GUIDE FOR

'SAFEHULL-DYNAMIC LOADING APPROACH' FOR VESSELS
DECEMBER 2006

NOTICE NO. 2 – October 2015

The following Rule Changes were approved by the ABS Rules Committee on 18 September 2015 and become **EFFECTIVE AS OF 1 OCTOBER 2015.**

(See http://www.eagle.org for the consolidated version of the Guide for 'SafeHull-Dynamic Loading Approach' for Vessels, 2006, with all Notices and Corrigenda incorporated.)

Notes - *The date in the parentheses means the date that the Rule becomes effective for new construction based on the contract date for construction. (See 1-1-4/3.3 of the ABS Rules for Conditions of Classification (Part 1).)*

APPENDIX 2 BUCKLING AND ULTIMATE STRENGTH CRITERIA

9 Deep Girders and Webs

9.1 Buckling Criteria

(Revise Subparagraph A2/9.1.1, as follows.)

9.1.1 Web Plate *(1 October 2015)*

$$(f_L/f_{cL})^2 + (f_b/f_{cb})^2 + (f_{LT}/f_{cLT})^2 \le S_m$$

where

f_L = calculated uniform compressive stress along the length of the girder, in N/cm^2 (kgf/cm^2, lbf/in^2).

f_b = calculated ideal bending stress, in N/cm^2 (kgf/cm^2, lbf/in^2).

f_{LT} = calculated total shear stress, including hull girder and local loads where applicable, in N/cm^2 (kgf/cm^2, lbf/in^2).

f_L, f_b and f_{LT} are to be calculated for the panel in question under each load case. f_L, f_b and f_{LT} may be calculated by the relative displacement of four corner nodes of the panel. Care is to be taken where one corner of the panel is located in a high stress concentration area; because stresses calculated by the displacement method tend to be conservative. f_L, f_b and f_{LT} may also be directly calculated from the component stresses of the elements in the panel, provided sufficient number of elements exists to represent stress distributions in the panel. f_{cL}, f_{cb} and f_{cLT} are critical buckling stresses with respect to uniform compression, ideal bending and shear, respectively, and may be determined in accordance with 5C-5-A2 of the *Steel Vessel Rules*.

S_m is as defined in A2/3.5.

In the determination of f_{cL} and f_{cLT}, the effects of openings are to be appropriately considered.