**Section 740.415 Site Investigation – General**

A site investigation shall be performed under this Part to identify, as indicated within the RA's application for review and evaluation services, all or specified recognized environmental conditions existing at the remediation site, the related contaminants of concern, and associated factors that will aid in the identification of risks to human health, safety and the environment, the determination of remediation objectives, and the design and implementation of a Remedial Action Plan.

a) If the RA has elected under the application for review and evaluation services to obtain a No Further Remediation Letter covering all recognized environmental conditions and related contaminants of concern for the remediation site, then the procedures provided under Sections 740.420 and 740.425 of this Part shall be followed.

b) If the RA has elected under the application for review and evaluation services to obtain a No Further Remediation Letter covering a limited number of recognized environmental conditions and related contaminants of concern as specified by the RA, then the procedures at Sections 740.430 and 740.435 of this Part shall be followed.

c) The RA may revise an election at any time by initiating a modification of the Review and Evaluation Services Agreement under Section 740.220 of this Part and performing the appropriate site investigation, if necessary.

d) Site investigations shall satisfy the following data quality objectives for field and laboratory operations to ensure that all data is 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 shall be conducted in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), Vol. One, Ch. One (Quality Control) and Vol. Two (Field Manual), incorporated by reference at Section 740.125 of this Part. If approved by the Agency, such activities also may be conducted in accordance with ASTM standards, methods identified in "A Compendium of Superfund Field Operations Methods" (EPA/540/0-87-001, OSWER Directive 9355.0-14, December 1987), "Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volume I: Solids and Ground Water, Appendices A and B" (EPA/625/R-93/003a, May 1993), "Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volume II: The Vadose Zone, Field Screening and Analytical Methods, Appendices C and D" (EPA/625/R-93/003b, May 1993), incorporated by reference at Section 740.125 of this Part, or other procedures.

2) All field measurement activities relative to equipment and instrument operation, calibration and maintenance, corrective action, and data handling shall be conducted in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), Vol. One, Ch. One (Quality Control), incorporated by reference at Section 740.125 of this Part, or with an equipment or instrument manufacturer's or vendor's published standard operating procedures.

3) All laboratory quantitative analysis of samples to determine concentrations of regulated substances or pesticides shall be conducted fully in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), incorporated by reference at Section 740.125 of this Part, 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 most protective Tier 1 soil remediation objectives in 35 Ill. Adm. Code 742.Appendix B, applicable groundwater remediation objectives under 35 Ill. Adm Code 742.Appendix B, or, if already determined, the remediation objective concentrations for the site. If a contaminant of concern is not identified in Part 742 or the remediation objectives for the site have not been determined, the PQL shall equal the lowest concentration that reliably can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions but shall not be greater than ten times the method detection limit.

4) All field or laboratory measurements of samples to determine physical or geophysical characteristics shall be conducted in accordance with ASTM standards or other procedures as approved by the Agency.

5) All laboratory quantitative analyses of samples to determine concentrations of any regulated substances or pesticides that require more exacting detection limits or cannot be analyzed by standard methods identified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), incorporated by reference at Section 740.125 of this Part, shall be conducted in accordance with analytical protocols developed in consultation with and approved by the Agency.

6) Effective January 1, 2003, all quantitative analyses of samples collected on or after that date and utilizing 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. 7197, effective April 25, 2002)