



**ANDERSEN AFB
GUAM**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 581

ACTION MEMORANDUM

1.0 Purpose

The purpose of this action memorandum is to request and document approval of the proposed removal action described herein for Site 5/Landfill 7 located at Andersen Air Force Base. This action is requested in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120 Federal Facility Agreement, Administrative Docket Number 93-17, entered between the United States Environmental Protection Agency and the United States Air Force. Final signatures were obtained on the agreement document on March 30, 1997.

2.0 Site Conditions and Background

The site is classified as non-time critical and approval for the removal action is requested. A historical overview of the Andersen AFB facility is presented in 2.2.1 of the *Final Basewide Quality Assurance Project Plan for Andersen Air Force Base, Guam*, October 1997. A general description of Site 5/Landfill 7 is presented below. The description of the site is based on historical information provided by the Air Force and the *Final Engineering Evaluation/Cost Analysis Report for IRP Site 05/Landfill 07*, EA Engineering, Science, and Technology, Inc., January 2000.

2.1 Site Description

2.1.1 Removal Site Evaluation

Site 5/Landfill 7 was operational in the late 1950s and used for sanitary, industrial, and debris disposal. The site supposedly consisted of a shallow excavated trench filled with metallic, concrete, wood and solid construction debris. Soil cover was used to close the site prior to construction of the Capehart Housing Area in 1958. Sections of the landfill were reportedly excavated during construction of the housing area in 1958. The remainder of the landfill was covered with soil as part of the grading and landscaping activities.

Field investigations and environmental sampling at Site 26 were performed according to the Work Plan Addendum to Operable Unit 6 for Operable Unit 5, and the Basewide Remedial Investigation/Feasibility Study Standard Operating Procedures (SOP). The field investigation included a site reconnaissance, an electromagnetic induction survey (EM) and soil gas, surface soil, and groundwater sampling. An ecological survey was not performed at Site 26 because the site is developed land located within the active housing area.

Although none of the surface soil sample results exceeded the Residential Preliminary Remediation Goals (PRG) or Background Threshold Values (BTV) for semivolatile organic compounds (SVOC), polynuclear aromatic hydrocarbons (PAH), or metals, one of the ten samples analyzed for dioxins exceeded the residential PRG. Results of the

subsurface soil samples indicated no VOCs, SVOCs, or PAHs above residential PRGs. The metals antimony, copper, iron, lead, and manganese were detected at concentrations exceeding their respective Residential PRGs and BTVs. In addition, all six subsurface samples tested for dioxins exceeded both industrial and residential PRGs.

2.1.2 Physical Location

Site 5/Landfill 7 is located in the northern section of Guam on Andersen AFB in the northwest corner of Capehart Housing Area along Carabao Avenue. The site is located within the residential housing area and includes 13 residential buildings on the northern ends of Bataan, Hibiscus, and Gecko Lanes. Jungle adjacent to the north of the Capehart Housing area forms the northern boundary of Site 5/Landfill 7.

2.1.3 Site Characteristics

As mentioned previously, Site 5/Landfill 7 is located in an active residential housing area. Manicured lawn dominates the habitat between the houses, with a mixture of ornamental shrubs and trees. There are no wetland communities or surface water bodies within the site. Although there are several areas of Andersen AFB protected as critical habitats for several plants and animals, none of the critical habitats for these species include the location of Site 5/Landfill 7. No future land use/development is anticipated at this site for the next 10 years (Alba 1977).

2.1.4 Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Contaminants detected in the soil samples collected on site include antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, silver, vanadium, zinc, and dioxin.

2.1.5 NPL Status

The EPA placed Andersen AFB on the National Priorities List (NP) on October 14, 1992 because of the potential for groundwater contamination. A Federal Facility Agreement (FFA) finalized in March 1993 between Andersen AFB, Guam Environmental Protection Agency (GEPA), and EPA provided a framework and schedule for environmental activities and requires the Air Force to retain liability and continuous rights of access until environmental cleanups are completed. The Civil Engineer Squadron, Environmental Flight administers the environmental cleanup at Andersen AFB.

2.1.6 Maps and Diagrams

Maps and diagrams presenting the site location and proposed work areas are provided in Attachment 1 to this memorandum.

2.2 Other Actions To-Date

2.2.1 Previous Actions

Andersen AFB has been keeping the public regularly informed about the progress of the environmental activities through various community relations tools. These tools include the development of a Restoration Advisory Board (RAB), issuing copies of final reports for relevant IRP documents to the Robert F. Kennedy and Nieves M. Flores Memorial Libraries for public use, and the publication of fact sheets and newsletters. The RAB members include a representative from U.S. Congressional Delegate Underwood's office, local legislators, mayors, regulatory agency representatives, and community representatives.

2.2.2 Current Actions

Andersen AFB will continue to communicate with the public regarding the environmental activities currently being planned at Site 5/Landfill 7.

2.3 Territorial and Local Authorities Role

2.3.1 Potential for continued Territorial/Local Response

GEPA maintains their involvement in all decision making regarding the remedial actions conducted at this site through the review of all work plans and final reports and participation on the RAB. GEPA will also maintain involvement by participating in the quarterly Remedial Project Manager (RPM) meetings.

3.0 Threats to Public Health, Welfare or the Environment, and Statutory and Regulatory Authorities

3.1 Threats to Public Health or Welfare

A human health risk assessment was conducted to evaluate the potential for risks to human health and the environment from exposures to analytes identified as COPCs during the field investigation. Dioxin, copper, lead, and vanadium were identified as COPCs in surface soil; dioxin, antimony, barium, cadmium, copper, lead, manganese, silver, and zinc were identified as subsurface soil COPCs. Media of concern considered in the risk assessment included surface soil, subsurface soil, and air. Groundwater was not considered an exposure medium due to depth to groundwater beneath the site (475 feet bgs). Completed exposure pathways for Site 5/Landfill 7 therefore included: incidental ingestion of surface/subsurface soils during residential activities, dermal contact with surface/subsurface soil during utility maintenance activities, and inhalation of suspended soil particles during residential/utility maintenance activities. Current and future resident children and adults, and utility workers were therefore considered the receptor populations for which risks were estimated. Antimony, lead, and TCDD-TEQs

were identified as COCs in the utility worker exposure scenario. For the future adult resident, antimony, manganese, and TCDD-TEQs were identified as COCs.

3.2 Threats to the Environment

Based on a combination of qualitative assessment and quantitative risk characterization, COPC at Site 5/Landfill 7 – dioxin, copper, lead, vanadium, and zinc – were determined not to pose risk to ecological receptors. Given the “negligible potential risk” (USEPA, 1997b), no further ecological evaluation is required.

4.0 Endangerment Determination

Actual or threatened releases of pollutants and contaminants from the site, if not addressed by implementing the removal action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

5.0 Proposed Actions

5.1 Proposed Action Description

Areas containing COCs above residential PRGs at Site 5/Landfill 7 will be excavated to a depth of six feet. Confirmation soil samples will be collected from the excavation sidewalls following the removal of the contaminated soil. The excavation will be backfilled with clean material. Soil directly under the foundation of a housing unit will not be excavated.

There will be no excavated soil stockpiled on site. The excavated soil will be immediately transported to Waste Pile 1 to be stockpiled on and covered with 10-mil polyethylene sheeting. Soil sampling and analysis of the stockpiled soil will determine the appropriate disposal method, either at the base landfill or a proper off-island disposal facility.

5.2 Contribution to Remedial Performance

The proposed removal action is expected to complete the cleanup of Site 5/Landfill 7. No further action beyond the removal action is anticipated.

5.3 Applicable or Relevant and Appropriate Requirements

The removal action at Site 5/Landfill 7 will be conducted as part of the Installation Restoration Program (IRP). Requirements of the IRP have been developed and modified to ensure that the Department of Defense (DOD) complies with federal applicable or relevant and appropriate requirements (ARARs) of the Resource Conservation and Recovery Act (RCRA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Comprehensive Environmental Response, Compensation,

and Liability Act (CERCLA), and the Superfund Amendment and Reauthorization Act (SARA).

5.4 Project Schedule

Initial site preparation work is scheduled to begin in January 2001 with an anticipated completion date of 30 April 2001 for the final Remediation Verification Report.

6.0 Outstanding Policy Issues

No outstanding policy issues exist for the proposed removal action at Site 5/Landfill 7.

7.0 Enforcement

The removal action at Site 5/Landfill 7 is being initiated by the United States Air Force who is identified as the potentially responsible party (PRP). The Air Force is dedicated to performing this removal action in the most prompt and expeditious manner possible.

8.0 Recommendation

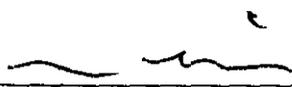
This decision document represents the selected removal action for Site 5/Landfill 7, Main Base Operable Unit, Andersen Air Force Base, Guam, developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended, and not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for the site.



 United States Air Force

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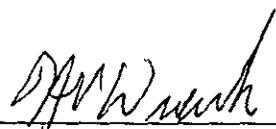
 Date of Signature



 United States Environmental Protection Agency

8/8/02

 Date of Signature



 Guam Environmental Protection Agency

10/30/00

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