**Section 302.553 Determining the Lake Michigan Aquatic Toxicity Criteria or Values − General Procedures**

The Lake Michigan Aquatic Life Criteria and Values are those concentrations or levels of a substance at which aquatic life is protected from adverse effects resulting from short- or long-term exposure in water.

a) Tier I criteria and Tier II values to protect against acute effects in aquatic organisms will be calculated according to procedures listed at Sections 302.555, 302.560, and 302.563. The procedures of Section 302.560 must be used as necessary to allow for interactions with other water quality characteristics such as hardness, pH, or temperature. Tier I criteria and Tier II values to protect against chronic effects in aquatic organisms must be calculated according to the procedures listed at Section 302.565.

b) Minimum Data Requirements. To derive a Tier I acute or chronic criterion, data must be available for at least one species of freshwater animal in at least eight different families such that the following taxa are included:

1) The family Salmonidae in the class Osteichthyes;

2) One other family in the class Osteichthyes;

3) A third family in the phylum Chordata;

4) A planktonic crustacean;

5) A benthic crustacean;

6) An insect;

7) A family in a phylum other than Arthropoda or Chordata; and

8) A family from any order of insect or any phylum not already represented.

c) Data for tests with plants, if available, must be included in the data set.

d) If data for acute effects are not available for all the eight families listed above, but are available for the family Daphnidae, a Tier II value must be derived according to procedures in Section 302.563. If data for chronic effects are not available for all the eight families, but there are acute and chronic data available according to Section 302.565(b) so that three acute to chronic ratios (ACRs) can be calculated, then a Tier I chronic criterion can be derived according to procedures in Section 302.565. If three ACRs are not available, then a Tier II chronic value can be derived according to procedures in Section 302.565(b).

e) Data must be obtained from species that have reproducing wild populations in North America except that data from saltwater species can be used in the derivation of an ACR.

(Source: Amended at 47 Ill. Reg. 4437, effective March 23, 2023)