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NVIC 3-97

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3-97

Subj: STABILITY RELATED REVIEW PERFORMED BY THE AMERICAN BUREAU OF SHIPPING FOR U.S. FLAG VESSELS

1. PURPOSE. The purpose of this Circular is to outline the procedures for Coast Guard acceptance of stability related review and for stability letters issued for U.S. flag vessels by the American Bureau of Shipping (ABS).
2. DIRECTIVES AFFECTED. This Circular cancels and supersedes Navigation and Vessel Inspection Circular (NVIC) NO. 3-84, Change 1.
3. AUTHORITY. Title 46, United States Code, Part 3316 authorizes the Coast Guard to accept plan review, inspections, and examinations performed by ABS for compliance with Coast Guard rules and regulations for classed and unclassified vessels.
4. APPLICABILITY.
  - a. This Circular is effective upon publication and is applicable to U.S. flag vessels, including vessels under the Alternate Compliance Program, that will receive a stability review by the ABS. The stability of any U.S. flag vessel, with the exception of certain novel craft (as specified in paragraph 4.d of this NVIC), may be reviewed by the ABS on behalf of the Coast Guard.

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- b. Should a vessel's owner, or the owner's representative, withdraw a request for the ABS review under the provisions of this Circular, the Coast Guard may require certain inspections and plan review by Coast Guard personnel. In such cases, the Marine Safety Center (MSC) will determine which approvals made by the ABS will be accepted by the Coast Guard.
- c. This NVIC authorizes the ABS to review the stability booklet of a ship carrying grain in bulk. Except that, review of grain ship loading stability information and issuance of a Document of Authorization and a Certificate of Loading will remain the sole purview of the National Cargo Bureau (NCB) as stated in Part 93.20 of Title 46 Code of Federal Regulations (CFR). Where the ABS is requested to review the grain ship stability booklet, they will interact with NCB in an identical manner to the current relationship between the MSC and the NCB. The review of ships carrying grain in bulk is discussed in greater detail in NVIC 5-94.
- d. Stability review of certain types of vessels which are novel or have novel design features or which have limited history of certification are excluded from the provisions of this NVIC. Stability review of these vessels may be reserved to the MSC.

### 5. BACKGROUND.

- a. On April 16, 1984, the Coast Guard published NVIC 3-84, "Acceptance of Stability Related Review Performed by the American Bureau of Shipping for New U.S. Flag Vessels." On March 26, 1990, the Coast Guard published NVIC 3-84, Change 1, "Stability Related Review Performed by the American Bureau of Shipping for Load Lined U.S. Flag Vessels."
- b. NVIC 3-84, Change 1, permitted qualified ABS personnel to conduct stability related reviews, including the witnessing of stability tests, on certain categories of load lined vessels. This Circular expands the categories of vessels for which the ABS is authorized to perform stability reviews on behalf of the Coast Guard.
- c. Prior to 1984, all vessel stability reviews were conducted by regional Coast Guard technical offices. Beginning in 1984, the Coast Guard authorized the ABS to perform stability reviews on certain categories of vessels that are issued Load Lines Certificates. The ABS has been recognized as an authorized load line assigning authority of the Coast Guard for U.S. vessels since 1929, and is well-qualified to conduct stability related plan review on behalf of the Coast Guard. In 1986, regional Coast Guard technical offices were replaced by the MSC.

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### 6. IMPLEMENTATION.

- a. The ABS is authorized to issue stability letters on behalf of the Coast Guard for vessels for which they have conducted a complete stability review.
- b. Plan review, inspections, and examinations performed by the ABS under the provisions of this circular may be subject to fees, in addition to normal load line assessment fees authorized by Title 46 CFR, Subchapter E.
- c. Amplifying details for implementation of this Circular are contained in enclosures (1) and (2).

7. APPEALS. If an owner or owner's representative objects to an action or decision of the ABS, discussion of the matter first with the ABS representative and then with the Commanding Officer (CO), MSC, is encouraged. Should the matter be satisfactorily resolved, no further action is required. However, should the matter not be resolved, the decision of the ABS may be appealed using the procedures described in 46 CFR, Part 1.

8. OVERSIGHT. Coast Guard oversight of stability related review performed by the ABS is intended to ensure that stability review activities conducted by the ABS, result in a level of safety equivalent to that which results from the same activities when conducted by the Coast Guard. The MSC will conduct routine and non-routine oversight as described in enclosure (1).

9. ACTION. Ship owners, or their representatives, are encouraged to follow the procedures and guidelines detailed in this Circular. District Commanders, Officers-in-Charge Marine Inspections (OCMIs), and the CO, MSC, shall become familiar with the contents of this Circular and shall follow the specific procedures indicated herein.

Encl: (1) Instruction for Implementation  
(2) Application of Coast Guard Requirements for Acceptance of Stability Related Review by the ABS for U.S. Flag Vessels

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Instructions for Implementation
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1. COAST GUARD ADMINISTRATION.

- a. Administration of stability related review activities conducted by the ABS on behalf of the Coast Guard will include the following elements:
- (1) The MSC will perform routine and non-routine oversight of stability review activities conducted by the ABS. Routine oversight will consist of stability review conducted by the MSC independently of and concurrently with that of the ABS. The number and type of independent reviews will be determined by the MSC. Non-routine oversight will be conducted for cause, should the MSC become aware of any circumstance for which independent Coast Guard review is necessary in the interest of safety. Each such case will be reported to the Commandant and to the Coast Guard Liaison to the ABS by the MSC. Additionally, Coast Guard personnel may accompany ABS surveyors on stability tests being conducted on behalf of the Coast Guard.
  - (2) Inconsistencies identified through a Coast Guard independent review should not be cause for delay in a vessel's delivery unless the variances are so serious as to jeopardize safety. The MSC will maintain open communications with the ABS to attempt to identify and to resolve reasons for inconsistencies. If matters cannot be so resolved, the MSC will refer variances to the Commandant (G-MSE) for final resolution.
  - (3) Coast Guard and ABS personnel will work in close cooperation. Meetings between the Coast Guard and the ABS will be held as needed.
- b. The MSC will be responsible for providing the ABS with guidance and/or stability letter formats illustrating current Coast Guard policies concerning stability letters for various vessel classes.
- c. The MSC will keep the ABS abreast of any changes to U.S. laws and regulations, interpretations and policies of the Coast Guard that will affect stability related reviews performed by the ABS.

2. ABS ADMINISTRATION.

- a. The ABS will advise the submitter by letter, with copies to the MSC and the cognizant Officer in Charge, Marine Inspection (OCMI), at the beginning of the stability related review stating that the review is being conducted in accordance with this Circular. The ABS will note in its correspondence the specific Coast Guard requirements for which a review is being conducted.

- b. The ABS will issue the stability letter for vessels receiving a complete stability review by the ABS. The ABS will send one copy of all associated correspondence and the stability letter or approved trim and stability booklet to the MSC and cognizant OCMI. The ABS will note in its correspondence and on the plans which plans were approved as complying with Coast Guard regulations and policies. At least one copy of the plans and calculations will be returned to the submitter by the ABS.
- c. The ABS may dispense with the stability letter, in accordance with 46 CFR 170.120(b), provided the stability information can be placed on the Load Line Certificate.
- d. The ABS Americas will include in its permanent files, those stability related plans and calculations reviewed under this Circular or produced by the ABS in its review. The contents of the file will be made available to the Coast Guard upon request.
- e. The ABS will refer questions concerning equivalency to Coast Guard regulations and policy to the MSC, with recommendations for acceptance or denial.
- f. The ABS will refer questions concerning apparent conflicts in or among Coast Guard regulations and policy, federal statutes, and international treaties to the MSC for resolution.

3. SUBMITTER'S RESPONSIBILITIES.

The owner, or the owner's representative, desiring stability review under the provisions of this Circular must submit a request to ABS Americas with a copy to MSC. A general description of the vessel, its operation, and route, along with the reason for the stability review should be included with the request. Four complete sets of plans and calculations in support of these tasks should be submitted directly to the ABS.

Application of Coast Guard Requirements for Acceptance of Stability Related  
Review by the ABS for U.S. Flag Vessels

1. ACCEPTED STABILITY RELATED REVIEW BY THE ABS.

The Coast Guard will accept stability related review action by the ABS for all applicable U.S. laws and regulations, international convention requirements, interpretations, and policies of the Coast Guard. In cases where an incomplete package requires supplemental information, the ABS may issue a temporary stability letter, following the guidelines in the Marine Safety Manual, Vol. IV, section 6.C.2, and require resubmittals which are complete. Stability related reviews by the ABS may encompass the following tasks:

- a. Examination and digitizing of vessel lines including buoyant appendages.
- b. Approval of curves of form (hydrostatic curves) and cross curves, as applicable.
- c. Examination of tank capacity tables.
- d. Examination of preliminary stability calculations which may include weather, righting energy, floodable length, damage stability, subdivision, heeling moment, lifting, towing criteria, etc.
- e. Approval of preliminary stability data and information to be incorporated into a temporary stability letter which could be issued immediately after completion of the inclining experiment.
- f. Approval of procedures for inclining experiments and deadweight surveys.
- g. Witnessing of inclining experiments and deadweight surveys.
- h. Approval of stability test reports and lightship characteristics.
- i. Approval of final stability calculations based on approved lightship characteristics.
- j. Approval of Trim and Stability Booklets or other stability information for operating personnel.
- k. Authorization of freeboard assignment based on approval of stability calculations and information.
1. Drafting of all restrictions that must be included in vessels' Trim and Stability Booklets or issuing simplified stability letters.

2. STABILITY TEST PROCEDURES.

The stability test procedure required by 46 CFR 170.085 must be approved by the organization witnessing the test prior to the test. These test procedures must meet the requirements of 46 CFR 170.185. The guidance in NVIC 17-91 and ASTM F-1321 should be followed. In cases where the ABS is witnessing a stability test as part of a partial stability review, the MSC will determine, prior to the test, who will review related plans.

3. EXISTING VESSEL STABILITY RELATED REVIEW.

Stability related review for existing vessels undergoing modifications may be performed by the ABS; however, it is the responsibility of the vessel's owner or the owner's representative to ensure that the ABS has the background information necessary to carry out the review in its entirety. If sufficient background information is not available, either from the ABS, the owner, or Coast Guard files, the ABS will not undertake the stability review without first consulting with the MSC. If no published policy or regulations exist, before beginning the stability related review, the ABS must consult with the MSC to determine the specific stability standards to be applied. The MSC will determine whether it is necessary to develop new standards to apply and will coordinate with Commandant as needed

4. PARTIAL REVIEW.

Upon request of the owner or the owner's representative, the MSC may, on a case by case basis, authorize the ABS to perform a partial stability review. This will allow the ABS to perform certain portions of the stability review while leaving the remaining portions of the review to the MSC. The MSC will coordinate the application of partial stability reviews by the ABS to ensure that a complete review is accomplished in an expeditious manner. In particular, inclining tests and deadweight surveys may be witnessed, reviewed, and approved by the ABS while the stability analyses are reviewed and approved by the MSC using the results of the ABS's review. In certain instances, the MSC may authorize the ABS to conduct stability analyses while the Coast Guard retains responsibility for witnessing, reviewing, and approving the results of inclining tests and deadweight surveys. Issuance of stability letters by the ABS will be authorized at the discretion of the MSC, in such instances.