Figure: 30 TAC §115.179(c)(1)

Equation 1.

$$E_i = K2 * Ci * Mp * Qi$$

$$E_o = \text{K2} * Co * Mp * Qo$$

Where:

E_i = Mass rate of volatile organic compound (VOC) at the inlet of the control device, on a dry basis, kilograms per hour.

E_o = Mass rate of VOC at the outlet of the control device, on a dry basis, kilograms per hour.

K2 = Constant, 2.494×10^{-6} parts per million (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature is 20°Celsius.

Ci = Concentration of VOC, as propane, of the gas stream as measured by the United States Environmental Protection Agency (EPA) Method 25A in 40 Code of Federal Regulations (CFR) Part 60, Appendix A-7, at the inlet of the control device, on a dry basis, parts per million by volume (ppmv).

Co = Concentration of VOC, as propane, of the gas stream as measured by EPA Method 25A in 40 CFR Part 60, Appendix A-7 at the outlet of the control device, on a dry basis, ppmv.

Mp = Molecular weight of propane, 44.1 gram/gram-mole.

Qi = Flowrate of gas stream at the inlet of the control device, dry standard cubic meter per minute.

Qo = Flowrate of gas stream at the outlet of the control device, dry standard cubic meter per minute.

Equation 2.

$$R_{cd} = \frac{(E_i - E_o)}{E_i} * 100\%$$

Where:

R_{cd} = Control efficiency of control device, percent.

E_i = Mass rate of VOC at the inlet to the control device as calculated in kilograms per hour from the equation for E_i in this table.

E_o = Mass rate of VOC at the outlet of the control device, as calculated in kilograms per hour from the equation for E_o in this table.