**Section 740.425 Site Investigation Report – Comprehensive Site Investigation**

a) Site investigation results for both phase I and phase II of the comprehensive site investigation shall be combined into one Site Investigation Report.

b) A Site Investigation Report for a comprehensive site investigation shall include, but not be limited to, the following chapters:

1) Executive summary. This chapter shall identify the objectives of the site investigation and the technical approach utilized to meet such objectives. It shall state whether recognized environmental conditions were identified and the data limitations in the assessment;

2) Site characterization. This chapter shall include the compilation of all sources reviewed and information obtained as a result of the site investigation under Section 740.420 of this Part, including but not limited to:

A) Sources consulted or reviewed. This subchapter shall contain a list of reference documents used in completing the site investigation;

B) Site history. This subchapter shall present a chronological summary of the historic uses of the remediation site as prescribed by "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM E 1527-00), incorporated by reference at Section 740.125 of this Part;

C) Site description. This subchapter shall describe the regional location, pertinent boundary features, general facility physiography, geology, hydrogeology, existing and potential migration pathways and exposure routes, and current and post-remediation uses of the remediation site and surrounding areas that are immediately adjacent to the remediation site;

D) Site base map(s) meeting the requirements of Section 740.210(a)(7) and including the following:

i) The sources or potential sources of the contaminants of concern, spill areas, and other suspected areas for any or all contaminants of concern;

ii) On-site and off-site injection and withdrawal wells; and

iii) All buildings, tanks, piles, utilities, paved areas, easements, rights-of-way and other features, including all known past and current product and waste underground tanks or piping; and

E) A legal description or reference to a plat showing the boundaries of the remediation site, or, for a Federal Landholding Entity, a common address, notations in any available facility master land use plan, site specific GIS or GPS coordinates, plat maps, or any other means that identifies the site in question with particularity;

3) Site-specific sampling plan. This chapter shall indicate those applicable physical and chemical methods utilized for contaminant source investigations, soil and sediment investigations, hydrogeological investigations, surface water investigations, and potential receptor investigations;

4) Documentation of field activities. This chapter shall include the results of the field activities to determine physical characteristics. At a minimum, this chapter shall include the following elements:

A) Narrative description of the field activities conducted during the investigation;

B) The quality assurance project plan utilized to document all monitoring procedures (e.g., sampling, field measurements and sample analyses) performed during the investigation, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented; and

C) Presentation of the data in an appropriate format (e.g., tabular and graphical displays) such that all information is organized and presented logically and that relationships between the different investigations for each medium are apparent;

5) Endangerment assessment. This chapter shall analyze the results of the field activities and characterize the extent of contamination (qualitative and quantitative) for contaminants of concern and compare the remediation site information with the applicable provisions of 35 Ill. Adm. Code 742. This chapter shall:

A) Describe any recognized environmental conditions, evaluate exposure routes, including threatened releases, and evaluate exposure routes excluded under 35 Ill. Adm. Code 742;

B) Describe all conditions the LPE has determined to be de minimis along with the rationale for each such de minimis determination;

C) Describe the nature, concentration and extent of contaminants of concern within all environmental media at the remediation site and assess the observed and potential contaminant fate and transport;

D) Describe the significant physical features of the remediation site and vicinity that may affect contaminant transport and risk to human health, safety and the environment; and

E) Compare the concentrations of the contaminants of concern with the corresponding Tier 1 remediation objectives under 35 Ill. Adm. Code 742;

6) Conclusion. This chapter shall assess the sufficiency of the data in the report and recommend future steps;

7) Appendices. References and data sources, including but not limited to field logs, well logs, and reports of laboratory analyses, shall be incorporated into the appendices with reports containing laboratory analyses of samples collected on or after January 1, 2003, including the following:

A) Accreditation status of the laboratory performing the quantitative analyses;

B) Certification by an authorized agent of the laboratory that all analyses have been performed in accordance with the requirements of 35 Ill. Adm. Code 186 and the scope of accreditation; and

8) Licensed Professional Engineer affirmation in accordance with Section 740.410 of this Part.

(Source: Amended at 26 Ill. Reg. 7197, effective April 25, 2002)