

OFF-SITE THORIUM REMOVAL PROGRAM
UNINCORPORATED RESIDENTIAL NEIGHBORHOODS
WEST CHICAGO, ILLINOIS

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UNINCORPORATED WEST CHICAGO AREA, OFF-SITE THORIUM REMOVAL

Introduction

Thorium-containing materials have been identified at various locations in unincorporated areas near the City of West Chicago. The thorium bearing deposits are small in area and do not pose a health threat, but are both a source of adverse publicity and concern to the residents.

In recognition of this situation, Kerr-McGee Chemical Corporation is undertaking a voluntary program to remove certain thorium containing soil deposits from these unincorporated areas. Kerr-McGee is doing this in the spirit of cooperation and public interest, as Kerr-McGee does not have any legal responsibility to do so. The program elements are described below.

UNINCORPORATED RESIDENTIAL NEIGHBORHOOD THORIUM REMOVAL PROGRAM

The unincorporated area residential neighborhood program involves identifying the material to be removed, excavating and removing the material, restoring disturbed areas, and returning excavated materials to KMCC's licensed West Chicago facility. The removal program will exclude soils adjacent to and within waterways and below the existing water table. Excavated materials returned to the facility will be managed with similar materials previously removed from City of West Chicago properties.

A. Identifying Thorium-bearing Locations

1. Authorization: Oral permission to survey a property will be obtained by Kerr-McGee. The survey will be conducted by a trained Kerr-McGee survey team equipped with appropriate gamma field survey instruments.

2. Criterion: Any area on a property determined to have an external gamma radiation level that exceeds 35 micro-R per hour at one meter above the surface will be marked for removal subject to permission of the property owner.
3. Marking Areas: Areas identified as exceeding the removal criterion will be noted on sketches or maps of the property.

B. Removing Identified Materials

1. Excavating Thorium-Containing Material: Kerr-McGee will, in a careful and expeditious manner, remove identified materials using hand equipment and/or small machinery as appropriate to minimize property disturbances.

Excavation on a property will be started only after (i) Kerr-McGee has obtained the property owner's written permission on the form shown in Appendix 1, (ii) the existing physical conditions have been documented with photographs, and (iii) the homeowner has applied for and received the appropriate county excavation/fill permit authorizations.

2. Excavated Material: Kerr-McGee will place the excavated material in appropriate containers, such as drums, metal boxes or trucks and cover the tops. Kerr-McGee will promptly transport the material to an unincorporated parcel of the Kerr-McGee West Chicago facility for management in accordance with USNRC license conditions.
3. Resurveying Excavated Areas: Kerr-McGee will resurvey the area excavated using gamma survey instrumentation to assure that the material has been removed to the extent practicable.

4. Exceptions: If an area marked for removal includes a structure, Kerr-McGee and the property owner will consult and agree on a course of action in consideration of the physical conditions and potential for exposure to the materials.

C. Restoring Excavated Areas

1. Refilling Excavated Areas: After areas have been excavated, Kerr-McGee will, without unnecessary delay, refill with clean soil the areas from which the thorium-containing material has been removed and re-establish previous contours. Appropriate equipment will be used so as to keep disturbances to a minimum. Any plants, shrubs or structures that were removed to allow excavation will be returned (or replaced as appropriate) to locations documented in the photos (large older plants and shrubs may have to be replaced with small younger plants and shrubs).
2. Resurveying After Restoration: Kerr-McGee will resurvey the restored areas to document the external gamma levels.

D. Managing Excavated Material

1. Hauling to the Facility: Kerr-McGee will haul excavated materials to the facility site. The vehicles will be unloaded in an unincorporated area inside the licensed facility site boundary.
2. Handling at the Facility: Kerr-McGee may relocate the materials brought to the facility site within the unincorporated area. Containers to be reused will be emptied and returned to the facility site perimeter.

3. Stockpiling at the Facility: Excavated material relocated by Kerr-McGee to the facility site will be stockpiled separately from other materials on the site. Documentation will be maintained showing origin of the excavated material, quantities received, date of receipt, and level of radiation.
4. Future Responsibility: After material excavated under the unincorporated residential neighborhood thorium removal program has been unloaded at the facility site, the property owner from whose property the material originated will not have any further responsibility for the care and management of that material.

E. Personnel Requirements and Equipment

1. Survey Team: The survey team will consist of trained personnel provided by Kerr-McGee. The team will be equipped with a gamma survey instrument, large scale maps or sketches, and other items as required or appropriate for identifying locations with thorium-containing materials greater than 35 micro-R per hour at one meter.
2. Excavation Team: Kerr-McGee will provide an appropriately-manned excavation team as dictated by conditions involved for a specific location. The team will include a trained radiation surveyor to guide the removal of the material and its placement in containers and to assure adherence to radiation safety practices. Excavation equipment will consist of shovels, picks and other hand tools and where feasible, small mechanical diggers/loaders.
3. Hauling: The excavated material will be hauled by truck to the Kerr-McGee West Chicago facility.

4. Facility Handling Team: Trained Kerr-McGee site personnel will handle the material delivered to the facility.
5. Restoration Team: An appropriately manned restoration team and necessary restoration equipment will be provided by Kerr-McGee.

F. TIMETABLE AND MANNING

The unincorporated neighborhood thorium-containing material removal program is effective the date of this document. Removal work at specific properties will begin at a time agreed to by Kerr-McGee and the property owner following receipt of the property owner's oral authorization to survey and the identification of any materials requiring removal.

Project management will be under the direction of Kerr-McGee Chemical Corporation's West Chicago facility management and will include a health physicist. The project management personnel will have the authority to exercise judgment and make decisions to expedite the work.

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MATERIAL REMOVAL AND RESTORATION AGREEMENT

I am the owner of real property located at

I grant Kerr-McGee Chemical Corporation permission to enter the property named above and remove material and restore the areas from which the material has been removed, generally as described below.

REMOVAL: _____

RESTORATION: Property will be restored to original condition, as per photographs taken of the area, including yard, plantings and/or structures involved in the excavation process. Resident agrees to water all restored areas as necessary. Resident agrees that some plants, shrubs or trees may be replaced with like species younger and smaller in size consistent with nursery husbandry practices.

By: _____

Address: _____

Date: _____

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