Figure: 30 TAC §217.155(b)(2)(C)

Equation F.4.

$$RAF = \frac{(PPD\ BOD_5) \times (O_2/lb\ BOD_5)}{WOTE \times 0.23 \times 0.075 \times 1440}$$

Where:

RAF = Required Airflow Rate (standard cubic feet per minute (SCFM))

PPD BOD$_5$ = Influent Organic Load in Pounds per Day of five-day biochemical oxygen demand

0.23 = lb O_2/lb air @ 20° C

1440 = minutes/day

0.075 = lb air/cubic foot (cf)

WOTE = Wastewater Oxygen Transfer Efficiency (decimal)

If the design inlet temperature is above 24° C, the specific weight of air must be adjusted to the specific weight at the intake temperature.