$$GHG_i = \sum_{j=1}^{n}\left[\sum_{m=1}^{z}\left(F_{G,j} \times t_j\right)_m \times \left(1 - FG_j\right)\right] \times MF_i \times \left[\frac{T_{SC} \times P_{cc}}{T_{cc} \times P_{SC}}\right]_j \times \rho_i \times 0.001$$

Where:

GHG_i = Annual emissions of greenhouse gas *i* attributable to atmospheric centrifugal compressor vents, in metric tons;
n = Total number of centrifugal compressors;
j = Centrifugal compressor;
m = Operating mode of centrifugal compressor *j*;
z = Number of operating modes of centrifugal compressor *j*;
$F_{G,j}$ = Gas flow from the atmospheric vent of centrifugal compressor *j*, in operating mode *m*, determined in accordance with QC.29.4.5, in cubic metres per hour;
t_j = Annual operating time of centrifugal compressor *j* equipped with a wet seal or dry seal oil degassing tank, in operating mode *m*, in hours;
FG_j = Portion of gas from the atmospheric vent of centrifugal compressor *j* that is recovered using a vapour recovery system or destined for another use, determined in accordance with QC.29.4.5, expressed as a percentage;
MF_i = Molar fraction of greenhouse gas *i* in the gas from atmospheric vents, determined in accordance with paragraph 3 of QC.29.4;
T_{SC} = Temperature at standard conditions of 293.15 kelvin;
T_{cc} = Temperature at the atmospheric vent of centrifugal compressor, in kelvin;
P_{cc} = Pressure at the atmospheric vent of centrifugal compressor, in kilopascals;
P_{SC} = Pressure at standard conditions of 101.325 kPa;
ρ_i = Density of greenhouse gas *i* that is 1.893 kg per cubic metre for CO_2 and 0.690 kg per cubic metre for CH_4 at standard conditions;
0.001 = Conversion factor, kilograms to metric tons;
i = CO_2 or CH_4;