

FINAL DECISION AND RESPONSE TO COMMENTS
Kerr-McGee Chemical - Limited Liability Corporation
Springfield, Missouri, Facility
ID No. MOD007129406

INTRODUCTION

The United States Environmental Protection Agency (EPA) and the Missouri Department of Natural Resources (“the Department”) are issuing this Final Decision and Response to Comments, which identifies the selected final remedy for the Kerr-McGee Chemical - Limited Liability Corporation (KMCLLC) facility located in Springfield, Missouri, and presents the concerns and issues raised during the public comment period. No comments on the proposed final remedy summarized in the Statement of Basis (SB) were received by the EPA or the Department during the public comment period. Therefore, the final remedy proposed in the Statement of Basis was not altered as a result of public comments. Public comments received by the Department concerning the draft Missouri Hazardous Waste Management Facility (MHWMF) Part I Permit, which was put on public notice for review and comment concurrently with the SB, are addressed in a separate, but related, response to comments developed by the Department.

SELECTED FINAL REMEDY

A number of corrective measures were previously implemented and/or have been ongoing at the KMCLLC Springfield facility since the mid-1980s. These corrective measures include:

- Installation and operation of two groundwater containment trenches and several dense non-aqueous phase liquid (DNAPL)/groundwater recovery wells located hydraulically downgradient from an area where surface impoundments were historically used to manage wastewater. Operation of these trenches and wells will continue as part of the final remedy.
- Installation and operation of DNAPL/groundwater recovery wells in production process areas. Operation of these wells will continue as part of the final remedy.
- Installation and operation of DNAPL/groundwater recovery wells downgradient of the production process areas. Operation of these wells will continue as part of the final remedy.
- Installation and operation of an off-site groundwater recovery well. Operation of this well will continue as part of the final remedy.
- Operation of an on-site wastewater treatment plant to treat contaminated groundwater and process wastewater prior to discharge to the city sewer system. Operation of the treatment plant will continue as part of the final remedy.

- Installation and operation of a site-wide groundwater monitoring well system to monitor contaminant trends in the groundwater and assess the efficacy of DNAPL and groundwater recovery measures. Operation of this system will continue as part of the final remedy.
- Excavation and off-site disposal of contaminated soil from the area of an old surface impoundment (the “Pre-RCRA Cell”) and production process areas.
- Installation of creosote-impervious surfaces (clay/concrete covers) in production process areas to eliminate the potential for ongoing releases to the environment from areas such as drip pads, tank farms and unloading pads.

As indicated, the final remedy includes continued operation of several of the above-listed corrective measures. These measures, along with ongoing engineering controls, (e.g., restricted site access, fencing, security) are referred to in this document as the “existing corrective measures.” These measures have proven effective in removing sources of contamination, limiting the migration of contaminated groundwater and controlling human exposures to contamination.

In addition to the existing corrective measures outlined above, additional measures are incorporated into the MHWMF Part I Permit to ensure protection of human health and the environment. These additional measures include submittal and implementation of a long-term Operation, Maintenance and Monitoring (OM&M) Plan to govern the long-term aspects of the existing corrective measures, submittal of an assessment report for the Experimental Land Farm (“Land Farm”) to determine whether additional corrective measures may be required for this solid waste management unit, on-site restrictions on groundwater use and contaminated soil disturbance, permit transfer notification requirements, chain-of title recording requirements, routine reporting requirements and periodic evaluation of innovative technologies which may have future application in facility remediation. These additional measures are requirements of the MHWMF Part I Permit.

The final remedy selected by the EPA and the Department for the KMCLLC Springfield facility consists of continued operation and maintenance of all the existing corrective measures, supplemented with in-situ bioremediation when feasible, no additional action for site soils, (unless such action is warranted based on assessment of the Land Farm area) and the additional measures outlined above.

A number of the components of the final remedy have been constructed and have been in operation for several years. Consequently, EPA and the Department have had sufficient opportunity to evaluate their performance. The existing corrective measures have proven to be largely effective. Remedial alternatives were evaluated in the Corrective Measures Study (CMS), using general standards and several secondary factors (balancing criteria) as described in

EPA's Corrective Action Plan (final), OSWER Directive 9902.3, May 1994. These General Standards and secondary decision factors are listed below.

General Standards

- Overall Protection of Human Health and the Environment.
- Attainment of Media Cleanup Standards
- Control of the Sources of Releases
- Compliance with Standards for Management of Wastes

Secondary Decision Factors

- Long-Term Reliability and Effectiveness
- Reduction of Toxicity, Mobility or Volume of Wastes
- Short-Term Effectiveness
- Implementability
- Cost

EPA and the Department have determined that the selected final remedy is protective of human health and the environment, controls the source(s) of releases, complies with applicable standards for waste management, and is expected to attain media-specific cleanup/protection standards at the facility. Evaluation of analytical results obtained from continued groundwater and surface water monitoring, combined with ongoing risk assessment calculations from these results, will ensure that the final remedy remains protective by routinely quantifying any human health/environmental risks and acting as the trigger for further corrective action, including supplemental corrective measures, in the event that established risk levels are exceeded.

The groundwater treatment system has been operating effectively for years, and demonstrated short-term success when first implemented. The groundwater interceptor trenches act as an effective barrier against the migration of hazardous wastes and hazardous waste constituents via groundwater.

The previously-implemented corrective measures at the KMCLLC facility for contaminated soil were successful, reliable and resulted in mitigation of the spread of contamination. The facility fencing and site security provide a reliable and effective mechanism to restrict the potential for exposure to contamination, thereby reducing in the risk posed by the facility to human health and the environment. Institutional controls will further limit the potential for future human exposure to site contaminants by restricting use of the property.

PUBLIC PARTICIPATION ACTIVITIES

The EPA and the Department solicited public comment from November 28, 2001, to March 13, 2002, on the proposed final remedy at the KMCLLC facility along with the associated

MHWMF Part I and EPA Hazardous and Solid Waste Amendment (HSWA) Part II Permits. No comments were received by either agency on the proposed final remedy. Comments were received by the Department on the MHWMF Part I Permit. Those comments are addressed in a separate but related response to comments. No comments were received by EPA on the HSWA Part II Permit. The EPA and the Department set up a local information repository for public review of the documents leading to the proposal of the final remedy and provided the opportunity to request a hearing on the proposed final remedy during the public comment period. No hearing was requested.

FUTURE ACTIONS

The Department will have primary responsibility for oversight of future implementation of the ongoing corrective action activities at the KMCLLC facility under a RCRA post-closure permit. The instrument under which the corrective action has thus far been carried out, EPA's 1988 Administrative Order on Consent (Docket No. VII-88-H-0019), will be terminated.

DECLARATIONS

The United States Environmental Protection Agency has determined that the corrective action being taken at the KMCLLC facility is appropriate and will be protective of human health and the environment.

[Original signed by William A. Spratlin]

8/14/02

William A. Spratlin, Director
Air, RCRA, and Toxics Division, Region 7

Date