**Section 742.812 J&E Groundwater Equations for the Indoor Inhalation Exposure Route**

Groundwater remediation objectives for the indoor inhalation exposure route are calculated using the modified J&E model as described in Section 742.717, except as follows:

a) In Equation J&E9a, the total number of layers of soil that contaminants migrate through from the source to the building shall include a capillary fringe layer.

b) The thickness of the capillary fringe layer is 37.5 cm.

c) The volumetric water content of the capillary fringe shall be 90% of the total porosity of the soil that comprises the capillary fringe.

d) Equations J&E7 and J&E8 calculate an acceptable groundwater remediation objective.

1) This calculation is made using:

A) the soil gas remediation objective calculated in accordance with Equation J&E4; and

B) the assumption that this gas is in equilibrium with any contamination in the groundwater.

2) Equation J&E7 must be used when the mode of contaminant transport is both diffusion and advection. In this scenario, the Qsoil value equals 83.33 cm3/sec as described in Section 742.505.

3) Equation J&E8 may be used only when the mode of contaminant transport is diffusion only. In this scenario, the Qsoil value equals 0.0 cm3/sec as described in Section 742.505. As an alternative to using Equation J&E8 pursuant to this subsection, it is permissible to use Equation J&E7, in which case the Qsoil value equals 83.33 cm3/sec as described in Section 742.505.

e) A groundwater remediation objective that exceeds the water solubility of that chemical (refer to Appendix C, Table E for solubility values) is not allowed. If the calculated groundwater remediation objective is greater than the water solubility of that chemical, then the solubility is used as the groundwater remediation objective.

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