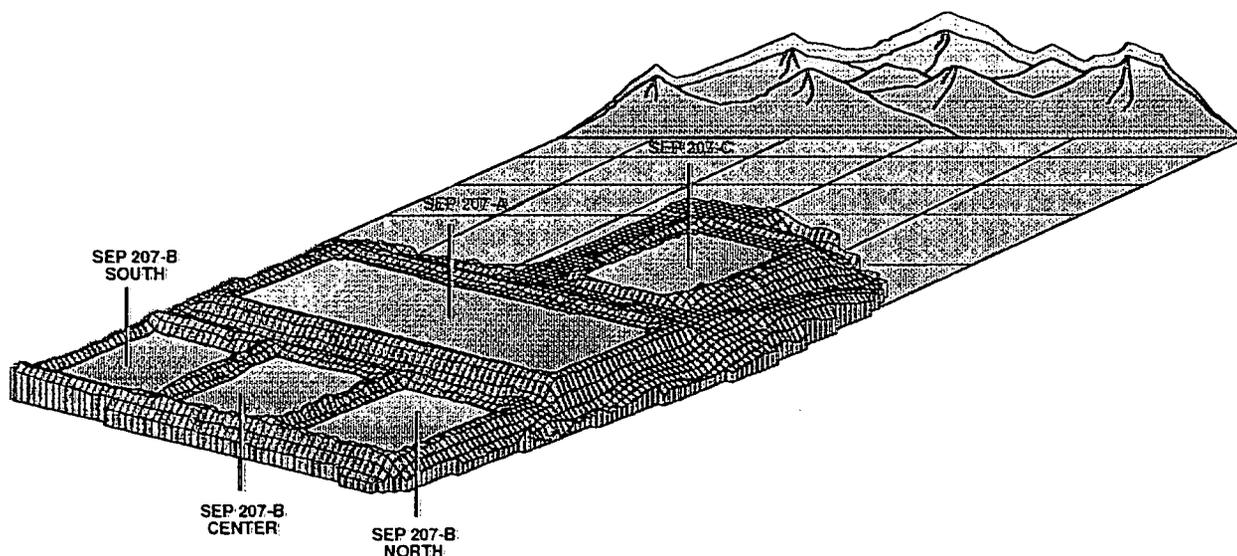


OU4 Interim Measure/Interim Remedial Action Environmental Assessment Decision Document

Part I - Introduction

Summary



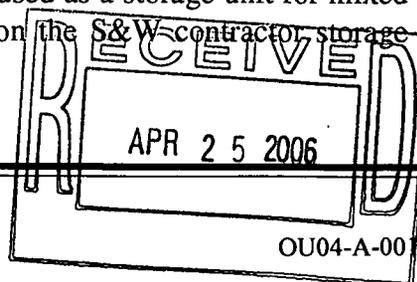
Part I Summary

Part I of the IM/IRA-EA Decision Document provides an introduction to the OU4 IM/IRA program, a description of OU4, and an assessment of the OU4 environmental setting. The IM/IRA-EA Decision Document was prepared to request community input and Colorado Department of Public Health and the Environment (CDPHE) and U.S. Environmental Protection Agency (EPA) Region VIII approval to close Operable Unit 4 (OU4) at the U.S. Department of Energy's (DOE's) Rocky Flats Environmental Technology Site (RFETS) in Jefferson County, Colorado. The OU4 closure consists of the Solar Evaporation Ponds (Ponds), which are identified collectively as Individual Hazardous Substance Site (IHSS) Number 101, and Building 788 (RCRA Units 21 and 48). For the purpose of implementing the IM/IRA, OU4 has annexed IHSS 176 that includes Building 964 (RCRA Unit 24), which will be addressed as a component of the closure.

The Ponds were used primarily for temporary storage and evaporation of low-level radioactive process wastes and neutralized acidic wastes containing aluminum hydroxide with high levels of nitrate. Building 788 was used for the solidification of pond sludges and the storage of the solidified sludges known as "pondcrete". Building 964 was used as a storage unit for mixed radiological and hazardous waste for non-hazardous materials on the S&W contractor storage yard (IHSS 176).

ADMIN RECORD

1



OU04-A-00 760

Under the Interagency Agreement (IAG), a Federal Facility Agreement and Consent Order dated January 22, 1991, DOE is required to close and remediate OU4 in accordance with an approved two-phase IM/IRA program. The Phase I program addresses the characterization of the Pond components, liners, pondcrete, sludge, and soils, and the selection of a closure/remediation alternative. This document describes the Phase I program. The Phase II program will evaluate more fully the nature and extent of any contaminant releases from the Ponds, and will determine the added risk (if any) associated with contaminant release. The Phase II program will focus on ground water contamination to assess if ground water remediation is required.

The Decision Document is a RCRA Class III permit modification request initiated by the DOE to gain approval to implement all the activities proposed in the IM/IRA-Environmental Assessment (EA) Decision Document. The EA component of this document is presented to comply with the National Environmen-

tal Policy Act (NEPA) requirements. The final Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA) Record of Decision (ROD) and the concurrent RCRA Corrective Action Decision (CAD) for the Pond remediation/corrective action will be issued at the conclusion of the Phase II program.

In accordance with the IAG, DOE conducted the OU4 RFI/RI to select an IM/IRA for the closure of the Ponds as a Phase I remediation activity. The primary objective of the remediation activity established under the OU4 IM/IRA program is to close the Ponds and remediate contaminated soils without an adverse impact to human health and the environment. In addition to the primary objective, Part I identifies eleven supporting programmatic objectives identified in Table 1.

The remainder of Part I identifies the site history, OU4 background, the IM/IRA scope, followed by an overview of site characteristics and environmental setting.

TABLE 1
OU4 IM/IRA PROGRAMMATIC OBJECTIVES

- To characterize the nature and extent of surface and vadose zone soil contamination and to characterize contaminant sources (e.g., Pond liners, sludges, pondcrete, and components);
- To assess the potential human health and environmental risks resulting from unmitigated exposure to contaminants found in soils and/or air which present a cumulative carcinogenic risk greater than 1.0×10^{-6} ;

- To determine the need to prevent, eliminate, or mitigate potential exposure to human and environmental receptors from soil contaminants, airborne contaminants, and contaminated surface water runoff;
- To be consistent with the final long-term remedy for OU4 and, to the extent practicable, to be consistent with the expected requirements for ground water protection;
- To be in accord with Paragraphs 15, 150, and Attachment 2, Section I.B.10 of the IAG, which requires that the IM/IRA be consistent with the guidance provided in Volume 55 of the *Federal Register*, page 8704, for implementing interim actions and to comply with the CHWA interim status closure requirements and post-closure care requirements for hazardous waste surface impoundments;
- To comply with the CDPHE- and EPA-approved Applicable or Relevant and Appropriate Requirements (ARARs) as specified in the IAG. The IM/IRA will comply with the required portions of RCRA; the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA); and the National Environmental Policy Act (NEPA);
- To be designed and implemented within the schedule milestones specified in the IAG as amended by a dispute resolution;
- To minimize the generation of new waste requiring treatment, storage, and/or disposal;
- To be acceptable to the community and approved by the regulatory agencies;
- To include implementation provisions that will eliminate or minimize the potential spread of contaminants as a result of implementing the IM/IRA; and
- To be implemented within the congressionally accepted fiscal constraints.