U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Contamination and Toxic Substances (Multifamily and Non-Residential Properties) – PARTNER

Summary of Remediation/Decommissioning Activities at Kerr McGee Site

The Kerr-McGee site is one of four Superfund National Priorities List (NPL) sites in the West Chicago area that had been contaminated with radioactive thorium wastes (see Figure 12). The radioactive waste came from a nearby facility known as the Rare Earths Facility (REF). The REF produced non-radioactive elements known as rare earths and radioactive elements such as thorium, radium and uranium along with gas lantern mantles for private entities and federal atomic energy programs. The following summarizes the series of environmental site assessments, investigations, and remediation activities that have occurred at the Kerr-McGee site since 1994 and the final decommissioning activities that are in progress.

In September 1993, Kerr-McGee submitted a license application to decommission the facility. After an extensive review period, in February 1994, the Illinois Emergency Management Agency (IEMA) informed Kerr-McGee that a phased approach to site decommissioning would be acceptable. IEMA has authorized a total of eight (8) phases and prepared environmental impact assessments for each phase (refer to the *Environmental Analysis Report - Phase V* provided as an attachment). The major activities authorized and accomplished under these phases are detailed below. In some cases, work authorized under one phase was not completed until a subsequent phase.

Phase I (May 1994): site preparation, including construction of support zone facilities, a retention pond, a rail siding, and a railcar loading facility.

Phase IA (August 1994): construction of additional support zone structures.

Phase IB (September 1994): shipment of significant amounts of material from surface stockpiles (sediment, tailings, debris piles, and containerized materials) to Envirocare; management and shipment of contaminated off-site materials brought on-site for shipment to Envirocare via the railcar loading facility.

Phase II (April 1995): excavation of waste pond sediments and some below-grade material; construction of infrastructure facilities; preparation of the site for a Water Pre-Treatment Plant and a Physical Separation Facility; backfilling of certain areas subject to IEMA verification.

Phase IIA (September 1995): shipment of 87,000 tons of contaminated on-site material and 54,000 tons of contaminated off-site material to Envirocare for disposal during calendar years 1995 and 1996.

Phase III (February 1997): excavation of contaminated materials; installation of sheet piling; backfilling of excavations and grading; construction of haul roads; construction and operation of the Water Treatment Plant and Simplified Physical Separation Facility; delineation drilling; groundwater monitoring. During 1997, 27,000 tons of contaminated material from the site and 51,000 tons of off-site material were shipped for disposal.

Phase IV (April 1998): deep excavation below the water table; dewatering; backfilling and final grading of the site. The site cleanup, except for groundwater remediation and a small footprint of contaminated soils beneath the railcar load-out facility was completed in November 2004. The railcar facility continued to operate while off-site materials were being received from the U.S. Environmental Protection Agency (EPA) Superfund cleanup of Kress Creek and the residential areas.

Phase V (June 2013): groundwater remediation is the final phase of cleanup under closure requirements outlined in the licensing regulations for this source/mill tailings site. A groundwater corrective action plan (CAP) was submitted by Tronox, and accepted by IEMA. Implementation of corrective actions could take 5 to 50 years to achieve the groundwater protection standards established to meet unrestricted release of the site.

In 2013, the WCERT hired contractors to excavate and ship contaminated materials, and restore the REF site to the final grading plan established in 1996. This contract was awarded in May 2013 and excavation activities started in July 2013. Work was scheduled to be completed in November 2013 but more subsurface contamination than estimated was discovered pushing the project into 2014.

Decommissioning activities in 2014 showed some progress with characterizing, excavating, and shipping contaminated soils that were previously unaccounted for. However, funding limitations delayed the timely removal of the remaining source until the spring of 2015. By the spring of 2015, Title X Department of Energy reimbursements had been re-established and the decommissioning was able to be completed. With the final railcar of contaminated soil shipped to Energy Solutions in Clive, Utah in November of 2015. All remediated areas were verified to comply with residential-use-based soil cleanup standards. After the soil remediation portion of the decommissioning activities was completed, the primary focus has been on groundwater remediation.

Although all on-site materials meet cleanup standards, residual constituents such as uranium continue to leach from some of the remediated soil into the shallow groundwater aquifer below the site. Under current conditions, the resulting contaminated groundwater in the shallow aquifer below the site does not pose an exposure threat to human health and the environment because it is confined to a small geographical area and its constituent concentrations are declining. Additionally, there are existing laws and regulations in place that prevent and control the use of this groundwater for human consumption and other uses. Furthermore, groundwater in the deep bedrock aquifers, from which the City of West Chicago derives its water supply, is not impacted by the shallow groundwater contamination at the site.

IEMA is overseeing the final phase of groundwater cleanup. West Chicago Environmental Response Trust (WCERT) has begun implementing the final corrective measures outlined in the Corrective Measures Implementation Work Plan that was approved by IEMA in 2022 to complete the groundwater remediation activities at the site. The final radiation cleanup of the groundwater is slated to finish in 2026. After the groundwater remediation portion of the decommissioning activities has been completed, the lands associated with those activities within the project area will be conveyed to the City of West Chicago for park development.