Figure: 30 TAC §217.164(c)(5)

Equation F.6.

$$V_a = \frac{1,000,000(BODL)(Y)(SRT)}{62.4MLSS}$$

Where:

V_a = Volume of aeration basin, cubic feet

BODL = Design biochemical oxygen demand (BOD) load per day, pounds

Y = yield of solids per unit BOD removed

SRT = required solids retention time, days

MLSS = mixed liquor suspended solids, milligrams per liter

Equation F.7.

$$V_a = \frac{1,000\,(BODL)}{max\ allowable\ lb\ BOD/kcf}$$

Where:

V_a = Volume of aeration basin, cubic feet

BODL = Design BOD load per day, pounds

max allowable lb BOD/kcf = Maximum pounds BOD load/1,000 cubic feet