

Comment/question, 31st July 2008

Re: 6/2 3.4.1 & 3.4.2 explained in KC217 answer to the question of whether a direct FE analysis maybe accepted in lieu of the formulation given for checking the hold frames. IACS answer is “In addition to accept the alternative analysis such as direct calculation are permitted is a general question for the totality of CSR (Oil Bulk). *This should be discussed as a general matter.*”

We wish to remind IACS, that UR S31 has already been applied to over 5000 bulk carriers and paragraph UR S31.1 states the following:

“ Finite element or other numerical analysis or direct calculation procedures cannot be used as an alternative to compliance with the requirements in this UR,.....”

In addition we wish to raise the *alarminglly worrying statement of IACS* in the paragraph 1.2 of Chapter 7 (regarding Direct Analysis) of the Technical Background Notes to this Rule Change* where it is quoted that the change to the boundary conditions for the FE direct analysis proposed therein is to be considered as an *“...interim solution...”* .

Obviously IACS cannot discuss the use of direct analysis as an alternative to the parametric formulation for the strength check of the hold frames while IACS UR S31.1 requirement has already been applied to over 5000 existing bulk carriers, which prohibits sizing up the hold frames by direct analysis.

Please kindly inform us the assurances and confidence levels that IACS has on the temporary boundary condition to FE direct analysis that can possibly use the results as an alternative to the parametric strength formulation of the following structural members:

- 1) *Hold Frames*
- 2) *MAIN SUPPORTING MEMBERS (i.e. the webs of the top side tank and lower hopper and double bottom girders and floors etc) that IACS resisted in the past to provide parametric equations in addition to the direct analysis similar to those existed in ABS SafeHull and other IACS Class Societies Rules and CSR for Oil Tankers.*

YOUR URGENT RESPONSE WILL BE MUCH APPRECIATED.

* refers to CSR/BC RCP4-4