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File: 17-07  
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**ANDERSEN AFB  
GUAM**

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**ADMINISTRATIVE RECORD  
COVER SHEET**

AR File Number 478

## 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 10, Landfill 14 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 10, Landfill 14 Mainbase Operable Unit is presented below. The description of the site is based on historical information provided by the Air Force.

#### 2.1 Site Description

##### 2.1.1 Removal Site Evaluation

Site 10, Landfill 14 was reportedly operational from the 1950s through 1976 and was used for sanitary industrial, and debris disposal. The site supposedly consisted of a shallow excavated area with fill, concrete debris, wood, and solid construction debris. Soil cover was used to close the site

Field investigations and environmental sampling at Site 10, Landfill 14 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). Field work was conducted between February and July, 1997. The field investigation included a site reconnaissance/detailed site inventory, surface soil sampling, and a topographic survey.

The site was initially considered to be one acre in size according to the IRP Phase I final Report, the 1986 RCRA Facility Assessment (RFA) Report and the IRP Phase II, Stage 1 Final Report. However, the site was visited during the summer of 1992 in preparation of the Basewide Work Plan for OU6 and was determined to be as large as four acres in size. During a site reconnaissance in March 1997, it was noted that waste disposal activities covered an area greater than four acres, therefore, the site was further expanded to approximately 33 acres in size to fully assess waste disposal. Due to the increase in size

of the site, the quantity of samples originally prescribed by the work Plan was increased to sufficiently characterize the site.

Site reconnaissance was performed to locate the horizontal boundary of landfill operations. From the location of the depression, which originally comprised the site, surficial debris extends around the toe of the skeet range to a cliff dumpsite located to the northeast. Surficial debris and mounds extend to the Perimeter Road northwest of the depression. To the south of the depression, surficial debris continues to the CE laydown yard access road. Included in this area is a cliff dumpsite containing approximately 400 drums, which were disposed of as surface debris. In general, the boundary of the southwest portion of the site is defined by a sharp transition from dense Tangan-Tangan vegetation and surficial debris within the site to maintained grass-covered fields or roadways. The boundary for the remainder of the site transitions from dense Tangan-Tangan vegetation with surficial debris to mature limestone forest with no evidence of disposal activities.

Once the extent of the site was established, reconnaissance trails were cleaned on 100 foot surveyed grid intervals. A detailed site inventory was performed to document physical evidence of surface disposal within the site. Tape measures, 100 feet in length, were laid out along the cell within a one-foot accuracy. Evidence of potentially hazardous materials, such as 55-gallon drum labels, were described in detail. Indicators, of when disposal activities occurred, such as Coca-Cola bottle dates, were also noted.

The site is comprised of two major cliff lines, mounds, terrace-like structures, and large areas of surficial debris. The two cliff lines are covered with surficial household debris, construction debris including, steel holding tanks, corrugated metal sheeting, and beverage cans and bottles. Airplane tires, 55-gallon steel drums containing a tar-like substance and aircraft batteries were found along the northernmost cliffline. Along the southernmost cliffline, approximately 100 55-gallon steel drums were located in the same location identified as having approximately 30 drums during the Summer 1992 site visit. Mounds average 10 feet in diameter of primarily aboveground fill and broken concrete blocks were also observed. The remainder of the site consists of large areas (where the bedrock is within 0.5 feet of the surface) covered by surficial debris. The surficial debris is described as construction debris such as corrugated metal, piping, fixtures, and porcelain used for plumbing, utility poles and associated fixtures, wires, cables, beverage containers, dumpsters, and abandoned vehicles.

Approximately 400 55-gallon steel drums (of which approximately 120-150) are leaking tar-like substance) are among the surficial debris in a large area from the base of the southernmost cliff line to the boundary of the site. The conditions of the drums range from rusted with intact bungs but with partially legible label, to severely pitted from corrosion with no bung, lid sides, or legible label. The drums are both empty and coated with a tar-like substance, or partially filled and leaking a tar-like substance. The substance has seeped on to the ground in the area of the drums with thickness ranging from 0.1 to 0.25 feet. In addition, there is a drum in good condition, which appears to contain motor oil, and a few partially full to full drums of grease-like material adjacent to

empty "CE Silicone" drums. In addition, there are some solid blocks of silver paint-like material without containers. A few items of unexploded ordnance (UXO) consisting of flare charges and a smoke pot, were identified and removed from the site.

### **2.1.2 Physical Location**

Site 10 is located south of the eastern end of Perimeter Road. The access road through the Civil Engineer (CE) lay down yard borders the southern side of the site, while mature limestone forest borders the northeastern side of the site. A maintained, grassy maintenance road borders the west side of the site. A skeet range used by military personnel is located just off of the Perimeter Road in the northwestern corner of the site.

### **2.1.3 Site Characteristics**

As mentioned previously, the site was used for the surface disposal of wastes, primarily construction debris and various other solid wastes. There are currently no operating facilities on site. The site is currently owned by the United States Air Force. There have been no removal actions conducted at this site to-date.

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

Chemicals of Potential Concerns detected in the heterogeneous wastes stored at Site 10 may have adsorbed onto surface soil particles. COPCs may also have been released into the air as a result of disturbance of affected soils (e.g., by wind and other climatic factors, or by trespassing activities). The amount of surface soil particulate released into the air is dependent on the soil particle size, the physical properties of the soil, and the level of activity on the soil.

Surface soil, subsurface soil, air, and deer and pig meat were identified as environmental transport media for the release of chemicals present at Site 10. According to ecological risk assessment, none of the COPCs posed any potential adverse environmental risk at Site 10. However, according to human health risk assessment, there are potential adverse health effects for the resident adults and children associated with some COPCs. Antimony and manganese were the two COPCs that may have a non-carcinogenic effect to potential resident children who may inadvertently ingest or inhale the impacted soil at the site. These estimates of adverse health effects are conservative and likely to be overestimated.

### **2.1.5 NPL Status**

The NPL placed Andersen AFB on the National Priorities List (NPL) 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 activities at Andersen AFB. To date, no remedial actions have been conducted at Site 10, Mainbase Operable Unit.

### **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 personnel will continue to communicate with the public regarding the environmental activities currently being planned at Site 10/Mainbase Operable Unit.

## **2.3 Territorial and Local Authorities Role**

### **2.3.1 Territorial and Local Actions To-Date**

The Resource Conservation and Recovery Act (RCRA) Facility Assessment of Solid Waste Management Units (SWMUs) (SAIC, 1986) included Site 10 as 1 of 63 SWMUs identified on Andersen AFB and the Northwest Field OU. The landfill reportedly operated without any release controls, however, evidence of potentially hazardous releases in the area was not observed and no records of releases were found. It was not known if hazardous wastes were disposed at this landfill. Reportedly, Site 10 was operational from the 1950s through 1976 and was used for sanitary, industrial, and debris disposal. The site supposedly consisted of a shallow excavated area with fill, concrete debris, wood, and solid construction debris. Soil was used to close the site.

### **2.3.2 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**

The remedial investigation and risk screening of IRP Site 10, Landfill 14 indicated the presence of metals (antimony, lead, manganese, and copper) and PAHs (benzo [a] anthracene, benzo [a] pyrene, benzo [b] fluoranthene, benzo [k] fluoranthene, chrysene, dibenzo [a, h] anthracene, and indeno [1, 2, 3-cd] pyrene as site-specific COPCs at approximately six geographically distinct areas. In addition three drums with motor oil and/or hydraulic fluid and approximately 400 drums and drum remnants with tar/asphalt material were identified.

#### **3.2 Threats to the Environment**

### **4.0 Endangerment Determination**

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

### **5.0 Proposed Actions**

#### **5.1 Proposed Action Description**

The proposed actions at Site 10, Landfill 14 are described in the following sections. The removal action activities are based on the information detailed in the documents referenced in Section 2.1.1.

##### **5.1.1 Excavation of Buried Drums/Miscellaneous Containers and Debris**

Asphalt and asphalt containing drums (approximately 400) would be excavated, transported to the asphalt recycling plant (base landfill) and recycled. The three drums with motor oil and/or hydraulic fluid would be properly characterized and disposed.

Asphalt material would be analyzed for asphalt characteristics (ASTM method) to assure that the material can be recycled into a useable product. Other drum contents (motor oil and hydraulic fluid) would be sampled and analyzed for the Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (i.e. the Toxicity Characteristic Leaching Procedure – TCLP), corrosivity, reactivity, and ignitability) to determine if the material should be disposed of at the base landfill or at an off-island hazardous waste landfill. The Andersen AFB landfill does not accept hazardous waste. Impacted soil

would be consolidated within Andersen AFB property. Soils determined hazardous waste would be transported to an approved disposal/treatment facility in the mainland. The motor oil and hydraulic fluid would either be disposed of through the DRMO or to an approved waste disposal treatment facility.

The asphalt would be recycled at the processing unit at the active base landfill. Recycled asphalt would be placed in 55-gallon drums for reuse and drum carcasses would be crushed and disposed of in the base landfill. Upon completion of removal/disposal activities, solid decontamination wastes such as personal protective equipment would be disposed of as solid waste at the base landfill.

## **5.2 Contribution to Remedial Performance**

The proposed removal action is expected to complete the cleanup of Site 10, Landfill 14. No further action beyond the removal action is anticipated.

## **5.3 Applicable or Relevant and Appropriate Requirements**

The removal action at Site 10, Landfill 14 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 on September 6, 1999 with an anticipated completion date of December 31, 1999.

## **6.0 Outstanding Policy Issues**

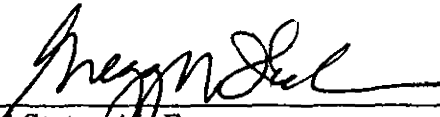
No outstanding policy issues exist for the proposed removal action at Site 10, Landfill 14.

## **7.0 Enforcement**

The removal action at Site 10, Landfill 14 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

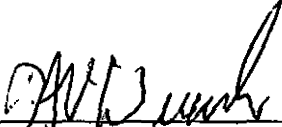
This decision document represents the selected removal action for Site 10, Landfill 14, Main Base Operable Unit, Andersen Air Force Base, Guam, developed in accordance with the Comprehensive Environmental Response, compensation, and Liability Act (CERCLA) as amended, and not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for the site.

  
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United States Air Force

11/1/00  
Date of Signature

  
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United States Environmental Protection Agency

9/1/00  
Date of Signature

  
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Guam Environmental Protection Agency

10/31/00  
Date of Signature



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