**Section 734.320 Stage 2 Site Investigation**

The Stage 2 site investigation must be designed to complete the identification of the extent of soil and groundwater contamination at the site that, as a result of the release, exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants. The investigation of any off-site contamination must be conducted as part of the Stage 3 site investigation.

a) The Stage 2 site investigation must consist of the following:

1) The additional drilling of soil borings and collection of soil samples necessary to identify the extent of soil contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants. Soil samples must be collected in appropriate locations and at appropriate depths, based upon the results of the soil sampling and other investigation activities conducted to date, provided, however, that soil samples must not be collected below the groundwater table. All samples must be analyzed for the applicable indicator contaminants; and

2) The additional installation of groundwater monitoring wells and collection of groundwater samples necessary to identify the extent of groundwater contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants. If soil samples are collected from a monitoring well boring, the samples must be collected in appropriate locations and at appropriate depths, based upon the results of the soil sampling and other investigation activities conducted to date, provided, however, that soil samples must not be collected below the groundwater table. All samples must be analyzed for the applicable indicator contaminants.

b) The Stage 2 site investigation plan must include, but not be limited to, the following:

1) An executive summary of Stage 1 site investigation activities and actions proposed in the Stage 2 site investigation plan to complete the identification of the extent of soil and groundwater contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants;

2) A characterization of the site and surrounding area, including, but not limited to, the following:

A) The current and projected post-remediation uses of the site and surrounding properties; and

B) The physical setting of the site and surrounding area including, but not limited to, features relevant to environmental, geographic, geologic, hydrologic, hydrogeologic, and topographic conditions;

3) The results of the Stage 1 site investigation, including but not limited to the following:

A) One or more site maps meeting the requirements of Section 734.440 that show the locations of all borings and groundwater monitoring wells completed to date, and the groundwater flow direction;

B) One or more site maps meeting the requirements of Section 734.440 that show the locations of all samples collected to date and analyzed for the applicable indicator contaminants;

C) One or more site maps meeting the requirements of Section 734.440 that show the extent of soil and groundwater contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants;

D) One or more cross-sections of the site that show the geology of the site and the horizontal and vertical extent of soil and groundwater contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants;

E) Analytical results, chain of custody forms, and laboratory certifications for all samples analyzed for the applicable indicator contaminants as part of the Stage 1 site investigation;

F) One or more tables comparing the analytical results of the samples collected to date to the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants;

G) Water supply well survey documentation required pursuant to Section 734.445(d) of this Part for water supply well survey activities conducted as part of the Stage 1 site investigation; and

H) For soil borings and groundwater monitoring wells installed as part of the Stage 1 site investigation, soil boring logs and monitoring well construction diagrams meeting the requirements of Sections 734.425 and 734.430 of this Part; and

4) A Stage 2 sampling plan that includes, but is not limited to, the following:

A) A narrative justifying the activities proposed as part of the Stage 2 site investigation;

B) A map depicting the location of additional soil borings and groundwater monitoring wells proposed to complete the identification of the extent of soil and groundwater contamination at the site that exceeds the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 for the applicable indicator contaminants; and

C) The depth and construction details of the proposed soil borings and groundwater monitoring wells.

c) If the owner or operator proposes no site investigation activities in the Stage 2 site investigation plan and none of the applicable indicator contaminants that exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 as a result of the release extend beyond the site's property boundaries, upon submission of the Stage 2 site investigation plan the owner or operator must cease site investigation and proceed with the submission of a site investigation completion report in accordance with Section 734.330 of this Part. If the owner or operator proposes no site investigation activities in the Stage 2 site investigation plan and applicable indicator contaminants that exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 as a result of the release extend beyond the site's property boundaries, within 30 days after the submission of the Stage 2 site investigation plan the owner or operator must submit to the Agency for review a Stage 3 site investigation plan in accordance with Section 734.325 of this Part.

d) If the results of a Stage 2 site investigation indicate that none of the applicable indicator contaminants that exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 as a result of the release extend beyond the site's property boundaries, upon completion of the Stage 2 site investigation the owner or operator must cease site investigation and proceed with the submission of a site investigation completion report in accordance with Section 734.330 of this Part. If the results of the Stage 2 site investigation indicate that applicable indicator contaminants that exceed the most stringent Tier 1 remediation objectives of 35 Ill. Adm. Code 742 as a result of the release extend beyond the site's property boundaries, within 30 days after the completion of the Stage 2 site investigation the owner or operator must submit to the Agency for review a Stage 3 site investigation plan in accordance with Section 734.325 of this Part.