

The corrosion allowance for pressure vessels

Related Rules/Guidance	Effective date
Pt 5, Ch 5, 309. Table 5.5.15	– ships contracted for construction on or after 1 July 2021

○ Reason for Amendments

1. The corrosion allowance of the pressure vessel was fixed at 1mm regardless of the material or medium, which was unreasonable.
2. The corrosion allowance in Pt 5 Ch 6, and ship safety act and pressure vessels rules of other classification society, are not fixed at “1mm”, but can be increased or decreased according to the material or the medium used.

○ Amendments

1. The corrosion allowance is change from fixed value ‘1mm’ to ‘c’.
2. “The corrosion allowance is to be 1/6 of the required thickness or 1mm, whichever is less. However, pressure vessels containing corrosive liquids or gases may increase the corrosion allowance, and pressure vessels containing non-corrosive liquids or gases or pressure vessels using corrosion resistant materials may reduce the corrosion allowance.” has been added in Note (3) of Table 5.5.15.

○ Impact Analysis

- ✓ Indication of any impact on and/or contribution to safety, security or environmental protection
: N/A
- ✓ Indication of any impact on net and gross scantlings
: As the corrosion allowance changes, the thickness of the shell plate and end plate of the pressure vessel may decrease or increase.