

## **RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CORRECTIVE ACTIONS PROCESS EXPLAINED**

### **RFA – Initial Site Assessment**

The corrective action process usually begins with an initial site assessment, called a RCRA Facility Assessment (RFA). The purpose of an RFA is to gather data about a site, including data on releases and potential releases of hazardous waste and hazardous constituents, to determine whether a cleanup may be necessary. RFAs usually include a file review of available facility/installation information; a visual site inspection to confirm available information on solid waste management units (SWMUs) at the installation/facility and to note any visual evidence of releases; and in some cases, a sampling visit to confirm or disprove suspected releases. Please note the RCRA refers to facilities, which in the Army translates to installations, or in the case of Sunflower Army Ammunition Plant, former installations. Both facilities and installations will be used interchangeably in this document.

### **RFI – Site Characterization**

A RCRA Facility Investigation (RFI) is necessary when a release or potential release has been identified, but additional information is required to determine the nature and scope of possible corrective actions. The purpose of an RFI is to characterize the nature and extent of contamination at the installation and to support selection and implementation of a remedy or, if necessary, interim measures. For discussion later, this stage is broken up into RFI Work Plan, Field Work, and RFI Report. RFI Work Plan is the stage of designing how you will determine if there is contamination at the site and how to determine the extent. This is a regulator-approved plan that discusses sampling methodology and planned sampling locations. Field Work is when you take the activities described in the plan and put them into action. Some type of soil boring machine is used to take soil samples, surface water and sediment samples would be taken in accordance with the approved work plan, and groundwater samples are taken using monitoring wells. RFI Report is the final report that documents what was found and where it was found in order to support the decisions that have to be made at the site. Regulators are involved in the finalization process so that the report meets their requirements.

### **Interim Measures**

Interim measures are actions and activities used to control or abate ongoing risks to human health or the environment at an installation in advance of final remedy selection. Interim measures may be required in situations where contamination poses an immediate threat to human health or the environment. They also may be required to prevent further environmental degradation or contaminant migration prior to implementing the final remedy. Interim actions may occur at any point in the corrective action process; however, they are often implemented during the RFI or Corrective Measures Study (CMS). Recently, EPA has increasingly emphasized the importance of interim measures and site stabilization in the corrective action program.

## **CMS – Evaluation of Remedial Alternatives**

Depending on the outcome of the RFI report, the need for corrective measures is determined. A CMS documents the potential remedial alternatives that can be undertaken. These documents weigh the problems and benefits with each of the proposed alternatives. When the agency uses performance standards or a similar approach, or the preferred remedial alternative is obvious, it may not be necessary to submit a full CMS, but rather a focused CMS for the obvious remedy.

## **Remedy Selection**

The Army has an internal Decision Document process that notifies headquarters what the proposed remedy is for each of the sites. Under RCRA, KDHE selects the preferred remedy in a Statement of Basis or requires additional analysis of remedial alternatives prior to remedy selection. The tentatively selected remedy will then undergo public review and comment, usually in the form of a proposed modification to the installation's permit or corrective action order. Following public review, the KDHE responds to public comments and then modifies the facility permit or corrective action order to incorporate the remedy.

## **Corrective Measure Implementation (CMI)**

Once KDHE modifies the permit or corrective action order to include the selected remedy, the Army must begin to implement the remedy. Remedy implementation typically involves detailed remedy design, remedy construction, and remedy operation and maintenance. CMI requires a CMI work plan, CMI Field Work, and CMI Completion Report like the RFI stage of the remediation process. The CMI Work Plan designs the remedy to be implemented at the site and is submitted to KDHE for their approval prior to commencing fieldwork. The CMI Field Work involves constructing the remedy. Finally, a CMI Completion Report documents what was done at the site to achieve the selected remedy and is submitted to KDHE for their review prior to finalization.

## **Completion of the Remedy – Site Closeout**

Once corrective measures are complete, a no further corrective action planned (NFCAP) letter is submitted to the state for approval. KDHE will either terminate the corrective action order or modify the permit to remove the corrective action schedule of compliance to signify the completion of the remedy. Decisions regarding completion of corrective measures can be made for an entire installation, for a portion of the installation, or for a specified SWMU or AOC.