

FINDING OF NO SIGNIFICANT IMPACT FOR INTERIM AND REMEDIAL ACTIONS AT OPERABLE UNIT 1

Description of Interim Actions

Treatability studies and interim remedial actions will be performed at Hill Air Force Base (Hill AFB) Operable Unit 1 (OU 1) in northern Utah to evaluate the effectiveness of technologies proposed for remediation of the site, and to limit exposure/spread of contamination until remedial alternatives have been selected and implemented. Treatability studies to be performed at OU 1 include soil vapor extraction (SVE), bioventing, and surfactant flushing treatability studies. Interim remedial measures include installation of additional monitoring wells, fencing of Spring U1-306, and installation of a ground-water containment system on-Base to limit westerly migration of contaminants.

Description of the Proposed Action

The proposed action is to select a remedial design for clean-up of contaminated soil, ground water, surface water, light non-aqueous phase liquid (LNAPL), landfill contents, and landfill gas at OU 1. This remedial action will be selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, by the National Oil and Hazardous Substances Pollution Contingency Plan. The proposed action includes:

- In-situ treatment of soil by vapor extraction and bioventing
- Extracting contaminated ground water using horizontal drains, extraction trenches, or vertical wells, and sending extracted ground water to Hill AFB's industrial wastewater treatment plant (IWTP) and the local publicly owned treatment works (POTW) for treatment
- Collecting surface water and treating with an air stripper, granular activated carbon (GAC), or metal-enhanced reductive dehalogenation (MERD) if seeps continue to flow after implementing the ground-water remedy
- Collection and incineration of LNAPL
- Capping the contents of Landfills 3 and 4 and treating by soil vapor extraction (this would include treatment of landfill gas).

Description of Alternatives

As part of the OU 1 Feasibility Study conducted in accordance with the CERCLA process, a wide range of alternatives for meeting remedial response objectives were

identified, screened, and analyzed. Alternatives not selected are identified by media below.

Soil alternatives included no action (periodic site review); limited action (periodic site review and institutional controls); containment with impermeable caps and vertical barriers; extraction, above-ground treatment by vapor extraction and dechlorination (if necessary), and on-site disposal; excavation, on- or off-Base incineration and disposal; in-situ treatment by soil washing/flushing; and excavation for on- or off-Base disposal.

Ground-water remedies included no action (monitoring); limited action (monitoring and institutional controls); containment and treatment of ground-water as necessary to maintain containment; interception and treatment by air stripper, GAC, or UV oxidation and discharge to injection wells and/or the Weber River; in-situ treatment by air sparging and vapor extraction; and in-situ MERD treatment with a funnel-and-gate system.

Surface water remedial alternatives included no action; limited action; and collection and discharge to the local POTW.

LNAPL alternatives included no action; limited action; and containment using vertical barriers.

Landfill contents alternatives included no action; limited action; containment with an impermeable cap; and excavation and removal to a permitted hazardous waste disposal facility.

Landfill gas remediation alternatives included collection and treatment with ground flares.

Summary of Environmental Impacts of Interim Remedial Measures and the Proposed Action

Air Quality. Construction-related impacts include fugitive dust and emissions from vehicles. These are not expected to have a significant impact on overall air quality in the Davis-Weber vicinity. Operation of the treatment systems is not expected to have a discernible effect on regional air quality because the emissions would be controlled to meet applicable State and Federal standards. Emissions sources would need to be identified in Hill AFB's Title V air permit application.

Surface and Ground-Water Hydrology. Installation of horizontal drains/vertical wells to intercept contaminated ground water for treatment will result in a gradual lowering of the shallow aquifer. The ground-water seeps at the base of the hill slope will probably dry up or have reduced flow as a result.

Surface and Ground-Water Quality. The proposed remedial action eventually would restore surface and ground-water quality to meet Federal and State Water Quality Standards. The estimated time-frame for this restoration is 225 years.

Slope Stability. A study currently is being conducted to evaluate the impacts of interim and remedial activities on slope stability. The results of this study will be incorporated into system designs.

Vegetation. The project will result in clearing of 25 to 30 acres of vegetation for construction of the ground-water system and for installation of the landfill caps. One additional acre would be cleared if surface water remediation is required. There is potential that some of the seeps could be considered wetlands. Before construction in seep areas, the U.S. Army Corps of Engineers will be consulted to determine the extent of jurisdictional wetlands and associated requirements. At that time, the functions and values of any wetlands would be analyzed, and impacts of the remediation systems would be assessed.

Wildlife. The proposed action would result in minor habitat loss and disturbance to wildlife during construction and operation of the interim measures and remedial systems. When Spring U1-306 is fenced, a water trough will be provided as an alternate water source for wildlife in the area. Neither habitat loss nor disturbance is likely to cause changes in wildlife population distribution or abundance. No endangered species are known to inhabit the project area.

Archaeology and Historical Resources. The proposed action is not expected to affect any cultural or historic resources.

Land Use. No changes in on- or off-Base land use are expected. Implementation of institutional measures could involve leasing of some off-Base property, but landowners will be compensated fairly by the Air Force.

Noise. Construction and operation would produce noise. This additional noise is not expected to be discernible outside the immediate project area.

Human Health and Safety. The remedial action will protect human health and safety by eventually restoring the environment to Federal and State standards. Worker safety would be a high priority during construction and operation, including adherence to all applicable safety requirements.

Conclusion

Based on the findings of this environmental assessment, there are expected to be no significant impacts from treatability studies, interim actions, or the proposed remedial action. Therefore, issuance of a Finding of No Significant Impact (FONSI) is warranted and an Environmental Impact Statement is not required. The Air Force, in this decision, will employ all practical means to minimize potential adverse impacts on the local environment.

Hill Air Force Base, Utah

Thomas Meier

Environmental Protection Committee Chairman

9 Dec 94

Date