

## **APPENDIX VII-A RCRA FACILITY INVESTIGATION**

### **OBJECTIVES AND PURPOSE**

The objective of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) is to determine the nature and extent of a releases of hazardous waste or hazardous waste constituents at any Solid Waste Management Unit (SWMU) or Area of Concern (AOC) and if there is an unacceptable risk to human health or ecological receptors. The RFI may be conducted in two phases, Phase I or Phase II to determine if a release has occurred and to define the nature and extent of any release and collect sufficient data to conduct risk assessments. Phase II shall include an evaluation of all data collected in Phases I and II.

The evaluation of RFI data shall be conducted as defined in approved RFI Workplans, Utah Admin. Code R315-101 and applicable USEPA guidance and memorandums, or other correspondence from the Director describing requirements for the RFI. The final RFI report may include a Statement of Basis for each site as described in Appendix VII-B.

#### **1.0. Phase I RFI**

The Permittee has met all the requirements of the Phase I RFI for all SWMUs listed in Table VII-1. The Permittee shall conduct a Phase I RFI for all newly identified releases in accordance with Condition VII.F.1.

#### **1.1. RFI – Phase I Report**

Upon completing the Phase I investigation, the Permittee shall prepare and submit a Phase I RFI Report to the Director for written approval. The report shall be consistent in scope with the approved Phase I RFI Reports and shall include the requirements outlined in Condition VII.F.2.a. The Phase I RFI Report shall contain adequate information to support further investigation, interim actions, and/or corrective action decisions at the facility..

If the Director determines that the Phase I RFI Report is not adequate, the Director shall notify the Permittee in writing of the report's deficiencies and specify a due date for submittal of a revised Phase I RFI Report.

#### **2.0. Phase II RFI Workplans**

If the Permittee or the Director recommend additional investigation in the Phase I RFI Report, the Permittee shall prepare a Phase II RFI Workplan sufficient to address all data gaps identified in the Phase I RFI.

## **2.1. Phase II RFI Report**

The Permittee shall submit to the Director for written approval a Phase II RFI Report according to the RFI Work Plan approved schedule. The objective of the evaluation and report is to ensure that all the investigation data collected in Phases I and II are sufficient in quality and quantity to describe the nature and extent of contamination, including contaminant sources and migration pathways, and the potential threat to human health and/or the environment.

The Phase II Report may provide support for an NFA determination, need for interim actions, a corrective measure study, or a Site Management Plan. The Phase II RFI may include a Statement of Basis, as specific in Appendix VII-B.

## **2.2. Phase II RFI Workplan and Report Requirements**

The Phase II RFI Workplan and Report shall, at a minimum, address and include the following:

- 2.2.a. The sample analytical results, geophysical results, lithology logs, well logs, data quality assurance and quality control information, maps, survey data and other information as need to describe the nature and extent of contamination.
- 2.2.b. The information needed to identify sources of contamination, to estimate and describe the mass of contamination contained in sources or in contamination release in air or in groundwater plumes and to describe the use, value and vulnerability of groundwater as described in Appendix VII-B.
- 2.2.c. The information needed to describe chemical specific contaminant migration;
- 2.2.d. The information needed to identify pathways of exposure to humans and ecological receptors and complete risk assessments as required by Utah Admin. Code R315-101.
- 2.2.e. The information needed to evaluate the geological pathways of contaminant migration in air, bedrock, soil, surface water or groundwater as required by Utah Admin. Code R315-101-3.
- 2.2.f. The information describing background levels of contamination or other protection standards for air, bedrock, groundwater, soil and surface water as described in Section 2 below;
- 2.2.h. The analytical or other information needed to independently reproduce conclusions and sample data as presented in text, spreadsheets, maps or other formats.
- 2.2.j. Other information as required by the Director.

### **2.3. Protection Standards**

The levels of contamination as identified in the RFI Reports or other reports shall not be allowed to increase beyond the existing contamination levels determined through appropriate monitoring or the use of other data accepted by the Director, in accordance with Utah Admin. Code R315-101-3. The Permittee shall propose site-specific protection standards as outlined in sections 2.3.a. and 2.3.b. below:

#### **2.3.a. Air, Groundwater, Surface Water, and Soil Standards**

The Permittee shall propose protection standards for air, groundwater, soil and surface water for approval by the Director. These standards shall include but are not limited to: statistically derived background concentrations for naturally occurring elements and compounds, human health and ecological risk-based standards as set by Utah Admin. Code R315-101, the USEPA or other credible organizations acceptable to the Director, technology based limits such as maximum concentration limits (MCL) listed in Utah Admin. Code R315 and other standards as applicable. These standards shall be proposed in the Phase I and Phase II RFI Reports and CMS Workplans or other reports and plans as applicable.

#### **2.3.b. Other Relevant Protection Standards**

The Permittee shall document all relevant and applicable standards for the protection of human health and the environment including, but not limited to National Ambient Air Quality Standards and state or federal approved water quality standards.