date of the new AAWPP to be delayed until documentation is complete. However, the Coast Guard realizes the time needed to complete documentation for all vessels will likely exceed the approximate one year period prior to the effective date, and documentation will be completed as available resources permit.

Accordingly, beginning December 1, 2011, passenger vessel owners and operators must ensure that the total weight of passengers, crew, and variable loads does not exceed the total weight for which stability has been

satisfactorily evaluated. The total permitted weight is often based on a maximum number of persons in association with an AAWPP of 185 lb or another weight approved in writing by an OCMI. It should be emphasized that, while this final rule will become effective 90 days from today on March 14, 2011, the 185 lb AAWPP will not become effective at the same time. Under § 170.090 of this final rule, the initial AAWPP issued pursuant to the provisions of that section, which will be 185 lb, will become effective on December 1, 2011.

Subsequent AAWPP updates will normally be issued as interpretive rules without further rulemaking procedures and will become effective one calendar year after publication of a notice in the **Federal Register** unless an earlier effective date is necessary for urgent public safety reasons. The Coast Guard reserves the authority, however, to update the AAWPP using notice and comment rulemaking procedures, and to delay or dispense with any update of the AAWPP. In the event the Coast Guard elects to dispense with or delay an update, the Coast Guard will inform the public of the decision and explain the reasons in a **Federal Register** notice.

#### *Process for Documenting Compliance*

Beginning on December 1, 2011, each passenger vessel must be in compliance with stability criteria based on the new AAWPP of 185 lb or another weight approved in writing by the cognizant OCMI. If the Coast Guard has not issued a stability letter associated with the new AAWPP or greater average weight, or the Coast Guard has not confirmed that existing stability guidance is acceptable relative to the new AAWPP, then the owner or operator must certify to the OCMI that the vessel complies with applicable stability requirements. Certification of stability compliance by an owner or operator means that—

(1) The owner or operator has provided a written statement to the OCMI together with documentation clearly supporting the total weight and number of passengers and crew permitted to be carried at the new AAWPP; and

(2) A copy of this information has been provided to the MSC if the vessel is a pontoon vessel or demonstrates compliance with the provisions of subchapter S.

In each case, a copy of the vessel's current stability letter should be included with the documentation.

Owners and operators must provide the documentation referred to in paragraph 1 above to the OCMI, in writing, not later than December 1,

2011. Pending the effective date of this regulation, owners and operators are encouraged to voluntarily comply with the new AAWPP as soon as practicable.

A number of options exist for this certification, including but not limited to the following:

(1) *Weight ratio*. The simplest method for demonstrating compliance with the new AAWPP requirement is to reduce the total passengers and crew permitted by existing stability guidance to a number not greater than the former passenger and crew capacity multiplied by the ratio of the old assumed weight per person (the assumed weight per person the current stability guidance was based on) to the new AAWPP. If documentation of the old assumed weight per person is not available, the most conservative existing weight per person commensurate with the vessel's service should be assumed.

In formula, this means:

New passenger and crew capacity = existing passenger and crew capacity × old assumed weight per person/new AAWPP.

(2) *Weight compensation*. A method to demonstrate compliance with the new AAWPP requirement available to vessels carrying either deck or vehicular cargo in addition to passengers is to reduce the cargo weight carried by an amount equal to the difference between the total permitted weight of passengers and crew associated with the new and old AAWPPs. Owners or operators who opt to proportionally reduce cargo capacity would see no reduction in passenger capacity.

(3) *Direct verification*. The owner or operator ensures that the total weight of persons loaded aboard the vessel does not exceed the total permitted weight of persons associated with the existing stability guidance. For vessels that have undergone an SST, this is the total test weight. The method by which the owner or operator ensures the total weight does not exceed the limiting value may include weighing of all persons on board or another method accepted in writing by the cognizant OCMI.

(4) *Stability calculations*. The owner or operator may prepare or have prepared revised stability calculations demonstrating that the vessel complies with applicable stability requirements when loaded with persons at the new AAWPP. These calculations may use the results of previous or new stability tests. New stability tests associated with revised stability calculations must be conducted in the presence of a Coast Guard Marine Inspector.

(5) *New stability proof tests*. The owner or operator may choose to conduct a new SST or PSST to

demonstrate compliance with the same number of passengers and crew at the new AAWPP. New SSTs must be conducted in the presence of a Coast Guard Marine Inspector.

The number of passengers permitted aboard small passenger vessels is also limited by the criteria listed in §§ 115.113 and 176.113: Length of rail, deck area, or fixed seating. As the total test weight for these vessels is typically determined with consideration of that restriction, it may be possible for a vessel to continue to carry close to, if not the same, number of passengers at the new AAWPP. Adequate stability in this regard will, however, still need to be determined by either method (4) or (5). Vessels for which the Certificate of Inspection restricts the number of passengers carried to a number significantly less than that indicated in the stability guidance may have little or no reduction in passenger capacity.

Owners and operators who determine that their vessel will incur no reduction in the total number of passengers and crew permitted still must certify to the OCMI that there will be no impact on the total passenger and crew capacity, and must develop sufficient documentation to support their findings.

The Coast Guard will verify the owner or operator's certification that the vessel meets stability requirements based on a total weight at the new AAWPP no later than the vessel's next annual inspection following December 1, 2011. Stability letters will be revised and Certificates of Inspection will be amended as needed and as Coast Guard resources permit. Owners and operators of vessels with stability letters issued by the MSC or a Coast Guard District must submit this certification information to the MSC, with a copy to the OCMI, who will review and issue a new stability letter as appropriate. Pending revision of these documents, owners and operators must still comply with the provisions of this regulation and ensure that their vessels are not overloaded.

Owners and operators should keep appropriate copies of this documentation aboard their vessels as evidence of compliance after the new AAWPP becomes effective, pending receipt of revised stability letters. Additional information and or tests as appropriate may be required by the OCMI or Commanding Officer, Marine Safety Center if the OCMI questions the vessel's stability.

#### *Subsequent AAWPP Updates*

We received 36 comments addressing the subject of how the AAWPP would be updated. Instead of promulgating

future updates without further rulemaking procedures, as proposed, 23 commenters advocated updating the average weight only when a threshold corresponding with significantly increased safety risk is met. One commenter suggested a threshold of 3% of the current assumed weight, another supported a value between 3 and 5%, and another recommended 5% or more. Fourteen commenters felt this matter should be re-addressed in a supplemental rulemaking entirely, and ten commenters believed that updates should only occur through notice and comment rulemakings. Only one commenter supported this part of the proposed rule as written.

As noted above in the discussion of this section, 55 comments were submitted on the proposal to increase the AAWPP and 40 of those supported the proposed change. As we explained in the NPRM, and as a substantial majority of commenters agreed, the AAWPP must be increased because it is no longer consistent with the average American passenger weight, and a significant risk of overloading passenger vessels exists without an increase.

The same reasons strongly support inclusion of a mechanism in regulation that maintains an up-to-date AAWPP over time. With such a mechanism, the AAWPP will be updated to reflect changes in the American population's weight in the most efficient manner practicable. The current disparity between the AAWPP prescribed in regulations and the average American weight would have been much less likely to develop if an updating mechanism had been previously included in regulations. Advantages in public safety and use of Coast Guard resources make inclusion of such a mechanism the better choice.

Additionally, use of such a mechanism to update objective numerical values based upon data issued by an authoritative source is not unusual. As one example, Federal agencies, including the Coast Guard, commonly keep their regulations consistent with the current consumer price index using similar methods. In those cases and in this rulemaking, the Bureau of Labor Statistics and the National Center for Health Statistics are widely recognized as the leading authoritative sources of statistics in their respective fields.

Under these circumstances, and in light of the strong public policy interests served by keeping the AAWPP current, notice and comment rulemaking procedures are not expected to be required by law for every update. In the future, the Coast Guard anticipates it

will periodically update the AAWPP for purposes of 46 CFR 170.090 by interpreting the term to keep it consistent with the current average American weight as reported by NHANES. The Coast Guard will justify an interpretive rule each time it is published in the **Federal Register**, and conduct a notice and comment rulemaking if a particular update would not qualify as interpretive because of future circumstances.

At the same time, the Coast Guard recognizes the need of vessel owners and operators for a reasonable degree of predictability in the rate of change to the AAWPP, and agrees with commenters who advocated that future updates should be tied to a risk-based threshold. For these reasons, the Coast Guard added a provision to this final rule that permits an increase in the AAWPP through an interpretive rule only when CDC data yield an AAWPP that differs by at least 10 lb from the AAWPP then in effect. The rule also permits the Coast Guard to conduct rulemaking procedures at any time.

The Marine Safety Manual and the International Code on Intact Stability, 2008 (2008 IS Code) require stability testing when a vessel's lightship displacement changes more than 2 percent.<sup>9</sup> Although these standards address changes in lightship displacement as a threshold for conducting stability evaluations, this concept is also useful in this context when applied to changes in total displacement. A 10-lb threshold on AAWPP changes corresponds to 5 percent of the new 185-lb AAWPP. Considering that passenger weight is only a portion of a passenger vessel's displacement, however, a 5 percent change in the passenger loads typical of many small passenger vessels results in a total displacement change of approximately 2 percent. For this reason, a 10-lb threshold for AAWPP updates is a reasonable approximation of an established risk threshold. Although future changes in average American weight are unknown, a 10-lb threshold is likely to provide vessel owners and operators a more stable AAWPP than provisions proposed in the NPRM.

Additionally, the Coast Guard recognizes that unforeseen events may make implementation of an AAWPP update without further rulemaking

<sup>9</sup> COMDTINST M16000.9, *Marine Safety Manual*, Vol IV, § 6.D.4; Marine Safety Center Technical Note, *Lightship Change Determination, Weight-Moment Calculation vs. Deadweight Survey vs. Full Stability Test*, 11 May 1995; and, 2008 IS Code, para. B/8.1.5, IMO MSC Resolution MSC.267(85), Annex 2.

procedures contrary to public interest. To preclude the possibility of such an update proceeding automatically, a provision has been added preserving the Coast Guard's flexibility to dispense with or delay any update that would otherwise issue as an interpretive rule without further rulemaking procedures. Similarly, a provision has been added to explicitly maintain the Coast Guard's prerogative to conduct a rulemaking at any time to amend the AAWPP or any other part of CFR Title 46. With these provisions, the Coast Guard will ensure that AAWPP updates issued as interpretive rules without further rulemaking procedures are reasonable in light of circumstances existing at the time and will protect the public.

Two commenters suggested tying future updates to a fixed time period such as 10 or 20 years. We disagree. Although an update every ten years would likely be appropriate if past trends continue, there is no assurance that Americans' weight will continue to increase at the same rate in the future. Updating the AAWPP when reliable data show average weight has changed significantly will result in a more accurate AAWPP over time.

One commenter pointed out that proposed § 170.090(e) used the mean weights of adults "20 years and over" to calculate the AAWPP, while the discussion of this subject in the NPRM preamble used the weights of adults "between 20 and 74 years old." This commenter also advocated using the latter age range because the commenter expected that using the former would bias the AAWPP downward.

The CDC changed the reporting of American weight data after publication of the NPRM, and mean weights of adults aged 20 to 74 years are no longer provided in NCHS reports. Further, in the absence of any data showing that inclusion of those over 75 would produce a less accurate AAWPP, it is not clear that doing so would bias the standard. The different age ranges in the NPRM preamble and regulatory text resulted from that change in CDC reporting.

One commenter observed that the update procedures described in the NPRM represented a zero risk approach and would greatly limit the Coast Guard's flexibility in updating the AAWPP. We agree, and therefore have added a provision explicitly maintaining the Coast Guard's prerogative to conduct a rulemaking in this area at any time. The CDC will publish data, which will be used according to the procedure in § 170.090 to produce an AAWPP as close as reasonably practicable to the actual

average American passenger weight. An AAWPP differing at least 10 lb from that in effect at the time will become effective pursuant to the provisions of this final rule unless the Coast Guard decides to postpone or delay the update or to conduct further rulemaking procedures.

#### *Section 170.140. Applicability*

See the discussion of changes in § 170.015 of this preamble.

#### *Section 170.165. International Code on Intact Stability*

We received no comments on this section of the NPRM. After further consideration, however, the Coast Guard determined that the proposed provisions in §§ 170.248, 171.001 and 179.212 would inadvertently terminate acceptance by the Coast Guard of compliance by certain vessels with 46 CFR, subchapter T, in lieu of the stability requirements of SOLAS Chapter II-1. Because the Coast Guard did not intend such termination, we revised §§ 170.165, 170.248, 171.001, 171.070, and 179.212 of this final rule to preserve the existing equivalence for certain small passenger vessels operating on international voyages 20 miles or less from the nearest land.

#### *Section 170.170. Weather Criteria*

Eight comments were received concerning reformulation of the wind and passenger heeling requirements contained in §§ 170.170 and 171.050. Four commenters believed these proposed changes were beyond the appropriate scope of a rulemaking focused on passenger weight, regardless of their merit, and suggested this matter be dealt with in a separate rulemaking. One commenter suggested the proposed rule change be applied only to vessels built after the rule takes effect, while existing criteria would continue to apply to vessels built prior to the effective date. One commenter cautioned that the changes to § 170.170 would affect all inspected vessels, all load lined uninspected vessels and, potentially, existing vessels that comply with current criteria. One commenter supported the proposed change to the criteria and explained that assessment of compliance based on a calculated equilibrium heel angle is more accurate than the existing, simplified calculation based on upright metacentric height (GM) (e.g., at zero heel angle).

While the Coast Guard agrees that the assessment of compliance based on a calculated equilibrium heel angle is more accurate than the existing, simplified calculation, we also concur that additional study of the effects of the

proposed changes to § 170.170 on the existing fleet is required prior to implementing these criteria. Accordingly, we have removed the proposed changes to § 170.170 from the final rule.

However, for the reasons discussed in the NPRM, we have modified § 170.170 to clearly indicate the limitation of the existing criteria to those conditions for which the formula is valid and reflect the requirement for additional calculations—generally addressed by demonstrating compliance with § 170.173—for vessels of unusual proportion and form.

One commenter pointed to a typographical error in the proposed rule for § 170.170(a)(2). While we agree, modifications to this section have been removed from the final rule.

#### *Section 170.248. Applicability*

See the discussion of changes in §§ 170.015 and 170.165 of this preamble.

#### *Section 171.001. Applicability*

See the discussion of changes in §§ 170.015 and 170.165 of this preamble.

#### *Section 171.045. Weight of Passengers and Crew*

See the discussion of changes to the AAWPP in § 170.090 of this preamble.

#### *Section 171.050. Passenger Heel Requirements for a Mechanically Propelled or a Non-Self Propelled Vessel*

Eight comments were received concerning reformulation of the wind and passenger heeling requirements contained in this section. Four commenters believed these proposed changes were beyond the appropriate scope of a rulemaking focused on passenger weight, regardless of their merit, and suggested this matter be dealt with in a separate rulemaking. With respect to proposed changes to § 171.050 and the proposed new section on passenger crowding in § 171.052, one commenter suggested that it would be more precise and simpler to develop a single passenger heel criteria by combining the two sections. This commenter advocated criteria based on a vessel's actual stability performance, use of an appropriate passenger loading density, and residual righting energy margins. The Coast Guard concurs; however additional study of the effects of passenger loading densities and residual righting energy margins is required prior to implementing performance-based criteria for non-pontoon vessels and possibly combining § 171.050 and § 171.052. Accordingly,

we have removed the proposed provisions in this section of the final rule.

Instead, this section of the final rule retains provisions in existing regulations concerning simplified calculation of metacentric height and the proposed provisions concerning the 2008 IS Code.

For the reasons explained in § 170.170 of this preamble and in the NPRM, we have also modified § 171.050 to clearly indicate the limitation of the existing criteria to those conditions for which the formula is valid and reflect the requirement for additional calculations—generally addressed by demonstrating compliance with § 170.173—for vessels of unusual proportion and form.

*Section 171.052. Passenger Heel Requirements for Pontoon Vessels*

Ten comments were received on the proposal for passenger crowding criteria. While acknowledging the motivation for this proposal, no commenter supported the proposal as written in the NPRM. All commenters advocated withdrawing the proposal to permit further investigation, and urged a careful approach to resolving this apparent safety gap.

Four commenters indicated that the passenger crowding study on which the proposed regulation was based only considered small vessels and was not sufficiently rigorous to serve as a basis for regulations applying to larger vessels. Two commenters questioned the use of passenger fraction as a basis for application of passenger crowding criteria. Those commenters also argued that the results of the pontoon study support the conclusion that the passenger crowding issue appears to be generally limited to small light vessels, such as pontoon vessels. Further, the commenters pointed out that the study did not assess the degree to which application of passenger crowding criteria would affect larger, heavier vessels, which make up most of the remainder of the fleet. One commenter indicated that, based on service and configuration, the proposed passenger crowding standard would also inappropriately penalize certain small vessels. Three commenters identified monohull vessels for which the SST was not conservative when compared to the proposed passenger crowding standards. In those cases, the proposed standard would result in reductions of up to 45 percent of the passenger capacity permitted by the SST.

The Coast Guard agrees that, for vessels other than pontoon vessels, further research is required to determine

the risk associated with passenger crowding. Accordingly, we have limited the applicability of § 171.052 to pontoon vessels.

*Section 171.070. Subdivision Requirements—Type II*

See the discussion of changes in § 170.165 of this preamble.

*Section 171.080. Damage Stability Standards for Vessels With Type I or Type II Subdivision*

See the discussion of changes to the AAWPP under § 170.090, and of the IBR in § 170.015, of this preamble.

*Section 174.007. Incorporation by Reference*

One commenter recommended leaving year designations out of citations to ASTM standards in this section and suggested the most current version of a standard should be used. The Coast Guard agrees in part and has revised the rule to remove year designations from provisions other than the centralized IBR sections. In addition, see the discussion of changes in § 170.015 of this preamble.

*Section 174.360. Calculations*

See the discussion of changes in § 170.015 of this preamble.

*Section 175.400. Definitions of Terms Used in This Subchapter*

Although we received no comments on this section, the definition of “variable load” has been modified to improve clarity. We also added a definition of “pontoon vessel” to section 175.400 because that term is used frequently in part 178.

*Section 176.110. Routes Permitted*

Please see the discussion of comments on routes permitted in § 115.110 of this preamble.

*Section 176.505. Stability Verification*

Please see the discussion of comments concerning the proposed annual stability information and ten-year lightship verifications in § 71.25–50 of this preamble.

*Section 176.610. Scope of Drydock and Internal Structural Examinations*

Please see the discussion of comments concerning draft mark verification in § 71.50–1 of this preamble.

*Section 178.210. Stability Information*

Four comments were submitted on the proposed changes in this section and §§ 178.320(b) and 178.340 associated with PSSTs. One commenter opposed allowing simplified stability tests for pontoon vessels. Another

commenter expressed disbelief that the safety of pontoon passenger vessels would be enhanced by the Marine Safety Center issuing stability letters for vessels that undergo a PSST.

One commenter urged that future regulations prohibit OCMI from dispensing with the requirement for a simplified stability test on a pontoon passenger vessel. The commenter also opined that proposed changes to the PSST would introduce inconsistencies between the PSST and the SST used for monohulls, and could reduce safety margins for pontoon vessels. In addition, the commenter objected to the proposed regulatory requirement of a minimum passenger and crew heeling moment because the required heeling moment would be reduced from the guidance provided. Finally, this commenter advocated inclusion of a specific pontoon vessel dynamic stability standard.

One commenter was concerned about the large passenger capacity reduction on a pontoon passenger vessel due to changes in the average weight per person and the perceived rigor of the proposed pontoon vessel stability evaluation.

Over the past four years, the U.S. Coast Guard MSC reviewed records of PSSTs of all certificated pontoon type passenger vessels and found that pontoon vessel stability calculations and results are hypersensitive to even minor errors made in the conduct of the PSST. Because of this hypersensitivity, the Coast Guard has determined that centralized review of PSST results and pontoon vessel stability calculations is necessary to ensure compliance with applicable stability standards. This is the basis for the proposed rule's addition of 46 CFR 178.210(d), which requires that each pontoon passenger vessel be issued a stability letter by the MSC. Because the Coast Guard recognizes a small number of stability letters will not need revision, § 178.210(d) will apply only to stability letters issued after the effective date of this rule.

MSC's review of the PSST data also revealed significant discrepancies in how the simulated load was relocated to the “extreme outboard position of the deck,” as required by existing 46 CFR 178.340. The PSST guidance, in G–MOC policy letter 10–04, *Evaluation of Stability and Subdivision Requirements for Small Passenger Vessels Inspected Under 46 CFR Subchapter T*,<sup>10</sup>

<sup>10</sup>The Coast Guard Office of Vessel Activities was previously designated G–MOC, and is now designated Commandant (CG–543). This policy letter is available in the docket.

suggested that the heeling moment be based on the entire simulated load, which would be centered at the extreme outboard edge of the deck and require some of the simulated load to be placed further outboard than the outboard edge of the deck—a difficult condition to achieve in practice. To correct this, a minimum heeling moment is specified in the final rule that requires the simulated load to be centered not more than one foot inboard from the extreme outboard edge of the deck available to passengers. This requirement would correct previous guidance and otherwise increase the conservatism and consistency of the PSST from previous practice.

MSC field guidance requires tanks to be either 100 percent full or empty, whichever is more conservative, for the conduct of PSSTs. Rather than the current requirement of 75 percent, the trim and immersion difference caused by these tank conditions typically reduce a pontoon vessel's stability by a greater amount than the free surface effect resulting from 75 percent full tanks required in the SST. To maintain the conservatism of the PSST, the proposed requirement is incorporated into this final rule in § 178.340. In other considerations, the new rule maintains consistency in the loading conditions between the SST and the PSST.

This final rule formalizes the MSC's prerogative to dispense with the requirement of a PSST if the vessel's stability can be adequately assessed by alternate means, which include, but are not limited to, the form, arrangement, construction, number of decks, route, and operating restrictions of the vessel. In the case of a pontoon vessel, the Coast Guard will rely on the expertise of the MSC, which will issue the stability letter. Doing so will help ensure that a PSST would only be dispensed with when compliance with minimum stability standards can be assured without testing.

With respect to dynamic stability for pontoon vessels, the Coast Guard does not agree on the viability of or need for such criteria for several reasons. First, to our knowledge, dynamic intact stability criteria based on state-of-the-art methodologies are presently under development for monohulls and have not yet been adopted for any vessel type anywhere in the world, except a guide for the assessment of parametric roll resonance in the design of container vessels. Because of the unique hull characteristics of a pontoon vessel and general lack of comprehensive research in pontoon vessel dynamic stability, development of dynamic stability

criteria for this vessel type using state-of-the-art methodologies is premature.

Second, existing intact stability criteria contained in 46 CFR 170.173 include righting energy or the work done in heeling a vessel to a given angle of heel, which is a traditional consideration of dynamic stability. The use of righting energy criteria is a time-proven, internationally accepted method of evaluating quantities known to be related to dynamic stability, including the stability of vessels spanning a broad spectrum of hull forms and operating routes. Application of these standards provides an indication of the vessel's ability to safely operate under the loading scenarios and environmental conditions the vessel is anticipated to encounter in service. Because most pontoon vessels demonstrate compliance by satisfactory performance of a PSST, we have verified that a satisfactory PSST performed according to 46 CFR 178.340 ensures compliance with 46 CFR 170.173—frequently with large margins.

#### *Section 178.215. Weight of Passengers and Crew*

See the discussion of comments on changes to the AAWPP in § 170.090 of this preamble.

#### *Section 178.230. Stability Letter or Certificate of Inspection Stability Details*

Two comments were received addressing issues associated with stability letters. One commenter requested that this rulemaking clarify how second deck passenger capacity should be reflected in a stability letter based on the performance of a simplified stability test (SST). While the Coast Guard agrees that calculation methods should be examined for clarity, and additional guidance issued as necessary, the information required in the proposed regulation is adequate.

Another commenter recommended that draft and freeboard information from SSTs be clearly identified on stability letters. The Coast Guard agrees that providing such information to a vessel's master would improve awareness of vessel stability limitations. Accordingly, the Coast Guard will consider issuing additional guidance regarding the information required in stability letters issued for vessels that have undergone SSTs. Because this information is already required to be recorded during the SST, however, the proposed regulation does not need revision on this subject.

#### *Section 178.310. Intact Stability Requirements—General*

Six comments were submitted on the proposal to reorganize and clarify the intact stability requirements applicable to Subchapter T passenger vessels.

One commenter indicated the proposed rules have “little potential for clarifying” applicable standards and are “difficult to follow, in large part because of the multitude of cross-references.” The Coast Guard agrees and has re-written §§ 178.310, 178.320 and 178.325 to minimize cross-references.

One commenter indicated that, while the newly introduced flowchart and table were welcome additions, they were “job assistants”, helpful in determining regulatory applicability, rather than regulatory requirements and would be more appropriately published as guidance. The Coast Guard agrees and has removed the flowchart and table from the regulations.

One commenter urged the Coast Guard to require a 50 percent full load submergence criterion, in addition to the nine criteria already proposed, for governing application of the PSST. The Coast Guard does not agree. The new cross sectional area requirement effectively imposes the 50 percent submergence limit to any case with greater submergence. Consequently, compliance with the performance safety standard detailed in the PSST can be achieved by certain pontoon vessels which are loaded beyond the 50 percent pontoon submergence level, and an arbitrary submergence limitation of these vessels would be inappropriate and superfluous.

One commenter advocated eliminating SSTs, especially for sailing vessels, while another commenter lauded the inclusion of flush deck catamaran vessels in those eligible for an SST. Another commenter questioned the immersion standard for the SST, and questioned whether a “more reasonable number for the Passenger Heeling Moment” may be determined considering the construction, service, and route of the vessel.

The Coast Guard intends to study the SST requirements to ensure that they remain conservative with respect to currently applicable stability requirements. Pending the results of such a study, however, no action beyond that proposed in the NPRM will be taken to modify the SST requirements or applicability.

#### *Section 178.320. Intact Stability Requirements—Non-Sailing Vessels*

See the discussion of comments on changes concerning pontoon passenger

vessel simplified stability proof tests in § 178.210, and on revisions to the intact stability requirements for Subchapter T vessels in § 178.310 of this preamble.

*Section 178.325. Intact Stability Requirements—Monohull Sailing Vessels*

See the discussion of comments on changes to the intact stability requirements for Subchapter T vessels in § 178.310 of this preamble.

*Section 178.330. Simplified Stability Proof Test (SST)*

See the discussion of comments on changes to the AAWPP in § 170.090 of this preamble.

*Section 178.340. Stability Standards for Pontoon Vessels on Protected Waters*

Although no commenter suggested it, we corrected paragraph (c) by removing the words “without consideration of the cross-structure area on that side,” and the definition of “Area” in paragraph (b) by removing the words “masts” and “but not protruding fixed objects such as antennas or running rigging” to align those provisions with the commonly accepted definition of “area” in that context. Additionally, see the discussion of comments on revisions concerning pontoon passenger vessel simplified stability proof tests in § 178.210 of this preamble.

*Section 179.15. Incorporation by Reference*

See the discussion of changes in § 170.015 of this preamble.

*Section 179.212. Watertight Bulkheads for Subdivision and Damage Stability*

We received one comment on proposed changes to this section. The commenter objected to limiting the use of the simplified subdivision requirements of part 179 to vessels that use the simplified intact stability requirements of part 178, and vice versa. The commenter maintained that the two simplified rules are not related and the simplified subdivision provides a level of transverse subdivision that is equal or greater than that permitted by the Type II subdivision calculations required in 46 CFR 171.070.

The proposed clarification of the linkage between simplified subdivision and the simplified stability proof test did not constitute the introduction of a new requirement, and that linkage cannot be removed without further study. This final rule contains revisions to this section in a further effort to improve its organization and readability. For more information, see

the discussion of changes in § 170.165 of this preamble.

We revised this section to preserve the equivalence of Subchapter T to SOLAS Chapters II–1, II–2, and III for certain small passenger vessels operating on international voyages 20 miles or less from the nearest land. No other substantive changes have been made to the provisions of this section as proposed in the NPRM. For a discussion of minor changes to the incorporation by reference, see § 170.015 of this preamble.

*Section 179.230. Damage Stability Requirements*

This section has been removed because its requirements have been incorporated into revised § 179.212.

*Section 185.304. Navigation Underway*

See the discussion of comments on regulations concerning navigation underway in § 122.304 of this preamble.

*Section 185.315. Verification of Vessel Compliance With Applicable Stability Requirements*

See the discussion of comments on verification of compliance with stability information in § 122.315 of this preamble.

*Section 185.602. Hull Markings*

See the discussion of comments on requirements for vessels demonstrating compliance with Subchapter S to have draft marks in § 122.602 of this preamble.

*General Comments*

Some commenters agreed with the Society of Naval Architects and Marine Engineers (SNAME) Ad Hoc Panel No. 15's recommendations for a risk-based approach, and objected that these recommendations had not been incorporated into the proposed rule. One commenter stated that SNAME is the organization most qualified to assist with the technical aspects of this rulemaking. Another asserted that using SNAME's recommendations would constitute an unspecified conflict of interest.

The Coast Guard is grateful for the significant time and effort that members of SNAME's Ad Hoc Panel No. 15 expended. Its recommendations, together with other comments received from the public, have been considered in the development of both the proposed rule and this final rule. The Coast Guard is unaware of any conflict of interest involved in doing so, particularly in view of the fact that SNAME's activities and recommendations in this rulemaking

have been completely disclosed and subject to public comment.

One commenter pointed out that angle of heel is measured from the upright to the vessel's centerline, not from the centerline to the upright. We agree, and have corrected the definition in the List of Terms.

Forty-three commenters offered suggestions on how the rule should be configured or how the rulemaking should proceed. There were 24 commenters who concurred that the AAWPP should be updated by a final rule as soon as possible, while all other elements of the NPRM should be deferred to a supplemental NPRM. Seven commenters requested a risk-based decision making process be used as a general approach. Four commenters felt that no rulemaking was required at all because they believed casualty history was not related to passenger weight. Three commenters objected to parts of the proposed rule that might require new stability tests because, in the commenters' views, the provisions were overly conservative and did not properly account for the safety margins included in existing stability regulations. For answers to these comments, see discussion of the proposed increase in the AAWPP, the annual stability information verification, and the ten year stability verification in §§ 71.25–50 and 170.090 of this preamble.

Two commenters acknowledged the need to examine pontoon vessels more closely. They emphasized, however, that pre-sailing stability checks should consist of no more than ensuring the passenger count doesn't exceed limits, checking the draft and, where appropriate, the number of passengers on an upper deck. We agree that checking the passenger count and draft marks are acceptable methods of verifying stability compliance in many situations. As discussed in §§ 122.315 and 185.315 of this preamble, though, other means may be more appropriate. Regardless of the means used, the master of a vessel must take into account the total weight of passengers, crew and variable loads.

One commenter recommended that the proposed rule take into account the characteristics and safety record of various types of vessels, such as pontoon vessels, amphibious vehicles (e.g., DUKWs), and small ferry boats. Because the safety of amphibious vehicles and small ferries generally has been addressed through added guidance to existing regulations, the final rule does not specifically address each of those types of vessels.

Another commenter stated the “one size fits all” approach of the proposed rule is flawed and arbitrary because it attempts to apply standards across the board from small pontoon boats to large passenger ferries, and to do so retroactively when there is no data to support the imposition of such standards on large vessels. The Coast Guard disagrees. The AAWPP for all passenger vessels must be consistent with the actual average American weight to protect the public, as the vast majority of commenters agreed.

Another commenter stated the proposed rule was complicated by the addition of too many “housekeeping” items, re-definitions, updates and corrections. We disagree that these changes complicate or otherwise negatively affect other provisions of the final rule. Other changes are necessary to fulfill obligations under the SOLAS and International Load Line conventions.

One commenter complained the proposed rule would unfairly burden the operator with the responsibility to retrieve stability records for the vessel, and that the Coast Guard should maintain stability records for all passenger vessels. We disagree that requiring vessel owners and operators to maintain stability information for their vessels is, in any way, unfair. Owners and operators of other types of vehicles engaged in the business of public transportation—such as commercial aircraft and buses—have long been required to maintain their vehicles in a safe condition together with related documentation.

One commenter supported the Coast Guard's efforts to thoroughly review stability regulations. The commenter also approved of harmonizing United States regulations with international standards, and minimizing discrepancies and loopholes that can develop when a piece-meal approach is taken to regulatory development. This commenter believed regulatory changes should address risks inherent in smaller passenger vessel designs, namely lower freeboards, higher wind area/draft ratios, and smaller righting moment values. We generally agree for reasons discussed in previous sections of this preamble under §§ 170.170, 171.050, 171.052, 178.210, and 178.310.

Two commenters inquired about whether the Coast Guard intends to issue regulations in the future concerning seat size and spacing, window and aisle width, life jackets and life rafts. We have not determined what, if any, additional regulations are necessary in those areas.

One commenter suggested the Coast Guard require certification of all passenger vessels in the United States. The Coast Guard regulates only those vessels for which it has statutory authority.

Additionally, after further consideration, we removed unnecessary commentary from several terms listed in section II of this preamble. We also removed “length between perpendiculars” and “waterplane” because these terms are not used, and corrected and clarified the following terms: “heeling moment”; “intact stability”; “master”; “passenger heel”; “pontoon vessel”; “protected waters”; and “wind heel”.

#### VI. Incorporation by Reference

The Director of the Federal Register has approved the material in §§ 170.015, 171.012, 172.020, 174.007 and 179.15 for incorporation by reference under 5 U.S.C. 552 and 1 CFR part 51. Copies of the material are available from the sources listed in those sections.

#### VII. Regulatory Analyses

We developed this rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on 13 of these statutes or executive orders.

##### A. Regulatory Planning and Review

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review. The Office of Management and Budget has not reviewed it under that Order.

A combined Regulatory Analysis and Final Regulatory Flexibility Analysis report (“regulatory analysis”) is available in the docket as indicated under **ADDRESSES**. In this regulatory analysis, we evaluated public comments on the regulatory analysis supporting the NPRM and revised the estimates of impacts for this final rule. A summary of the regulatory analysis follows:

Since the publication of the NPRM in 2008, public comments led us to reconsider the cost impacts of the rule. We received several comments that the unit costs for stability tests were too low. We have amended the cost estimates of the rulemaking to include the higher unit costs for stability tests based on data and information provided by public comments. We have also amended the cost estimates for lost revenues from passengers to include revenue loss from concessions on board vessels based on information provided by public comments. In addition, we have updated the number of passenger

trips per year for small passenger vessels. These changes are summarized below.

##### Stability Test Costs

We received 31 comments on the cost of stability tests. Commenters stated the Coast Guard's estimates of these tests were low. The comments also suggested that the costs of stability tests vary and depend upon many factors unique to vessel type and size. In response to these comments, we updated these costs by including a range of cost estimates for stability tests. We revised the final regulatory analysis to include low and high cost estimates. The low cost estimates per affected vessel are \$200 for a simplified stability test, \$2,500 for a lightweight survey, and \$5,000 for an inclining test. The high cost estimates per affected vessel are about \$2,000 for a simplified stability test, \$7,500 for a lightweight survey, and \$15,000 for an inclining test.

##### Revenue Loss Due to Concessions

We received three comments that our revenue estimates did not include concessions of the vessel. We received some estimates that concessions may represent twenty percent of passenger revenue for certain vessel operations. We have adjusted our costs to include concessions-related revenue loss for vessels in the excursion, ferry, general, harbor, and river cruise categories. Our original estimates for many vessel categories, such as gaming and party boats, included the estimate of all revenues—not just ticket revenue. We did not adjust revenue loss related to these estimates.

##### Revenue Loss Due to Reduced Passenger Capacity

We received 26 comments relating to the amount of lost revenue due to the reduction in passenger capacity. Several commenters told us that a percent reduction in passenger capacity would result in an equivalent percent reduction in revenues (i.e., a reduction in vessel passenger capacity of 15 percent would result in a total revenue loss of 15 percent). In order for this condition to be true, all vessel trips would have to currently be operating in a fully loaded (full passenger capacity) condition on every trip. We did not find any industry data to support that all passenger vessel trips operate on a fully loaded basis. Also, some commenters provided revenue loss if one passenger per trip is lost based on the assumption that all trips are fully loaded. We do not believe that this is a reasonable assumption and the assumption is not supported by average passenger loading

data. According to data from the BMT Group report presented in the regulatory analysis (available in the docket), small passenger vessels have an average passenger load of between 50 to 60 percent. Coast Guard recognizes that some portion of vessel trips would indeed face full or near full loads under some conditions and would therefore incur a reduction in the number of passengers carried with a corresponding reduction in revenue for some trips. Several commenters noted that full or near full loads occur during peak season, usually the summer months.

In the regulatory analysis supporting the NPRM, we estimated the fraction of vessel trips per year that would have full or near full loads and experience a reduction in passengers to be approximately 3 to 6 percent. We based these estimates on the average passengers per trip and vessel capacity data from the BMT Group report and the assumption that the number of passengers per trip is normally distributed. Several commenters stated that the normal distribution assumption underestimates the number of trips subject to passenger loss since demand can be concentrated in peak (seasonal) months. However, none of the commenters provided specific data or estimates of the fraction of annual trips that operate at or near capacity. We understand that vessel operations vary considerably by vessel service, demand, season, and location leading to considerable uncertainty in the occurrence of fully loaded vessels and passengers lost. Due to this variation in operations and the lack of specific data, we acknowledge that some vessels may experience greater than estimated loss of passengers and revenues under some conditions, but we are unable to provide a revised estimate based on the lack of available data. We do provide additional discussion of the uncertainty related to revenue loss in the regulatory analysis available in the docket. In addition, we also note that the subject passenger and revenue loss is related to unsafe operations. This rule mitigates these unsafe operations through the

restoration of the original regulatory margin of safety for vessel stability (see “Risk basis of rulemaking” section below for additional discussion).

Number of Passengers

Several commenters noted that the estimate for the number of passengers per year is underestimated. Coast Guard concurs that the total number of 655,000 passengers per year cited in the Benefits section of the regulatory analysis supporting the NPRM is in error. The figure of 655,000 is actually an estimate of the number of available passenger vessel seats and was incorrectly characterized as the number of passenger trips per year for small passenger vessels. Supported by public comments, we revised the regulatory analysis to reflect an estimate of the total number of passenger trips per year which is considerably higher at 125 million passengers per year.

Risk Basis of Rulemaking

We received nine comments on the NPRM regarding the justification for the rule in terms of safety. Several commenters noted the findings in a 2005 Coast Guard study (available on the docket) that no casualties have been directly attributable to increased passenger weight and conclude from this that there is no identifiable safety risk or that no lives have been put at risk as a result of the increased passenger weight. We disagree with the premise that there is no risk related to increased passenger weight. The lack of casualties directly attributable to increased passenger weight does not equate to no risk. Vessel casualties are often complicated events with multiple factors contributing to the accident. It is not surprising that passenger weight cannot be identified as the sole causal factor for an incident and has, in fact, been identified as a potential contributory factor for two recent casualties with multiple loss of life: The *Lady D* (2004) and the *Ethan Allen* (2005).<sup>11</sup>

Further, as described in the NPRM, the primary goal of the rule is to restore

the margin of safety that had been built into vessel stability engineering calculations and has been eroded by increased passenger weight, increasing the risk of stability problems. When originally developed, stability standards included a margin of safety to allow for the safe operation of vessels even under adverse operating conditions. The average weight of passengers was a component of the stability calculations and resulting margin of safety. As passenger weight increases, the margin of safety decreases across all measures of stability, including vertical center of gravity, freeboard and passenger healing moment.

Summary of Rule Impacts: Affected Population, Costs and Benefits

Based on Coast Guard data, we estimate this rule will affect 6,073 inspected passenger vessels. For the purpose of the regulatory analysis, we assumed that all vessels will be required to have updated stability letters. Of these vessels, 1,140, or 19% of all vessels, would require both a new stability test and a reduction in maximum passenger load to obtain an updated stability letter. Additionally, 3,542 vessels, or 58% of all vessels, would require compliance through either a new stability test and/or stability calculations, but would not need to reduce maximum passenger load. Finally, 1,391 vessels, or 23% of all vessels, would require no additional stability test and/or stability calculations and no reduction in passenger load in order to receive an updated stability letter.

As previously discussed, we revised the total costs of this rulemaking after consideration of the comments on the NPRM. These changes resulted in an increase in costs. We estimate the undiscounted first-year cost of the rule to range from \$10 million to \$27.6 million (average of \$18.8 million). We estimate the total present value 10-year cost of this rule to range from \$24.6 to \$44.2 million at a 7% discount rate. The following table summarizes regulatory costs for the NPRM and the final rule.

TABLE 1—SUMMARY OF COST ESTIMATES: NPRM AND FINAL RULE

[\$ Million]\*

Cost	NPRM	Final rule
First Year Costs (Undiscounted) .....	\$10	Range of \$10–\$27.6 (Average of \$18.8).
Annual Recurring Costs (Undiscounted) .....	2.5	Range of \$2.5–\$3 (Average of \$2.75).
10-Year Present Value Costs (7% discount rate) .....	24.6	Range of \$24.6–\$44.2 (Average of \$34.4).

<sup>11</sup> See the USCG Lady D Marine Board report, conclusions 3 and 8, and recommendation 3 (<http://marinecasualty.com/documents/ladyd.pdf>).

See the NTSB Report on the Ethan Allen capsizing, pages 40, 44, 48 [Finding 11], and 49 [Probable Cause] (<http://www.nts.gov/publictn/2006/>

*MAR0603.pdf*). Note that the Ethan Allen was not a Coast Guard inspected vessel.



TABLE 1—SUMMARY OF COST ESTIMATES: NPRM AND FINAL RULE—Continued  
[\$ Million] \*

Cost	NPRM	Final rule
Annualized Costs (10 year; 7% discount rate) .....	3.5	Range of \$3.5–\$6.3 (Average of \$4.9).

\* See the “Regulatory Analysis and Final Regulatory Flexibility Analysis” for additional information on costs, including cost ranges, uncertainties, and estimates at different discount rates.

The primary benefit of the rule is the increased safety and reduced risk of casualties through the restoration of the margin of safety for vessel stability. An increase in passenger and crew weight has an adverse effect on the stability of passenger vessels due to several factors, including increased vertical center of gravity, reduced freeboard and increased passenger healing moment. As previously discussed, in 2004 the CDC found that the average mean body weight for men and women had increased by 24 pounds since the 1960s. A subsequent 2008 CDC report confirms that the average weight continues to rise. Passenger vessel owners and operators may not be aware of the increased total passenger weight being carried on their vessels and the resulting erosion of the margin of safety that can occur with increased passenger weight.

Without the restoration of the margin of safety from the revised weight standard, an increased casualty risk remains under certain conditions. The public places a value on reducing even small risks of transportation accidents, particularly those involving fatalities and injuries. For example, DHS agencies (including Coast Guard) have used a value per statistical life (VSL) of \$6.3 as an average measure of the public’s willingness to pay to reduce the risk of a fatality by 1 in a million, \$0.63 to reduce risk by 1 in 10 million, and \$.063 to reduce risk by 1 in 100 million.<sup>12</sup> As passenger vessels carry millions of passengers each year, very small reductions in risk can result in a fairly large aggregate willingness to pay for that risk reduction. In response to comments received, we revised our estimate of the number of passengers carried on small passenger vessels each year to approximately 125 million passenger trips per year. Therefore, as an example based on 125 million trips per year, passengers would be willing to pay \$7.875 million to reduce the risk of a fatality by 1 in 100 million (125 million × \$0.063). Thus, the risk of fatalities from passenger vessels and the amount of risk reduced by the rule need

to be very small (about 1 in 100 million risk reduction) for the rule to reach a breakeven point where costs equal benefits.

#### B. Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this rule will have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

A Final Regulatory Flexibility Analysis (FRFA) discussing the impact of this rule on small entities is available in the docket where indicated under **ADDRESSES**.

As previously discussed, we revised our regulatory analysis of the rule as a result of public comments on stability test costs, the uncertainties of revenue loss, and the impacts on certain operators as a result of revenue loss. We estimate that approximately 5,760 entities are regulated by this rule and 17.3 percent (approximately 1,000 entities) are small entities under the Regulatory Flexibility Act. Given these revisions, we determined that 20 percent or more of the small entities affected by this rule will incur an annual cost impact on revenue of more than 1 percent.

Therefore, we have determined that this rule will have a significant economic impact on a substantial number of small entities under section 605(b) of the Regulatory Flexibility Act.

#### C. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we offered to assist small entities in understanding the rule so that they could better evaluate its effects on them and participate in the rulemaking. In accordance with section 212 of the Act, the Coast Guard prepared a Small Entity Compliance Guide, which will be available on a Coast Guard web site, to assist small entities comply with this final rule.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency’s responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

#### D. Collection of Information

This rule calls for a collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The title and description of the information collections, a description of those who must collect the information, and an estimate of the total annual burden follow. The estimate covers the time for reviewing instructions, searching existing sources of data, gathering and maintaining the data needed, and completing and reviewing the collection.

This rule will call for revisions of two collections of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). 46 CFR 170.120 and 178.210 require the collection of information. The updated average weight per person will require revisions of the existing OMB-approved collections of information.

*OMB Control Number: 1625–0064.*

*Title: Plan Approval and Records for Subdivision and Stability Regulations—Title 46 CFR Subchapter S.*

*Summary of the Collection of Information:* This collection of information requires owners, operators, or masters of certain inspected vessels to obtain and/or post various documents as part of the Coast Guard commercial vessel safety program. The collection also requires the reporting of certain information.

*Need for Information:* The Coast Guard needs this information to determine whether an entity meets the statutory requirements.

<sup>12</sup>“Valuing Mortality Risk Reductions in Homeland Security Regulatory Analyses”, DHS/CBP, June 2008, (see <http://www.regulations.gov>, docket entry # USCG–2005–21869–003).

*Proposed Use of Information:* The Coast Guard will use this information to determine whether an entity meets the statutory requirements.

*Description of the Respondents:* Owners, operators, and/or masters of passenger vessels.

*Burden of Response:* The burden of this collection of information is the provision of documentation of stability analysis and posting of a stability letter. During this period, we estimate the total number of respondents is 1,388.

*Estimate of Total Annual Burden:* The existing OMB-approved total annual burden is 4,539 hours. The revision includes a one-time annual burden of approximately 5,791 hours.

*OMB Control Number:* 1625-0057.

*Title:* Small Passenger Vessels—Title 46 Subchapters K and T.

*Summary of the Collection of Information:* This collection of information requires information necessary for the proper administration and enforcement of the program on safety of commercial vessels as it affects small passenger vessels.

*Need for Information:* The Coast Guard needs this information to determine whether an entity meets the statutory requirements.

*Proposed Use of Information:* The Coast Guard will use this information to determine whether an entity meets the statutory requirements.

*Description of Respondents:* Owners, operators, and/or masters of small passenger vessels.

*Burden of Response:* The burden of this rule for this collection of information is the posting of a stability letter, as required by 46 CFR 115.306 (subchapter K) or 46 CFR 176.306 (subchapter T). Of the 5,487 respondents, there are 3,669 vessels inspected under 46 CFR subchapters K or T that will need to post a new stability letter.

*Estimate of Total Annual Burden:* The existing OMB-approved annual burden, related to the posting of a stability letter, is 11 hours. The revision includes a one-time increase in the annual burden of approximately 305 hours to post the new stability letter.

As required by 44 U.S.C. 3507(d), we submitted a copy of this rule to the Office of Management and Budget (OMB) for its review of the collection of information. OMB has not yet completed its review of this collection, and the reporting and recordkeeping requirements of this rule will not be enforced until this collection is approved by OMB. We will publish a notice in the **Federal Register** announcing the effective date of those

requirements after OMB approves the collection.

You are not required to respond to a collection of information unless it displays a currently valid OMB control number.

#### E. Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them.

Title 46 U.S.C. 3301 subjects passenger vessels to Coast Guard inspection, and 46 U.S.C. 3306 provides the Coast Guard with clear authority to establish safety regulations for such vessels. This rule revises and updates stability standards for passenger vessels in 46 CFR subchapters H, K and T, which are issued pursuant to authority in 46 U.S.C chapter 33.

The U.S. Supreme Court has long recognized the field preemptive impact of the Federal regulatory regime for inspected vessels. *See, e.g., Kelly v. Washington ex rel Foss*, 302 U.S. 1 (1937) and the consolidated cases of *United States v. Locke and Intertanko v. Locke*, 529 U.S. 89, 113–116 (2000). Therefore the Coast Guard's view is that regulations issued under the authority of 46 U.S.C. 3306 in the areas of design, construction, alteration, repair, operation, superstructures, hulls, fittings, equipment, appliances, propulsion machinery, auxiliary machinery, boilers, unfired pressure vessels, piping, electric installations, accommodations for passengers and crew, sailing school instructors, sailing school students, lifesaving equipment and its use, firefighting equipment, its use and precautionary measures to guard against fire, inspections and tests related to these areas and the use of vessel stores and other supplies of a dangerous nature have preemptive effect over state regulation in these fields, regardless of whether the Coast Guard has issued regulations on the subject or not, and regardless of the existence of conflict between the state and Coast Guard regulation.

While it is well settled that States may not regulate in categories in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, as these categories are within a field foreclosed from regulation by the States (*see U.S. v. Locke*, above), the Coast Guard recognizes the key role state and local governments may have in making regulatory determinations. Additionally, Sections 4 and 6 of Executive Order 13132 require that for any rules with

preemptive effect, the Coast Guard shall provide elected officials of affected state and local governments and their representative national organizations the notice and opportunity for appropriate participation in any rulemaking proceedings, and to consult with such officials early in the rulemaking process. The Coast Guard received no comments from state or local governments, or their representative national organizations, in response to the NPRM.

#### F. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such expenditure, we do discuss the effects of this rule elsewhere in this preamble.

#### G. Taking of Private Property

This rule will not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

#### H. Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

#### I. Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

#### J. Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. As described in the NPRM, we made a preliminary determination that this rule does not have tribal implications under

Executive Order 13175. We received neither any comments on this subject, nor any other information contradicting that determination.

#### K. Energy Effects

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a “significant energy action” under that order because it is not a “significant regulatory action” under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

#### L. Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule uses the following voluntary consensus standards: American Society for Testing and Materials (ASTM) and Military Specification, Naval Publications and Forms Center, Code 1052. The sections that reference these standards and the locations where these standards are available are listed in §§ 170.015, 170.270, 174.007 and 174.100.

#### M. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.1D, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321–4370f), and have concluded that this action is one of a category of actions which do not individually or cumulatively have a significant effect on the human environment. This rule is categorically excluded under section 2.B.2, figure 2–

1, paragraph (34)(d) of the Instruction, and under section 6(a) of the “Appendix to National Environmental Policy Act: Coast Guard Procedures for Categorical Exclusions, Notice of Final Agency Policy” (67 FR 48244, July 23, 2002).” This rule amends regulations concerning inspection and documentation of vessels, and particularly those governing the stability of passenger vessels and the maximum number of people that may safely be permitted on board. An environmental analysis checklist and a categorical exclusion determination are available in the docket where indicated under

#### ADDRESSES.

#### List of Subjects

46 CFR Parts 71, 114, 175, 185

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Parts 115 and 176

Fire prevention, Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 122

Marine safety, Passenger vessels, Penalties, Reporting and recordkeeping requirements.

46 CFR Parts 170 and 174

Marine safety, Reporting and recordkeeping requirements, Vessels, Incorporation by reference.

46 CFR Parts 171 and 179

Marine safety, Passenger vessels, Incorporation by reference.

46 CFR Part 172

Cargo vessels, Hazardous materials transportation Marine safety, Incorporation by reference.

46 CFR Part 178

Marine safety, Passenger vessels.

■ For the reasons discussed in the preamble, the Coast Guard amends 46 CFR parts 71, 114, 115, 122, 170, 171, 172, 174, 175, 176, 178, 179, and 185 as follows:

#### PART 71—INSPECTION AND CERTIFICATION

■ 1. The authority citation for part 71 continues to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 2113, 3205, 3306, 3307; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

#### § 71.50–1 [Amended]

■ 2. In § 71.50–1, in the definition for “Drydock examination”, after the words “and appurtenances”, add the words “, including verification of the accuracy of draft marks if not already verified at a previous drydock examination.”

■ 3. Revise the heading to subpart 71.75 to read as follows:

#### Subpart 71.75—Certificates Under the International Convention for Safety of Life at Sea, 1974

#### § 71.75–1 [Amended]

■ 4. In § 71.75–1(a), after the word “on”, add the words “or certificated for”.

#### § 71.75–5 [Amended]

■ 5. In § 71.75–5—

■ a. In paragraph (a), after the word “on”, add the words “or certificated for”, and immediately before the word “Passenger”, add the word “SOLAS”;

■ b. In paragraph (b), after the words “vessels on”, add the words “or certificated for”; and after the words “international voyage”, add the words “in addition to the applicable requirements of SOLAS.”

#### PART 114—GENERAL PROVISIONS

■ 6. Revise the authority citation for part 114 to read as follows:

**Authority:** 46 U.S.C. 2103, 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1; § 114.900 also issued under 44 U.S.C. 3507.

■ 7. In § 114.400(b)—

■ a. Remove “; or” from the end of paragraph (2) of the definition of “Length” and add a period in its place;

■ b. Remove paragraph (3) from the definition of “Length”; and

■ c. Add, in alphabetical order, a definition for “Variable load” to read as follows:

#### § 114.400 Definition of terms used in this subchapter.

\* \* \* \* \*

*Variable load* means the weight of all items brought on board a vessel for which explicit account is not made in approved stability calculations, including but not limited to, personal effects, carry-on items, luggage, and equipment of any kind.

\* \* \* \* \*

#### PART 115—INSPECTION AND CERTIFICATION

■ 8. Revise the authority citation for part 115 to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307; 49 U.S.C. App. 1804; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

- 9. In § 115.110, revise paragraphs (d)(2) and (d)(3), and add new paragraph (d)(4) to read as follows:

**§ 115.110 Routes permitted.**

\* \* \* \* \*

(d) \* \* \*

(2) The performance capabilities of the vessel based on design, scantlings, stability, subdivision, propulsion, speed, operating modes, maneuverability, and other characteristics;

(3) The suitability of the vessel for night-time operations; and

(4) The suitability of the vessel for use in all environmental conditions.

- 10. Revise § 115.112 to read as follows:

**§ 115.112 Total persons permitted.**

The cognizant Officer in Charge, Marine Inspection (OCMI) determines the total number of persons permitted to be carried on a vessel. In determining the total number of persons, the OCMI may consider the total weight of passengers, crew, and variable loads; stability restrictions and subdivision requirements of the vessel; the vessel's route, general arrangement, means of escape, and lifesaving equipment; minimum manning requirements; and the maximum number of passengers permitted in accordance with § 115.113 of this subpart.

- 11. In § 115.610(a), add a sentence at the end of the paragraph to read as follows:

**§ 115.610 Scope of drydock and internal structural examinations.**

(a) \* \* \* The accuracy of draft or loading marks, if required by § 122.602 of this subpart, must be verified if not already verified at construction or a previous drydock examination.

\* \* \* \* \*

**§ 115.900 [Amended]**

- 12. In § 115.900(a), after the word “which”, add the words “is certificated for or”; remove the word “an”; and remove the word “voyage” and add, in its place, the word “voyages”.

**§ 115.910 [Amended]**

- 13. In § 115.910(a), in the second sentence, remove the word “issues” and add, in its place, the words “authorizes the cognizant Officer in Charge, Marine Inspection (OCMI) to issue”; and in the

last sentence, after the word “will”, add the words “authorize the cognizant OCMI to”.

**§ 115.920 [Amended]**

- 14. In § 115.920(d), in the first sentence, after the word “will”, add the words “authorize the cognizant OCMI to”, and in the second sentence, after the word “Commandant”, remove the word “shall” and add the words “will authorize the cognizant OCMI to”.

**§ 115.930 [Amended]**

- 15. In § 115.930, in the last sentence, remove the words “Commandant will indicate the” and after the word “equivalent”, add the words “must be indicated”.

**PART 122—OPERATIONS**

- 16. The authority citation for part 122 continues to read as follows:

**Authority:** 46 U.S.C. 2103, 3306, 6101; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

- 17. In § 122.304, revise paragraph (a)(3) to read as follows:

**§ 122.304 Navigation underway.**

(a) \* \* \*

(3) Prevailing and forecasted visibility and environmental conditions, including wind and waves;

\* \* \* \* \*

- 18. In § 122.315, designate the existing paragraph as paragraph (a), and add paragraph (b) to read as follows:

**§ 122.315 Verification of vessel compliance with applicable stability requirements.**

\* \* \* \* \*

(b) In order to fulfill the requirements of paragraph (a) of this section and avoid overloading the vessel, the master must take into account the total weight of passengers, crew, and variable loads.

**§ 122.602 [Amended]**

- 19. In § 122.602—  
 ■ a. In paragraph (c), remove the words “that complies with the stability requirements of §§ 170.170, 170.173, 171.050, 171.055, and 171.057 of this chapter or with § 178.310 of this chapter”;  
 ■ b. Remove paragraph (b); and  
 ■ c. Redesignate paragraphs (c) through (g) as paragraphs (b) through (f).

**PART 170—STABILITY REQUIREMENTS FOR ALL INSPECTED VESSELS**

- 20. The authority citation for part 170 continues to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 2103, 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

- 21. Revise § 170.001(a) to read as follows:

**§ 170.001 Applicability.**

(a) This subchapter applies to each vessel that is—

(1) Contracted for on or after March 11, 1996, except where specifically stated otherwise; and

(2) Either—

(i) Inspected under another subchapter of this chapter, or is a foreign vessel that must comply with the requirements in subchapter O of this chapter; or

(ii) Required by either subchapter C or subchapter E of this chapter to meet applicable requirements contained in this subchapter.

\* \* \* \* \*

- 22. Revise § 170.015 to read as follows:

**§ 170.015 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). It is also available for inspection at the Coast Guard, Office of Design and Engineering Standards (CG–521), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126, and is available from the sources listed below.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

(1) ASTM F 1196–00, Standard Specification for Sliding Watertight Door Assemblies, 2008, incorporation by reference (IBR) approved for § 170.270.

(2) ASTM F 1197–00, Standard Specification for Sliding Watertight Door Control Systems, 2007, IBR approved for § 170.270.

(c) Naval Publications and Forms Center, Code 1052, 5801 Tabor Avenue, Philadelphia, PA 19120.

(1) MIL–P–21929B, Military Specification, Plastic Material, Cellular

Polyurethane, Foam-in-Place, Rigid (2 Pounds per Cubic Foot), 15 January 1991, IBR approved for § 170.245.

(2) [Reserved]

(d) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Resolution MSC.216(82), Adoption of Amendments to the International Convention for the Safety of Life At Sea, 1974, As Amended (IMO Res. MSC.216(82), Adopted on 8 December 2006, IBR approved for §§ 170.140 and 170.248.

(2) Resolution MSC 267(85), Adoption of the International Code on Intact Stability, 2008 (2008 IS Code), Adopted on 4 December 2008, IBR approved for § 170.165.

■ 23. In § 170.055—

■ a. Redesignate paragraphs (e) through (w) as paragraphs (g) through (y), respectively, and redesignate paragraphs (a) through (d) as paragraphs (b) through (e), respectively, and;

■ b. Add new paragraphs (a) and (f); and

■ c. Revise redesignated paragraph (k) to read as follows:

**§ 170.055 Definitions concerning a vessel.**

(a) *Assumed average weight per person* means the weight calculated in accordance with § 170.090 of this part.

\* \* \* \* \*

(f) *Constructed* means the date—

(1) The vessel's keel was laid; or

(2) Construction identifiable with the vessel began and assembly of that vessel commenced comprising of 50 metric tons or at least 1 percent of the estimated mass of all structural material, whichever is less.

\* \* \* \* \*

(k) *Lightweight* means the displacement of a vessel with fixed ballast and with machinery liquids at operating levels but without any cargo, stores, consumable liquids, water ballast, or persons and their effects.

\* \* \* \* \*

**§ 170.070 [Amended]**

■ 24. In § 170.070(b) introductory text, after the word "OCMI", add the words "or regulations by which the vessel is inspected require their application."

**§ 170.075 [Amended]**

■ 25. In § 170.075(a), remove the words "or four copies for plan review being conducted by the American Bureau of Shipping (ABS)".

**§ 170.080 [Amended]**

■ 26. In § 170.080, remove the words "or four copies for plan review being conducted by the ABS."

**§ 170.085 [Amended]**

■ 27. In § 170.085, remove the words "or the ABS".

■ 28. In § 170.090, revise paragraph (a), and add paragraphs (c), (d), (e), (f), and (g) to read as follows:

**§ 170.090 Calculations.**

(a) All calculations required by this subchapter must be submitted with the plans required by § 170.075 of this subpart. Calculations must account for the weight of all loads carried aboard the vessel.

\* \* \* \* \*

(c) The assumed weight per person for calculations showing compliance with the regulations of this subchapter must be representative of the passengers and crew aboard the vessel while engaged in the service intended. Unless the Officer in Charge, Marine Inspection (OCMI) permits or requires the use of other values in writing, the assumed weight per person of passengers and crew must not be less than that the Assumed Average Weight per Person (AAWPP) calculated in accordance with paragraphs (d) and (e) of this section.

(d)(1) The AAWPP is 185 lb from December 1, 2011 until the AAWPP is first updated pursuant to the provisions of this section. As of the effective date of the first AAWPP update after December 1, 2011, this paragraph (d)(1) will be superseded and cease to be effective.

(2) The formula in paragraph (e) of this section will be used to determine an update to the AAWPP. It requires the use of data in the most recent report released by the Centers for Disease Control and Prevention (CDC) through the National Center for Health Statistics (NCHS), or any successors to those centers. This report can be found on the CDC's Web site.

(3) Each time the CDC releases a report containing mean weights of United States adult males and females, the Coast Guard will apply the formula in paragraph (e) of this section to that data. The resulting value will become the new AAWPP only if the sum equals or exceeds 10 pounds more than the AAWPP then in effect. The Coast Guard will notify the public of the new AAWPP in the **Federal Register** and other appropriate media.

(4) Updates to the AAWPP used in calculations showing compliance with this subchapter will be promulgated as interpretive rules and become effective

in accordance with the provisions of this section without further rulemaking procedures.

(5) Notwithstanding any other provisions of this section, the Coast Guard may choose, in its discretion, to conduct further rulemaking procedures at any time to amend this subchapter, including updates of the AAWPP.

(6) Updates to the AAWPP used in calculations showing compliance with this subchapter will be published in a separate **Federal Register** notice and other appropriate media, except when the Coast Guard conducts further rulemaking procedures under paragraph (d)(5) of this section.

(7) Notwithstanding any other provisions of this section, the Coast Guard may choose, in its discretion, to delay or dispense with any update of the AAWPP. In the event the Coast Guard elects to dispense with or delay an update that would otherwise issue as an interpretive rule pursuant to the provisions of this section, the Coast Guard will inform the public of the decision and explain the reasons in a **Federal Register** notice.

(e) To obtain an AAWPP update, add the mean weight of all U.S. males aged 20 years and older to the mean weight of all U.S. females aged 20 years and older, and divide the sum by 2. To this average of the mean weights, add 7.5 pounds of assumed clothing weight, and round the resulting sum to the nearest whole number in pounds.

(f) Updates to the AAWPP will become effective beginning one calendar year after publication in the **Federal Register** of a notice described in paragraphs (d)(3) and (d)(6) of this section, except the initial AAWPP issued pursuant to paragraph (d)(1) of this section will become effective on December 1, 2011. Notwithstanding any other provisions of this title, the Coast Guard may implement updates to the AAWPP at any time with less than one year of public notice when required for public safety reasons.

(g) The most recent **Federal Register** notice that publishes the AAWPP as determined by this section is also on file at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-521), 2100 2nd St., SW., Stop 7126, Washington DC 20593-7126, or go to: <http://www.uscg.mil/hq/cg5/cg5212.asp>.

**§ 170.093 [Amended]**

■ 29. In § 170.093, remove the last sentence.

**§ 170.100 [Amended]**

■ 30. In § 170.100, remove paragraphs (c) and (d).

■ 31. Add § 170.105(b)(5) to read as follows:

**§ 170.105 Applicability.**

\* \* \* \* \*

(b) \* \* \*

(5) A small passenger vessel inspected under subchapter T of this chapter if § 178.210(c) of this chapter is applicable.

**§ 170.110 [Amended]**

■ 32. In § 170.110(b), remove the words “or the ABS”.

**§ 170.120 [Amended]**

■ 33. In § 170.120(a), remove the words “or the ABS”.

**§ 170.135 [Removed and Reserved]**

■ 34. Remove and reserve § 170.135.

■ 35. Add § 170.140 to subpart D to read as follows:

**§ 170.140 Operating information for a vessel constructed on or after January 1, 2009 and issued a SOLAS safety certificate.**

(a) This section applies to each vessel that is—

(1) Constructed on or after January 1, 2009; and

(2) Issued either a SOLAS Passenger Ship Safety Certificate or a SOLAS Cargo Ship Safety Construction Certificate.

(b) In addition to the information required in § 170.110 of this part, the stability booklet of each vessel to which this section applies must contain the information required by applicable regulations of IMO Res. MSC.216(82) (incorporated by reference, see § 170.015).

(c) As used in SOLAS chapter II–1, *Administration* means the Commandant, U.S. Coast Guard.

■ 36. Revise the heading of subpart E to read as follows:

**Subpart E—Intact Stability Criteria**

■ 37. In § 170.160, revise paragraphs (a) and (c)(3) and add paragraph (d) to read as follows:

**§ 170.160 Specific applicability.**

(a) Except as provided in paragraphs (b) through (d) of this section, this subpart applies to each vessel.

\* \* \* \* \*

(c) \* \* \*

(3) A vessel that performs one of the simplified stability proof tests described in subpart C of part 178 of this chapter.

(d) A vessel that complies with § 170.165 of this part need not comply with §§ 170.170 and 170.173 of this part.

■ 38. Add § 170.165 to read as follows:

**§ 170.165 International Code on Intact Stability.**

(a) Each vessel issued one or more of the certificates listed in paragraphs (a)(1) through (4) of this section, must comply with the Introduction and Part A of the International Code on Intact Stability, 2008 (2008 IS Code), unless permitted otherwise (incorporated by reference, see § 170.015).

(1) International Load Line Certificate.  
(2) SOLAS Passenger Ship Safety Certificate.

(3) SOLAS Cargo Ship Safety Construction Certificate.

(4) High-speed Craft Safety Certificate.  
(b) A vessel not subject to the requirements of paragraph (a) of this section is permitted to comply with the applicable criteria contained in the 2008 IS Code as an alternative to the requirements of §§ 170.170 and 170.173 of this part.

■ 39. In § 170.170:

■ a. Revise the section heading to read as set forth below;

■ b. In the first sentence of paragraph (d), add the words “the conditions of loading and operation of” after the words “application to”;

■ c. In the first sentence of paragraph (d), remove the words “that carry cargo below the main deck” and add, in their place, “for which the righting arm (GZ) at the angle (T), calculated after the vessel is permitted to trim free until the trimming moment is zero, is not less than the minimum metacentric height (GM) calculated in paragraph (a) of this section multiplied by sin(T)”;

■ d. In the second sentence of paragraph (d), remove the words “or the ABS”.

**§ 170.170 Weather criteria.**

\* \* \* \* \*

**§ 170.173 [Amended]**

■ 40. In § 170.173(a) introductory text, remove the words “or the ABS”.

**§ 170.175 [Amended]**

■ 41. In § 170.175:

■ a. In paragraph (b) remove the words “or ABS”; and

■ b. In paragraphs (c) and (d) remove the words “or the ABS”.

**§ 170.180 [Amended]**

■ 42. In § 170.180 introductory text, remove the words “or ABS” in both places where it appears.

**§ 170.185 [Amended]**

■ 43. In § 170.185(b), remove the words “or the ABS”.

**§ 170.190 [Amended]**

■ 44. In § 170.190, remove the words “or ABS”.

**§ 170.235 [Amended]**

■ 45. In § 170.235(b), remove the words “or the ABS”.

■ 46. In § 170.248, revise paragraph (a) and add paragraph (d) to read as follows:

**§ 170.248 Applicability.**

(a) Except as provided in paragraphs (b) through (d) of this section, this subpart applies to vessels with watertight doors in bulkheads that have been made watertight to comply with the flooding or damage stability regulations in this subchapter.

\* \* \* \* \*

(d) Unless permitted otherwise, each vessel constructed on or after January 1, 2009 and issued a SOLAS Passenger Ship Safety Certificate or a SOLAS Cargo Ship Safety Construction Certificate must comply with the applicable regulations of IMO Res. MSC.216(82) in addition to the requirements of this subpart (IMO Res. MSC.216(82) incorporated by reference, see § 170.015).

**PART 171—SPECIAL RULES PERTAINING TO VESSELS CARRYING PASSENGERS**

■ 47. The authority citation for part 171 continues to read as follows:

**Authority:** 46 U.S.C. 2103, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 48. In § 171.001, revise paragraph (a), and add paragraphs (c) and (d) to read as follows:

**§ 171.001 Applicability.**

(a) Except as provided in paragraph (d) of this section, this part applies to passenger vessels inspected under subchapter K or H of this chapter, or a passenger vessel the stability of which is questioned by the Officer in Charge, Marine Inspection (OCMI).

\* \* \* \* \*

(c) Specific sections of this part may also apply to a small passenger vessel inspected under subchapter T of this chapter. The specific sections are listed in subparts B and C of part 178 of this chapter and in subpart B of part 179 of this chapter.

(d) Unless permitted otherwise, a passenger vessel constructed on or after January 1, 2009, and issued a SOLAS Passenger Ship Safety Certificate must meet the applicable requirements of IMO Res. MSC.216(82) (incorporated by

reference, see § 171.012), instead of the requirements of this part. For the purposes of this section, the applicable requirements of IMO Res. MSC.216(82) are equivalent to the requirements of this part when applied to such vessels.

■ 49. Add new § 171.012 to read as follows:

**§ 171.012 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). It is also available for inspection at the Coast Guard, Office of Design and Engineering Standards, Naval Architecture Division (CG-5212), 2100 2nd St., SW., Stop 7126, Washington, DC 20593-7126, and is available from the sources listed below.

(b) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Resolution MSC.216(82), Amendments to the International Convention for the Safety of Life At Sea, 1974, As Amended (IMO Res. MSC.216(82), Adopted on 8 December 2006, incorporation by reference (IBR) approved for §§ 171.001 and 171.080.

(2) Resolution MSC 267(85), Adoption of the International Code on Intact Stability, 2008 (2008 IS Code), Adopted on 4 December 2008, IBR approved for § 171.050.

■ 50. Add the heading of subpart B to read as follows:

**Subpart B—Intact Stability**

**Subpart C—[Amended]**

■ 51. Remove the heading for subpart C and transfer §§ 171.045, 171.050, 171.055, and 171.057 to subpart B.

■ 52. Revise § 171.045 to read as follows:

**§ 171.045 Weight of passengers and crew.**

(a) This section applies to each vessel, regardless of when constructed.

(b) Compliance with the intact stability requirements applicable to each

vessel, using a total weight of passengers and crew carried, is based upon an Assumed Average Weight per Person, which is determined in accordance with § 170.090 of this chapter.

■ 53. Revise § 171.050 to read as follows:

**§ 171.050 Passenger heel requirements for a mechanically propelled or a non-self propelled vessel.**

(a) Each mechanically propelled or non-self propelled vessel other than a pontoon vessel must be shown by design calculations, in each condition of loading and operation, to have a metacentric height (GM) in feet (meters) of not less than the value given by the following equation:

$$GM = [(W/\Delta)^{(2/3)}(b)]/(\tan(T))$$

Where—

Δ = displacement of the vessel in long (metric) tons.

W = total weight in long (metric) tons of persons other than required crew, including personal effects of those persons expected to be carried on the vessel.

T = 14 degrees or the angle of heel at which the deck edge is first submerged, whichever is less; and

b = distance in feet (meters) from the centerline of the vessel to the geometric center of the passenger deck on one side of the centerline.

(b) The criteria specified in paragraph (a) of this section are limited in application to the conditions of loading and operation of vessels for which the righting arm (GZ) at the angle (T), calculated after the vessel is permitted to trim free until the trimming moment is zero, is not less than the minimum metacentric height (GM) calculated in paragraph (a) of this section multiplied by sin(T). In conditions not meeting this requirement, the Coast Guard Marine Safety Center requires calculations in addition to those in this section.

(c) A vessel that complies with the requirements for passenger ships contained in the International Code of Intact Stability, 2008 (2008 IS Code) (incorporated by reference, see § 171.012) need not comply with paragraphs (a) or (b) of this section. Vessels complying with the 2008 IS Code must use the Assumed Average Weight per Person obtained according to § 170.090 of this title to be exempt from the other requirements of this section.

■ 54. Add new § 171.052 to subpart B to read as follows:

**§ 171.052 Passenger heel requirements for pontoon vessels.**

(a) Each pontoon vessel, in each condition of loading and operation,

must have an area under the righting arm curve from the angle of equilibrium to an angle of 40 degrees, the downflooding angle, or the angle of the maximum righting arm, whichever is less, of at least:

(1) For operation on exposed or partially protected waters—

(i) 10 foot-degrees with a crowding density of 5 square feet per person (2.15 persons per square meter); and

(ii) 7 foot-degrees with a crowding density of 2 square feet per person (5.38 persons per square meter); and

(2) For operation on protected waters—

(i) 5 foot-degrees with a crowding density of 5 square feet per person (2.15 persons per square meter); and

(ii) 2 foot-degrees with a crowding density of 2 square feet per person (5.38 persons per square meter).

(b) When assessing compliance with the criteria of this section, passengers are assumed to be distributed in all areas accessible to passengers so as to produce the most unfavorable combination of heel and trim.

■ 55. Add a new heading for subpart C, above § 171.060, to read as follows:

**Subpart C—Subdivision and Damage Stability**

**§ 171.060 [Amended]**

■ 56. In § 171.060(a) introductory text, remove the words “or § 171.075 for Type III subdivision”.

**§ 171.065 [Amended]**

■ 57. In § 171.065(b)(2), remove the second equation, “Y = (M + 2P)/(V + P1 - P)” and add, in its place, the equation “Y = (M + 2P1)/(V + P1 - P)”.

**§ 171.070 [Amended]**

■ 58. In § 171.070 revise the introductory text of paragraph (e)(1) to read as follows:

**§ 171.070 Subdivision requirements—Type II.**

\* \* \* \* \*

(e) \* \* \*

(1) Unless otherwise permitted, if the LBP of the vessel is 143 feet (43.5 meters) or more, or the vessel makes international voyages, each main transverse watertight bulkhead must be at least 10 feet (3 meters) plus 3 percent of the vessel’s LBP from—

\* \* \* \* \*

**§ 171.075 [Removed and Reserved]**

■ 59. Remove and reserve § 171.075.

**§ 171.080 [Amended]**

■ 60. In § 171.080—

■ a. In paragraph (f)(4)(i), remove “w = passenger weight = 75 kilograms,” and

add, in its place, “w = passenger weight used for calculations as determined in accordance with § 170.090(c) of this chapter”;

■ b. Revise paragraph (f)(4)(ii)(A) to read as set forth below; and

■ c. In the heading to paragraph (g), after the word “vessels”, add the words “constructed before January 1 2009”, and in paragraph (g) text, remove the words “chapter II–1, part B, regulation 8” and, in their place, add the words “the applicable regulations of IMO Res. MSC.216(82) (incorporated by reference, see § 171.012)”.

**§ 171.080 Damage stability standards for vessels with Type I or Type II subdivision.**

\* \* \* \* \*

- (f) \* \* \*
- (4) \* \* \*
- (ii) \* \* \*

(A) The weight of each passenger is the weight used for calculations as determined in accordance with § 170.090(c) of this chapter;

\* \* \* \* \*

**§ 171.082 [Removed]**

■ 61. Remove § 171.082.

**PART 172—SPECIAL RULES PERTAINING TO BULK CARGOES**

■ 62. The authority citation for part 172 continues to read as follows:

**Authority:** 46 U.S.C. 3306, 3703, 5115; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 63. Revise § 172.020 to read as follows:

**§ 172.020 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). It is also available for inspection at the Coast Guard, Office of Design and Engineering Standards, Naval Architecture Division (CG–5212), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126, and is available from the sources listed below.

(b) International Maritime Organization (IMO), Publications

Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Amendment to Chapter VI of the International Convention for the Safety of Life at Sea, 1960, Resolution A.264(VIII), incorporation by reference (IBR) approved for § 172.015.

(2) Publication No. 240–E, International Code for the Safe Carriage of Grain in Bulk, IBR approved for § 172.015.

(3) Resolution MEPC.117(52), Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (IMO Res. MEPC.117(52)), Adopted on 15 October 2004, IBR approved for § 172.070.

■ 64. Revise § 172.070 to read as follows:

**§ 172.070 Intact stability.**

All tank vessels of 5,000 deadweight tons (DWT) and above, contracted after December 3, 2001, must comply with the intact stability requirements of IMO Res. MEPC.117(52) (incorporated by reference, see § 172.020).

**PART 174—SPECIAL RULES PERTAINING TO SPECIFIC VESSEL TYPES**

■ 65. The authority citation for part 174 continues to read as follows:

**Authority:** 42 U.S.C. 9118, 9119, 9153; 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 66. Revise § 174.007 to read as follows:

**§ 174.007 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). It is also available for inspection at the Coast Guard, Office of Design and Engineering Standards, Naval Architecture Division (CG–5212), 2100 2nd St. SW., Stop 7126,

Washington, DC 20593–7126, and is available from the sources listed below.

(b) American Society for Testing and Materials (ASTM) 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

(1) ASTM F 1196–00, Standard Specification for Sliding Watertight Door Assemblies, 2008, incorporation by reference (IBR) approved for § 174.100.

(2) ASTM F 1197–00, Standard Specification for Sliding Watertight Door Control Systems, 2007, IBR approved for § 174.100.

(c) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Resolution MSC.216(82), Adoption of Amendments to the International Convention for the Safety of Life At Sea, 1974, As Amended (IMO Res. MSC.216(82)), Adopted on 8 December 2006, IBR approved for § 174.360.

(2) [Reserved]

■ 67. Revise § 174.360 to read as follows:

**§ 174.360 Calculations.**

Each ship to which this subpart applies must comply with the minimum standard of subdivision and damage stability applicable to that ship under IMO Res. MSC.216(82), (incorporated by reference, see § 174.007). Compliance with the applicable requirements must be demonstrated by calculations and reflected in information on loading restrictions, such as a maximum height of the center of gravity (KG) or minimum metacentric height (GM) curve, that is part of the stability information required by § 170.110 of this chapter.

**PART 175—GENERAL PROVISIONS**

■ 68. Revise the authority citation for part 175 to read as follows:

**Authority:** 46 U.S.C. 2103, 3205, 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1; § 175.900 also issued under 44 U.S.C. 3507.

■ 69. In § 175.400, add new definitions for “Pontoon vessel”, “Total test weight” and “Variable load” in alphabetical order to read as follows:

**§ 175.400 Definition of terms used in this subchapter.**

\* \* \* \* \*

*Pontoon vessel* means any vessel having two or more watertight hulls, which are structurally independent from the vessel’s deck or cross structure.

\* \* \* \* \*



*Total test weight* means the weight used to simulate heeling and trimming moments when a simplified stability test is performed in accordance with § 178.330 or § 178.340 of this subchapter.

\* \* \* \* \*

*Variable load* means the weight of all items brought on board a vessel for which explicit account is not made in approved stability calculations, including but not limited to, personal effects, carry-on items, luggage, and equipment of any kind.

\* \* \* \* \*

**PART 176—INSPECTION AND CERTIFICATION**

■ 70. The authority citation for part 176 continues to read as follows:

**Authority:** 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307; 49 U.S.C. App. 1804; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 743; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 71. In § 176.110, revise paragraphs (d)(2) and (d)(3), and add paragraph (d)(4) to read as follows:

**§ 176.110 Routes permitted.**

\* \* \* \* \*

(d) \* \* \*

(2) The performance capabilities of the vessel based on design, scantlings, stability, subdivision, propulsion, speed, operating modes, maneuverability, and other characteristics;

(3) The suitability of the vessel for nighttime operations; and

(4) The suitability of the vessel for all environmental conditions.

■ 72. Revise § 176.112 to read as follows:

**§ 176.112 Total persons permitted.**

The cognizant Officer in Charge, Marine Inspection (OCMI) determines the total number of persons permitted to be carried on a vessel. In determining the total number of persons, the OCMI may consider the total weight of passengers, crew, and variable loads; stability restrictions and subdivision requirements of the vessel; the vessel’s route, general arrangement, means of escape, and lifesaving equipment; minimum manning requirements; and the maximum number of passengers permitted in accordance with § 176.113 of this part.

**§ 176.610 [Amended]**

■ 73. In § 176.610, add a sentence to the end of paragraph (a) to read as follows:

**§ 176.610 Scope of drydock and internal structural examinations.**

(a) \* \* \* The accuracy of draft or loading marks, its accuracy by § 185.602 of this chapter, must be verified if not verified at a previous drydock examination.

\* \* \* \* \*

**§ 176.900 [Amended]**

■ 74. In § 176.900(a)—  
 ■ a. Add the words “is certificated for or” after the word “which”;  
 ■ b. Remove the word “an”; and  
 ■ c. Remove the word “voyage” and add, in its place, the word “voyages”.

**§ 176.910 [Amended]**

■ 75. In § 176.910(a)—  
 ■ a. Remove the word “issues” in the second sentence and add, in its place, the words “authorizes the cognizant OCMI to issue”; and  
 ■ b. In the last sentence, after the word “will”, add the words “authorize the cognizant OCMI to”.

**§ 176.920 [Amended]**

■ 76. In § 176.920(d), after the word “will” in the first and second sentences, add the words “authorize the cognizant OCMI to”.

**§ 176.930 [Amended]**

■ 77. In § 176.930, in the last sentence, remove the words “Commandant will indicate the” and after the word “equivalent”, add the words “must be indicated”.

**PART 178—INTACT STABILITY AND SEAWORTHINESS**

■ 78. The authority citation for part 178 continues to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 2103, 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

**§ 178.115 [Amended]**

■ 79. In § 178.115, remove the word “An” and add in its place “an”, and at the beginning of the paragraph, add the words “Except where specifically stated otherwise.”.

■ 80. In § 178.210, revise the first sentence of paragraphs (a) and (b), revise paragraph (c), and add paragraph (d) to read as follows:

**§ 178.210 Stability information.**

(a) Stability information (stability details indicated on the Certificate of Inspection, a stability letter, or a stability booklet), is required on certain vessels by paragraphs (b), (c), or (d) of this section. \* \* \*

(b) A vessel which, under § 178.310 of this part, complies with requirements in

subchapter S of this chapter, must have stability details on the vessel’s Certificate of Inspection, a stability letter issued by the cognizant Officer in Charge, Marine Inspection (OCMI) or the Commanding Officer, Marine Safety Center, or an approved stability booklet. \* \* \*

(c) When necessary for safe operation, the cognizant OCMI may place specific stability restrictions in a stability letter or on the Certificate of Inspection of a vessel not more than 65 feet (19.8 meters) in length, which, under § 178.310 of this part, complies with the requirements of § 178.320 of this part.

(d) Each pontoon vessel must have a stability letter and each stability letter issued after March 14, 2011 must be issued by the Commanding Officer, Marine Safety Center.

■ 81. Add new § 178.215 to read as follows:

**§ 178.215 Weight of passengers and crew.**

(a) This section applies to each vessel, regardless of when constructed, for which stability information is based on the results of a simplified stability proof test.

(b) Except as provided in paragraph (c) of this section, and if not provided in the stability information required, the owner of each vessel must provide the master with the total test weight used in the simplified stability proof test and the number of passengers and crew included in the total test weight. Owners and masters must use a total weight of passengers and crew carried that is based upon an assumed weight per person, which is determined in accordance with § 170.090 of this chapter.

(c) The information specified in paragraph (b) of this section need not be provided if the owner attests that the vessel complies with applicable intact stability requirements when carrying the number of passengers and crew permitted by the Certificate of Inspection with an assumed weight per person determined in accordance with § 170.090 of this chapter.

■ 82. In § 178.230, revise paragraphs (b) introductory text and (b)(1), and add paragraph (c) to read as follows:

**§ 178.230 Stability letter or Certificate of Inspection stability details.**

\* \* \* \* \*

(b) If § 178.210(b) of this part applies, the applicable information described in subpart C of part 170 of this title, and the calculations used to determine that information, must be submitted in addition to the applicable information listed in paragraph (b) of this section.

(1) Allowable weight and number of passengers and crew on each deck;

\* \* \* \* \*

(c) If § 178.210(c) of this part applies, the allowable weight and number of passengers and crew on each deck, and the necessary calculations used to determine that information, must be submitted in accordance with paragraph (a) of this section.

■ 83. Revise § 178.310 to read as follows:

**§ 178.310 Intact stability requirements—general.**

(a) Except as provided in paragraph (c) of this section, each vessel must, in each condition of loading and operation, comply with the applicable requirements of—

(1) Part 170 of this chapter, except subparts G and H; and

(2) Part 171 of this chapter, subparts A and B.

(b) Sailing vessels must meet the appropriate requirements of § 171.055 or § 171.057 in subchapter S in this chapter while under sail, as well as the requirements of § 170.170 in subchapter S in this chapter while under bare poles (if an auxiliary sailing vessel as defined in § 170.055(a) of this chapter) and with storm sails set and trimmed flat (if a sailing vessel as defined in § 170.055(n) of this chapter).

(c) As an alternative to meeting the requirements of paragraphs (a) and (b) of this section, a vessel may demonstrate compliance with an appropriate standard set forth in either § 178.320 of this part for non-sailing vessels or § 178.325 of this part for monohull sailing vessels if all of the following criteria are satisfied:

(1) The length is not more than 19.8 meters (65 feet) in length;

(2) The vessel does not carry more than 12 passengers on an international voyage;

(3) The vessel either does not have more than one deck above the bulkhead deck or, if without a bulkhead deck, does not have more than one deck above the deck from which freeboard is measured excluding a pilot house; and

(4) The vessel's stability has not been questioned by the cognizant Officer in Charge, Marine Inspection (OCMI).

(d) In lieu of the requirements in paragraphs (a) through (c) of this section, a vessel may meet another stability standard approved by the Commanding Officer, Marine Safety Center.

■ 84. Revise § 178.320 to read as follows:

**§ 178.320 Intact stability requirements—non-sailing vessels.**

(a) As permitted by § 178.310(c) of this part, the following vessels may undergo the simplified stability proof test detailed in § 178.330 of this part, in the presence of a Coast Guard marine inspector, if they do not have tumblehome at the deck, measured amidships, that exceeds 2 percent of the beam:

(1) Monohull vessels; and

(2) Flush deck catamaran vessels which are not pontoon vessels and carry not more than 49 passengers.

(b) As permitted by § 178.310(c) of this part, a self-propelled pontoon vessel may undergo the pontoon simplified stability proof test detailed in § 178.340 of this part, in the presence of a Coast Guard marine inspector, if it satisfies all of the following requirements:

(1) The vessel carries not more than 49 passengers and does not make international voyages;

(2) The vessel operates on Protected Waters only;

(3) The vessel is constructed with only one deck;

(4) The buoyant hull volume consists of two symmetric, fully enclosed hulls;

(5) The cross section of each hull is circular or of wall-sided construction without tumblehome, and constant for at least 90 percent of the length of the hull;

(6) The hulls contain no machinery or tanks;

(7) The portion of the deck accessible to passengers does not extend beyond—

(i) The outboard edge of the hulls, and

(ii) The forward or the aft end of the hulls;

(8) There is no deck more than 0.15 meters (6 inches) above any point on any of the buoyant hulls;

(9) The distance between the centerlines of the hulls is not less than 1.83 meters (6 feet); and

(10) Each hull has a beam or diameter, as applicable, of not less than 0.61 meters (2 feet).

(c) For a vessel that carries not more than 49 passengers, carries no deck cargo, and is otherwise eligible to undergo the simplified stability proof test detailed in §§ 178.330 or 178.340 of this part, the authority issuing the stability letter may—

(1) Dispense with the requirements of the simplified stability proof test in §§ 178.330 or § 178.340 of this part when the vessel's stability can be adequately assessed by alternate means giving due consideration to each item that impacts a vessel's stability characteristics which include, but are not limited to, the form, arrangement,

construction, number of decks, route, and operating restrictions of the vessel; or

(2) Authorize a change in the requirements of the simplified stability proof test in either §§ 178.330 or 178.340 of this part, when necessary to adequately assess the vessel's stability.

■ 85. Revise § 178.325 to read as follows:

**§ 178.325 Intact stability requirements—monohull sailing vessels.**

(a) As permitted by § 178.310(c) of this part, a monohull sailing vessel may demonstrate compliance with paragraphs (b) or (c) of this section if it satisfies all of the following requirements:

(1) It does not operate on exposed waters;

(2) It only operates during the daylight hours;

(3) It is of the usual type, rig, and hull form, excluding vessels without a weathertight deck, such as open boats;

(4) It carries not more than 49 passengers;

(5) It is not a sailing school vessel that carries a combined total of six or more sailing school students and instructors;

(6) Its minimum downflooding angle is greater than 60 degrees;

(7) It does not have a cockpit greater than 20 percent of the Length Over Deck; and

(8) If equipped with a cockpit and operating on Partially Protected Waters, the cockpit must be self-bailing.

(b) The vessel may undergo the simplified stability proof test detailed in § 178.330 of this part, in the presence of a Coast Guard marine inspector, if it does not have tumblehome at the deck, measured amidships, that exceeds 2 percent of the beam.

(c) The cognizant Officer in Charge, Marine Inspection (OCMI) may perform operational tests to determine whether the vessel has adequate stability and satisfactory handling characteristics under sail for protected waters or partially protected waters.

(d) The Commanding Officer, Marine Safety Center, may prescribe additional or different stability requirements for a broad, shallow draft vessel with little or no ballast outside the hull.

■ 86. In § 178.330, revise the section heading, paragraphs (a), (b), and (d)(6), and add paragraph (d)(7) to read as follows:

**§ 178.330 Simplified stability proof test (SST).**

(a) A vessel must be in the condition specified in this paragraph when a simplified stability proof test is performed.

(1) The construction of the vessel is complete in all respects.

(2) Ballast, if necessary, is in compliance with § 178.510 of this part and is on board and in place.

(3) Each fuel and water tank is approximately three-quarters full. Any sewage tank should be either empty or full.

(4) A weight equal to the total weight of all passengers, crew, and variable loads permitted on the vessel is on board and distributed so as to provide normal operating trim and to simulate the vertical center of gravity, causing the least stable condition that is likely to occur in service. The assumed weight per person of passengers and crew must be representative of the passengers and crew on board the vessel while engaged in the service intended. Unless the cognizant Officer in Charge, Marine Inspection (OCMI) permits or requires the use of other values in writing, weight and vertical center of gravity are to be assumed as follows:

(i) The weight of primary lifesaving equipment should be simulated at its normal location, if not on board at the time of the test.

(ii) The assumed weight per person is determined as provided by § 170.090 of this chapter.

(iii) The weight and associated vertical center of gravity of variable loads must be included as appropriate for the service intended and documented in the stability information required by subpart B of this part.

(iv) The vertical center for the total test weight must be at least 30 inches (760 millimeters) above the deck for seated passengers, and at least 39 inches (1.0 meter) above the deck for standing passengers.

(v) If the vessel carries passengers on diving excursions, the total weight of diving gear must be included in the loaded condition and placed in its stowed position. Not less than 80 pounds (36.3 kilograms) should be assumed for each person for whom diving gear is provided.

(vi) On vessels having one upper deck available to passengers above the main deck, the weight distribution must not be less severe than the following:

$$\text{Total Test Weight (W)} = \frac{\text{Passenger Capacity of Upper Deck:}}{\text{Weight on Upper Deck} = (\text{Number of Passengers on Upper Deck}) * (\text{Wt per Passenger}) * 1.33}$$

$$\text{Weight on Main Deck} = \text{Total Test Weight} - \text{Weight on Upper Deck.}$$

(5) All non-return closures on cockpit scuppers or on weather deck drains must be kept open during the test.

(b) A vessel must not exceed the limitations in paragraph (d) of this section, when subjected to the greater of the following heeling moments:

$$M_p = (W) (B_p) / 6; \text{ or}$$

$$M_w = (P) (A) (H)$$

Where:

$M_p$  = passenger heeling moment in foot-pounds (kilogram-meters);

$M_w$  = Wind heeling moment in foot-pounds (kilogram-meters)

W = the total weight of persons other than required crew, plus the personal effects of those persons expected to be carried while aboard the vessel (total test weight) in pounds (meters);

$B_p$  = the maximum transverse distance in feet (meters) of a deck that is accessible to passengers;

A = Area, in square feet (square meters), of the projected lateral surface of the vessel above the waterline (including each projected area of the hull, superstructure, cargo, masts, area bounded by railings and canopies, but not protruding fixed objects such as antennas or running rigging).

\* \* \* \* \*

(d) \* \* \*

(6) On a non-sailing flush deck catamaran that is propelled by mechanical means, not more than one-third of the freeboard or one-third of the draft, whichever is less, may be immersed.

(7) In no case may the angle of heel exceed 14 degrees.

\* \* \* \* \*

■ 87. Revise § 178.340 to read as follows:

**§ 178.340 Stability standards for pontoon vessels on protected waters.**

(a) A pontoon vessel meeting the applicability requirements of § 178.320 of this part must be in the condition described in § 178.330(a) of this part when the PSST is performed, except that fuel, water and sewage tanks should either be empty or filled to 100 percent capacity, whichever is more conservative.

(b) A pontoon vessel must not exceed the limitations in paragraph (c) of this section when subjected to the greater of the following heeling moments:

$$M_{pc} = [(W)(B_p - K)] / 2; \text{ or}$$

$$M_w = (P) (A) (H)$$

Where:

$M_{pc}$  = passenger and crew heeling moment in foot-pounds (kilogram-meters);

W = the total weight of passengers and crew aboard (total test weight) in pounds (kilograms);

$B_p$  = the maximum transverse distance of the deck accessible to passengers in feet (meters);

K = 2.0 feet (0.61 meters);

$M_w$  = Wind heeling moment in foot-pounds (kilogram-meters)

P = Wind pressure of 7.5 pounds/square foot (36.6 kilograms/square meter);

A = Area, in square feet (square meters), of the projected lateral surface of the vessel above the waterline (including each projected area of the pontoons, superstructure and area bounded by railings and structural canopies); and

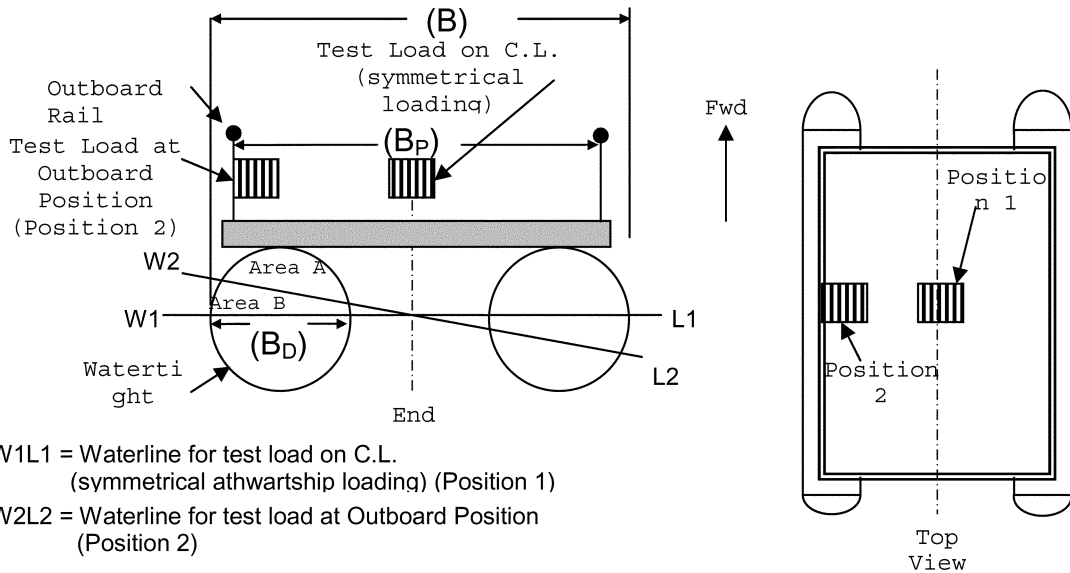
H = Height, in feet (meters), of the center of area (A) above the waterline, measured up from the waterline.

(c) With the appropriate heeling moment applied to the most adversely affected side of the vessel, the remaining exposed cross-sectional area of the pontoon must be equal to or greater than both—

(1) The cross-sectional area submerged due to the load shift (for an example, see Figure 178.340(c)(1) of this section); and

Figure 178.340(c)(1)

**PSST TRANSVERSE STABILITY**



W1L1 = Waterline for test load on C.L. (symmetrical athwartship loading) (Position 1)

W2L2 = Waterline for test load at Outboard Position (Position 2)

Area A = pontoon cross-sectional area above W2L2

Area B = pontoon cross-sectional area between W1L1 and W2L2

With load in outboard position (Position 2), Area A must be equal or greater than both Area B and 1/4 of the cross-sectional area of one pontoon.

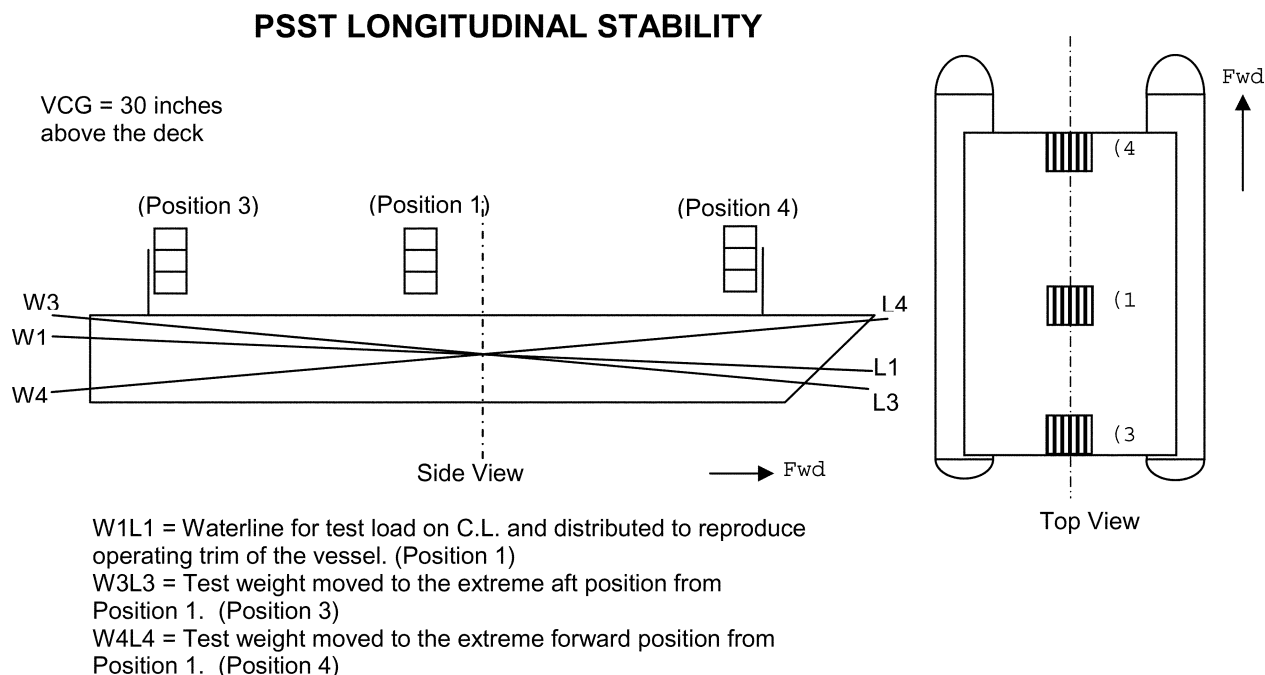
(2) One-quarter of the cross-sectional area on one pontoon.

(d) A pontoon vessel must also be tested to determine whether trimming moments will submerge the bow or

stern of the buoyant hull. The top of any pontoon must not be submerged at any location, as indicated in Figure 178.340(d) of this section, with the total

test weight (W) located on the centerline and positioned as far forward or aft on the deck as practicable, whichever position results in the least freeboard.

Figure 178.340(d)



With the test load at the extreme aft position (Position 3) and at the extreme forward position (Position 4), the top of the pontoon must not be submerged.

#### PART 179—SUBDIVISION, DAMAGE STABILITY, AND WATERTIGHT INTEGRITY

■ 88. The authority citation for part 179 continues to read as follows:

**Authority:** 43 U.S.C. 1333; 46 U.S.C. 2103, 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 89. Add new § 179.15 to subpart A to read as follows:

##### § 179.15 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). It is also available

for inspection at the Coast Guard, Office of Design and Engineering Standards, Naval Architecture Division (CG-5212), 2100 2nd St., SW., Stop 7126, Washington, DC 20593-7126, and is available from the sources listed in paragraph (b) of this section.

(b) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Resolution MSC.216(82), Adoption of Amendments to the International Convention for the Safety of Life At Sea, 1974, As Amended (IMO Res. MSC.216(82)), Adopted on 8 December 2006, IBR approved for § 179.212.

(2) [Reserved]

■ 90. Revise § 179.212 to read as follows:

##### § 179.212 Watertight bulkheads for subdivision and damage stability.

(a) Except as provided in paragraph (c) of this section, each vessel must comply with the Type II subdivision and damage stability requirements of §§ 171.070 through 171.073 and 171.080 of this chapter if it meets one or more of the following criteria:

(1) Is more than 19.8 meters (65 feet) in length;

(2) Carries more than 49 passengers;

(3) Is constructed of wood on or after March 11, 2001, and operates in cold water; or

(4) Is constructed before January 1, 2009 and carries more than 12 passengers on an international voyage.

(b) Vessels constructed on or after January 1, 2009 and carrying more than 12 passengers on an international voyage must comply with the applicable requirements of IMO Res. MSC.216(82) (incorporated by reference, see § 179.15) unless permitted otherwise.

(c) As an alternative to complying with the Type II subdivision and damage stability requirements of §§ 171.070 through 171.073 and 171.080 of this chapter, a monohull vessel which undergoes a simplified stability proof test in accordance with § 178.330 of this chapter may comply with § 179.220 of this part.

(d) For the purpose of demonstrating compliance with the Type II subdivision and damage stability requirements of §§ 171.070 through 171.073 and 171.080 of this chapter, the requirements of IMO Res. MSC.216(82) may be considered equivalent.

- 91. In § 179.220—
- a. In Table 179.220(a) remove the term “d/L” and in its place, add the term “x/L”
- b. In note 1 to Table 179.220(a), remove the term “d = distance”, and in its place, add the term “x = distance”; and
- c. Add paragraph (c) to read as follows:

**§ 179.220 Location of watertight bulkheads for subdivision.**

\* \* \* \* \*

(c) Calculations needed to demonstrate compliance with paragraphs (a) and (b) of this section must be submitted to, and approved by, the Commanding Officer, Marine Safety Center.

**§ 179.230 [Removed and reserved]**

- 92. Remove and reserve § 179.230.

**PART 185—OPERATIONS**

- 93. The authority citation for part 185 continues to read as follows:

**Authority:** 46 U.S.C. 2103, 3306, 6101; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp.,

p. 277; Department of Homeland Security Delegation No. 0170.1.

- 94. In § 185.304, revise paragraph (a)(3) and add paragraph (b) to read as follows:

**§ 185.304 Navigation underway.**

(a) \* \* \*

(3) Prevailing and forecasted visibility and environmental conditions, including wind and waves;

\* \* \* \* \*

(b) Masters of vessels not greater than 65 ft (19.8 m) in length must have means available, satisfactory to the Officer in Charge, Marine Inspection (OCMI), to obtain or monitor the latest marine broadcast in order to comply with the requirements of paragraph (a) of this section.

- 95. In § 185.315, designate the existing paragraph as paragraph (a) and add paragraph (b) to read as follows:

**§ 185.315 Verification of vessel compliance with applicable stability requirements.**

\* \* \* \* \*

(b) In order to fulfill the requirements of paragraph (a) of this section and avoid overloading the vessel, the master must take into account the total weight of passengers, crew, and variable loads.

**§ 185.602 [Amended]**

- 96. In § 185.602—

■ a. In paragraph (b) introductory text, remove the words “that fits into any one of the following categories:” and add, in their place, the words “that does not demonstrate compliance in accordance with § 178.310(c) of this chapter.”;

■ b. Remove paragraphs (b)(1) through (b)(3); and

■ c. In paragraph (c), remove the words “that complies with the stability requirements of §§ 170.170, 170.173, 171.050, 171.055, and 171.057 of this chapter or in accordance with § 178.310 of this chapter.”.

Dated: November 17, 2010.

**J.G. Lantz,**

*Director of Commercial Regulations and Standards, U.S. Coast Guard.*

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