

12 October 2020

## A note on AER calculations

### ITEM 1.

Vessels reporting with GT as the denominator in the AER calculation (i.e. Ferry-pax only, Cruise, and Ferry RoPax) are sensitive to the time in operation as GT does not measure the transport work done. For example, a ship which enters into service only in the second half of a year can only be verified for 50% of the reporting period. If only the verified CO<sub>2</sub> emissions are entered into the formula:

$$AER = CO_2 / GT$$

then the AER is smaller, in the example by probably 50%, than it would be if the vessel had been in service since the beginning of the year.

We suggest that the CO<sub>2</sub> emissions are extrapolated to one year for such cases where the emissions are only available for a share of a year and the vessel type reports its AER in GT units. In this example where CO<sub>2</sub> emissions are only available for 50% of the year, CO<sub>2</sub> emissions would be multiplied by 2 or solved using the following equation:

$$CO_{2ex} = CO_{2a} / \alpha$$

where **CO<sub>2ex</sub>** is the extrapolated CO<sub>2</sub> emissions for the calendar year, **CO<sub>2a</sub>** is the actual emissions available for  $\alpha$  fraction of the year. CO<sub>2ex</sub> would be the CO<sub>2</sub> emissions used in the Poseidon Principles AER equation.

### ITEM 2.

Please note that for AER calculations, in line with the requirements of the IMO DCS, DWT at maximum summer draught, rather than design deadweight as previously indicated in the technical guidance, should be used.