**Section 259.230 Nitrate and Ammonium**

a) If the nitrate or ammonium concentrations in soil are equal to or greater than the default soil cleanup objectives in Appendix C of this Part, the soil is considered a moderate risk to cause an exceedence of a groundwater quality standard or a health advisory level, and a corrective action plan to remediate the past contamination may be submitted to the Department and the Board for review. The soil may be suitable for the land application treatment program under 8 Ill. Adm. Code 258.

b) If the nitrate or ammonium concentrations in soil are less than the default SCOs in Appendix C of this Part, the nitrate or ammonium concentrations are considered below regulatory concern and the facility may apply for a notice of closure in accordance with Subpart E of this Part.

c) If the nitrate or ammonium concentrations are equal to or greater than the default SCOs in Appendix C of this Part, the applicant may undertake a detailed site assessment as described in Section 259.340 of this Part to develop the information necessary to propose site-specific SCOs, using the equations in Section 259.350(b) and (c) of this Part. All site-specific cleanup objectives are subject to Board approval.

d) Nitrate or ammonium concentrations in soils proposed to remain in place at the conclusion of corrective actions shall not exceed the default SCOs in Appendix C of this Part, unless appropriate engineering barriers, in conjunction with necessary institutional controls, are approved as part of a corrective action plan.

e) The default SCOs for nitrate as N in Appendix C of this Part shall apply to unsaturated soil and soil/gravel mixtures of the site regardless of depth from land surface.

f) The default SCOs for ammonium in Appendix C of this Part shall apply to the upper 12 inches of the soil and any soil/gravel mixture within 12 inches of land surface.

g) If ammonium is present at concentrations greater than 100 mg/kg in unsaturated soil at depths greater than 12 inches below land surface, the applicant shall measure the cation exchange capacities (CEC) of at least 2 soil samples representative of the interval between 12 inches and the maximum depth at which ammonium is present in each boring within the area of contaminated soil. The measured CEC shall be used in the equation in Section 259.350(c) of this Part to calculate the soil cleanup objective for contaminated soil below a depth of 12 inches.

h) Appendix F of this Part includes a list of Illinois soils and approximate CECs that shall be used with the table of default SCOs in Appendix C to calculate the SCO for a specific site.

(Source: Added at 32 Ill. Reg. 1308, effective January 21, 2008)