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CG-CVC Policy Letter 21-03  
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COMDT (CG-CVC)

To: Distribution

Subj: GUIDANCE CONCERNING THE USE OF DOUBLER PLATES FOR REPAIRS  
INVOLVING TOWING VESSELS SUBJECT TO 46 CFR SUBCHAPTER M

Ref: (a) Title 46, United States Code, § 3305  
(b) Navigation and Vessel Inspection Circular (NVIC) No. 7-68, Notes on Inspection and Repair of Steel Hulls (Oct. 28, 1968)  
(c) Inspection of Towing Vessels (81 FR 40004, June 20, 2016)  
(d) National Transportation Safety Board, Marine Accident Brief 19/03, *Flooding and Sinking of Towing Vessel Ms Nancy C*

1. PURPOSE. This policy letter provides guidance to Officers in Charge, Marine Inspection (OCMI), the Towing Vessel National Center of Expertise (TVNCOE), and 46 CFR Chapter I, Subchapter M Third Party Organizations (TPO), on the use of doubler plates for repairs involving towing vessels constructed of steel subject to inspection under 46 CFR Subchapter M.
2. ACTION. OCMI's, TVNCOE, and TPOs should refer to this Policy Letter when a towing vessel owner, managing operator, or other person with interest in the vessel seeks to use a doubler plate to make repairs to a towing vessel constructed of steel.
3. DIRECTIVES AFFECTED. None.
4. DISCUSSION.
  - a. For the purposes of this policy, a "doubler plate" or "doubler" means a steel plate, compatible with a vessel's existing steel plate, which is lap welded to a damaged part of that vessel's structure to regain its original local strength or to restore watertight integrity. The doubler plate should possess physical characteristics equal to or better than that of the original (i.e., parent) plate.
  - b. A doubler plate repair can lead to increased stress concentrated in the area of the repair. In such instances, rather than relieve the stress, the repair can exacerbate the original problem and create a situation of greater risk to the vessel (such as continued crack propagation). Additionally, a patchwork of doubler plates inhibit the ability to assess the true condition of the hull and may compromise the original strength of the steel.

- c. The Towing Safety Advisory Committee (TSAC) furnished a report to the Coast Guard on April 10, 2014, titled “Recommendations Regarding Steel Repair of Inspected Towing Vessels on Inland Service.” After careful consideration of that report and in consultation with other Coast Guard Headquarters Offices and field units, CG-CVC partially concurs with the recommendation for the continued use of doublers as a permanent repair on steel hulled towing vessels. The TSAC recommendation is inconsistent with existing policy involving steel repair for inspected vessels, as outlined in reference (b) and IACS Recommendation No. 47 Shipbuilding and Repair Standards. Both of these guidelines state doublers should be used only as temporary repairs with the exception of very limited applications. As discussed in reference (c), page 40075, the Coast Guard is aware of ASTM Standard F2991-13, Standard Guide for Doubler Plate Repairs for Non-Classed Ship Structures. However, the Coast Guard has not adopted the use of this ASTM Standard for permanent repairs for any class of inspected vessels, including vessels subject to inspection under 46 CFR Subchapter M. The Coast Guard maintains that permanent doublers are highly discouraged and there are very few instances where a doubler is an acceptable repair.<sup>1</sup>
  - d. The Coast Guard recognizes that the use doublers in the towing vessel industry has been a common practice. However, as the NTSB identified in reference (d), poorly installed or fitted doubler plates may lead to the loss of watertight integrity of a vessel and subsequent sinking. As towing vessels are in drydock, the Coast Guard will evaluate the adequacy of existing doublers to assess if further policy is needed to address the removal of existing doublers.
5. POLICY. OCMI, TVNCOE, and TPOs should use the following guidance, in addition to reference (b), when repairs involving doubler plates are used on steel hull towing vessels.
- a. New doubler plates should not be permitted for permanent repairs except for allowances in reference (b). Examples where doublers may be approved as permanent repairs include: wastage doublers used in non-strength areas to restore watertight integrity; local reinforcement at overboard discharges or seachests; keel cooler doublers that do not extend beyond the keel cooler; wear plates above propellers; and on sound plating in areas highly susceptible to corrosion as a means for protection.
  - b. New doubler plate installations.
    - i. New Doubler Plates as Temporary Repairs. After evaluation by the OCMI or an appropriately qualified TPO surveyor, doubler plates may be authorized for temporary repairs in limited circumstances. This evaluation may be limited to the effectiveness of the doubler at restoring watertight integrity and a visual inspection, if possible, to assess the doubler fit up and condition. Doubler plates used for temporary repairs should be removed as soon as possible, but no later than at the next drydock, unless the OCMI or TPO requires permanent repairs to be completed earlier.
    - ii. New Doubler Plates as Permanent Repairs. An MI or an appropriately qualified TPO surveyor should visually inspect all new doubler plate repairs for workmanship and verify

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<sup>1</sup> Doublers may be acceptable in non-strength areas. For additional information on non-strength areas, see NVIC 7-68.

the doubler plate is free of sharp edges, burrs, carburized flame cut material, and weld spatter. If an onsite inspection of the doubler plate repair is not possible, then the MI or appropriately qualified TPO surveyor may accept documentation suitable to ascertain workmanship and finish such as photographs, non-destructive testing reports or other objective evidence suitable to the Coast Guard. The doubler plate should be sand or shot blasted to remove rust and scale prior to this inspection. After obtaining MI or TPO approval, the doubler plate repair must be given a complete coat of primer and topcoat based on the environment and compatibility with coatings on the existing structure. For a new doubler plate repair to be deemed permanent, at a minimum, a certified non-destructive testing Level II inspector should inspect the welds involved in the installation of the doubler plate and provide a report to the TPO or the cognizant OCMI.

- c. Existing Doubler Plate Repairs: At this time, existing doublers<sup>2</sup> may remain on steel hulled towing vessels. However, OCMI's and TPOs may require existing doublers to be removed if the fit up and installation is not acceptable or creates an unsafe condition. CG-CVC will coordinate with the Traveling Marine Inspectors and specific units to collect data on the adequacy of existing double plates for potential future policy development.
6. APPEALS. An owner or managing operator submitting an appeal regarding an issued deficiency should follow the procedures within 46 CFR § 136.180.
  7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.
    - a. The development of this guidance and the general policies contained within it have been thoroughly reviewed under Department of Homeland Security Directive 023-01, Rev.1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4370f) by the originating office, which has determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment.
    - b. This policy letter is categorically excluded under paragraph A3 of Appendix A, of Table 1 of DHS Directive Instruction Manual 023-01, Rev. 1. Paragraph A3 pertains to the promulgation of rules, issuance of rulings or interpretations, and the development of and publication of policies, orders, directives, notices, procedures, manuals, advisory circulars, and other guidance documents of the following nature: (a) Those of a strictly administrative or procedural nature; (b) those that implement, without substantive change statutory or regulatory requirements; (c) those that implement, without substantive change, procedures, manuals and other guidance documents; (d) those that interpret or amend an existing regulation without changing its environmental effect; (e) technical guidance safety or security matters; or (f) guidance for the preparation of security plans. This policy letter provides guidance to the TVNCOE, OCMI, 46 CFR Subchapter M TPOs on the use of doubler plates for repairs involving towing vessels constructed of steel subject to inspection under Title 46 CFR Chapter I, Subchapter M.

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<sup>2</sup> "Existing doublers" is defined, for the purposes of this policy letter, as doublers installed as of the publication of this policy letter.

- c. This guidance will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this guidance must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.
8. DISCLAIMER. This policy letter guidance is not a substitute for applicable legal requirements. It is not intended nor does it impose legally binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general public, and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements. An alternative approach may be used for complying with these requirements if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach (you are not required to do so), you may contact the Coast Guard Office of Commercial Vessel Compliance (CG-CVC) who is responsible for implementing this guidance.
9. QUESTIONS. Questions concerning this policy letter and guidance should be directed to Office of Commercial Vessel Compliance, COMDT (CG-CVC), Domestic Compliance Division at [CG-CVC@uscg.mil](mailto:CG-CVC@uscg.mil). This policy letter and other Domestic Vessel Policy documents are posted on the CG-CVC website at [http://www.uscg.mil/hq/cgcvc/cvc/policy/policy\\_letters.asp](http://www.uscg.mil/hq/cgcvc/cvc/policy/policy_letters.asp). This document, along with other Coast Guard guidance, is also available by accessing <http://www.uscg.mil/guidance>.

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