$$CH_4 = N \times H \times \frac{(P_{CV} + 101.325)}{101.325} \times f_{void} \times \frac{\Pi \times D^2}{4} \times \frac{16}{MVC} \times MF_{CH4} \times 0.001$$

Where:

CH_4 = Annual CH_4 emissions attributable to delayed coking processes, in metric tons;

N = Annual number of vessel openings for all vessels of the same dimensions in the coking unit;

H = Height of coking vessel, in metres;

P_{cv} = Gauge pressure of the coking vessel when opened to the atmosphere prior to coke cutting or, if the method in paragraph 2 is used, gauge pressure of the coking vessel when depressurization gases are first routed to the atmosphere, in kilopascals;

101.325 = Atmospheric pressure, in kilopascals;

f_{void} = Volumetric void fraction of coking vessel prior to the injection of water or steam, in cubic metres of gas at standard conditions per cubic metre of vessel;

Π = Pi, i.e. 3.1416;

D^2 = Diameter of coking vessel, in square metres;

16 = Molecular weight of CH_4, in kilograms per kilomole;

MVC = Molar volume conversion factor (24.06 m^3 per kilomole at standard conditions);

MF_{CH4} = Average mole fraction of CH_4 in coking vessel gas based on the analysis of at least 2 samples per year, collected at least 4 months apart, in kilomoles of CH_4 per kilomole of gas, wet basis;

0.001 = Conversion factor, kilograms to metric tons;