**Section 355.209 Calculation of Preliminary Effluent Limitation**

a) The preliminary effluent limitation (PEL) is calculated in a mass balance approach reflecting allowed dilution as referenced in Section 355.207:

WQS = [(Qe)(PEL) + (Qd)(Cd)]/(Qe + Qd)

or

PEL = [WQS(Qe + Qd) - (Qd)(Cd)]/Qe

where:

|  |  |  |
| --- | --- | --- |
| WQS  | = | applicable total ammonia nitrogen water quality standard pursuant to Section 355.203  |
| Qe  | = | effluent flow rate  |
| Qd  | = | allowed mixing flow rate as determined in accordance with the provisions of 35 Ill. Adm. Code 302.212(c) |
| Cd  | = | background ammonia nitrogen (as N) concentration in mixing water  |

Effluent flow rate shall be selected to coincide with the critical stream flow condition used to quantify allowed dilution. Typically this will be estimated to be the average of the lowest three months average flow rate during the previous year for domestic wastewater sources. For industrial and other wastewater sources where flow rates are not directly correlated to climatic patterns, Qe will be estimated as the average of the highest three monthly average flow rates. With either approach, Qe shall be modified when future flows are expected to vary significantly from historical data.

b) The reasonable potential analysis shall be completed separately for the winter and summer periods and for acute, chronic and subchronic water quality standards. The Agency may subdivide summer or winter periods into quarterly or monthly segments with analysis of reasonable potential corresponding to those smaller time segments in individual permit applications. WQBELs based on the acute water quality standard shall be expressed as a daily maximum. WQBELs based on the chronic water quality standard shall be expressed as a monthly average. WQBELs based on the subchronic WQS shall be expressed as a weekly average.

(Source: Amended at 27 Ill. Reg. 15774, effective September 25, 2003)