**Section 742.705 Parameters for Soil Remediation Objective Equations**

a) Appendix C, Tables B, D, and M list the input parameters for the SSL, RBCA, and J&E equations, respectively. The first column lists each symbol as it is presented in the equation. The next column defines the parameters. The third column shows the units for the parameters. The fourth column identifies where information on the parameters can be obtained (i.e., field measurement, applicable equations, reference source, or default value). The last column identifies how the parameters can be generated.

b) Default Values

Default values are numerical values specified for use in the Tier 2 equations. The fourth column of Appendix C, Tables B, D, and M denotes if the default values are from the SSL model, RBCA model, modified J&E model or some other source. The last column of Appendix C, Tables B, D, and M lists the numerical values for the default values used in the SSL, RBCA, and J&E equations, respectively.

c) Site-specific Information

Site-specific information is a parameter measured, obtained, or determined from the site to calculate Tier 2 remediation objectives. The fourth column of Appendix C, Tables B, D, and M identifies those site-specific parameters that may require direct field measurement. For some parameters, numerical default inputs have been provided in the last column of Appendix C, Tables B, D, and M to substitute for site-specific information. In some cases, information on the receptor or soil type is required to select the applicable numerical default inputs. Site-specific information includes:

1) Physical soil parameters identified in Appendix C, Table F. The second column identifies the location where the sample is to be collected. Acceptable methods for measuring or calculating these soil parameters are identified in the last column of Appendix C, Table F;

2) Institutional controls or engineered barriers, pursuant to Subparts J and K, describe applicable institutional controls and engineered barriers under a Tier 2 evaluation; and

3) Land use classification

d) Toxicological-specific Information

1) Toxicological-specific information is used to calculate Tier 2 remediation objectives for the following parameters, if applicable:

A) Oral Chronic Reference Dose (RfDo, expressed in mg/kg-d);

B) Oral Subchronic Reference Dose (RfDs, expressed in mg/kg-d, shall be used for construction worker remediation objective calculations);

C) Oral Slope Factor (SFo, expressed in (mg/kg-d)-1);

D) Inhalation Unit Risk Factor (URF expressed in (μg/m3)-1);

E) Inhalation Chronic Reference Concentration (RfC, expressed in mg/m3);

F) Inhalation Subchronic Reference Concentration (RfCs, expressed in mg/m3, shall be used for construction worker remediation objective calculations);

G) Inhalation Chronic Reference Dose (RfDi, expressed in mg/kg-d);

H) Inhalation Subchronic Reference Dose (RfDis, expressed in mg/kg-d, shall be used for construction worker remediation objective calculations); and

I) Inhalation Slope Factor (SFi, expressed in (mg/kg-d)-1);

2) Toxicological information can be obtained by following the guidelines in OSWER Directive 9285.7-53, as incorporated by reference in Section 742.210, or the program under which the remediation is being performed.

e) Chemical-specific Information

Chemical-specific information used to calculate Tier 2 remediation objectives is listed in Appendix C, Table E.

f) Calculations

Calculating numerical values for some parameters requires the use of equations listed in Appendix C, Tables A, C, and L. The parameters that are calculated are listed in Appendix C, Tables B, D, and M.

(Source: Amended at 37 Ill. Reg. 7506, effective May 15, 2013)