

United States Government

Department of Energy

Oak Ridge Field Office

memorandum

SLDS
Administrative
Record
9809071028

DATE: June 26, 1995

REPLY TO
ATTN OF: EW-93:Adler

SUBJECT: SLDS - ACTION MEMORANDUM FOR THE REMOVAL OF CONTAMINATED MATERIALS
AT THE ST. LOUIS DOWNTOWN SITE

TO: File

The purpose of this memorandum is to describe environmental restoration actions planned for radiologically contaminated properties located in St. Louis, Missouri. These properties are part of a larger collection of properties located in the St. Louis area being addressed by the Department of Energy's Formerly Utilized Sites Remedial Action Program.

An Engineering Evaluation/Cost Analysis (EE/CA) was prepared to analyze alternatives for managing the contaminated material at the St. Louis Downtown Site (SLDS). This document was issued for public review and comment on June 7, 1991. The public comment period extended from June 7 through July 10, 1991. Since that time a commercial facility for the disposal of 11e(2) wastes has become available. The existence of that facility expands the options available for management of the waste generated by the interim actions.

This memorandum is intended to support interim remedial actions that will be undertaken at SLDS while the process for the selection of a final remedy proceeds. The following types of interim actions have been identified:

- support plant proprietors and vicinity property owners in the performance of activities involving movement or displacement of contaminated materials,
- minimize waste through segregation and/or decontamination,
- consolidate contaminated materials in controlled areas,
- minimize potential health hazards to on-site personnel,
- collect and analyze soil samples after interim remedial actions to confirm that decontaminated areas meet applicable guidelines, and
- dispose of contaminated materials at an off-site commercial facility when such action is deemed to be cost effective and protective.

The Plant 10 cleanup is an example of the interim actions that this Action Memorandum is intended to support. This cleanup will return an entire city block to use without radiological restrictions. The following activities will be undertaken during the removal action for clean-up of Plant 10 at the Downtown site and are typical of other actions which might be undertaken.

- radiological and chemical sampling and radiological surveying to refine the boundaries of contamination and characterize the waste stream for disposal,

- excavation of soil and debris which is above DOE guidelines for residual radioactivity,
- removal or decontamination of below-grade installations in contaminated areas as required,
- staging of waste in engineered areas (to prevent migration of contamination) pending shipment for disposal,
- loading and shipment of waste for disposal,
- post-work surveying and sampling to ascertain and verify that Plant 10 (City block 1201) can be released for use without radiological restrictions or to set appropriate supplemental standards, and
- restoration of work areas to a usable condition.

The cleanup criteria are specified in the SLDS EE/CA (DOE, May 1991). The DOE guidelines with which the interim actions will comply include limits for residual concentrations of radium and thorium in soil, which have been adopted from standards promulgated by the EPA. The concentration limits for these radionuclides above background values are 5 pCi/g averaged over a 100-m² for the top 15 cm of soil and 15 pCi/g for each 15 cm increment below the surface (DOE Order 5400.5). The DOE guidelines for structural material to be released for use without radiological restriction are 5,000 dpm/100cm² average and 15,000 dpm/100cm² maximum, and 1,000 dpm/100cm² removable for uranium and beta-gamma emitters. These limits are to be applied separately for alpha and beta-gamma activity (DOE Order 5400.5). In addition to the criteria provided in DOE Order 5400.5, the interim actions will comply with a site-specific guideline of 50 pCi/g above background for uranium-238 in soil.



Lester K. Price, Director
Former Sites Restoration Division