**Section 258.90 Sampling and Analysis**

a) Contaminated soil or groundwater must be sampled in accordance with the requirements of this Part and analyzed for the presence and concentration of the target agrichemicals included on the list of compounds required in 8 Ill. Adm. Code 255.50(a). Soil samples may be composited. At least one composite soil sample is required per one-eighth acre of the spill site, using six subsamples per composite.

b) Soil samples from the land application area, excluding field access lanes, must be collected to the depth of incorporation or three inches, whichever is less. Soil samples from field access lanes must be collected to a depth of six inches.

c) Soil samples collected from the land application area must be analyzed for the agrichemicals that were the basis for determining the application rate of the contaminated soil or groundwater pursuant to Section 258.70(e).

d) Sampling of the land application area must be conducted in accordance with Appendix D of this Part, except field access lanes that must be sampled at the rate of at least one composite soil sample per 500 lineal feet.

e) All field and laboratory activities must satisfy the following to ensure that all data are scientifically valid and of known precision and accuracy:

1) All field sampling activities relative to sample collection, documentation, preparation, labeling, storage, shipment and security, quality assurance and quality control, acceptance criteria, corrective action, and decontamination procedures must be conducted in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), incorporated by reference at Section 258.40 of this Part.

2) All field measurement activities relative to equipment and instrument operation, calibration and maintenance, corrective action, and data handling must be conducted in accordance with SW-846, or with an equipment or instrument manufacturer's or vendor's published standard operating procedures.

3) All laboratory quantitative analyses of soil samples to determine concentrations of pesticides must be conducted fully in accordance with SW-846, relative to all facilities, equipment and instrumentation, operating procedures, sample management, test methods, equipment calibration and maintenance, quality assurance and quality control, corrective action, data reduction and validation, reporting, and records management. The practical quantitation limit (PQL) of the test methods selected must be less than or equal to the RSDLs contained in Appendix A of this Part.

4) All laboratory quantitative analyses of soil samples to determine concentrations of pesticides or nutrients must be conducted on the less than 2-mm fraction.

5) All laboratory quantitative analyses of soil samples to determine concentrations of pesticides that require more sensitive detection limits or cannot be analyzed by standard methods identified in SW-846 must be conducted in accordance with analytical protocols developed in consultation with and approved by the Department.

6) All groundwater monitoring and analytical procedures must be conducted in accordance with 35 Ill. Adm. Code 620.505 and 620.510.

7) All quantitative analyses of soil and groundwater samples that utilize any of the approved test methods identified in 35 Ill. Adm. Code 186.180 shall be completed by an accredited laboratory in accordance with the requirements of 35 Ill. Adm. Code 186. Quantitative analyses not utilizing an accredited laboratory in accordance with Part 186 shall be deemed invalid.

(Source: Amended at 26 Ill. Reg. 17155, effective November 18, 2002)