



**DEPARTMENT OF THE AIR FORCE**

HEADQUARTERS 49TH FIGHTER WING (ACC)  
HOLLOMAN AIR FORCE BASE, NEW MEXICO

07 FEB 2000

MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT (NMED)

Attn: Cornelius Amindyas  
Hazardous & Radioactive Materials Bureau  
P.O. Box 26110  
Santa Fe NM 87502

FEB 2000  
RECEIVED

FROM: 49 CES/CEV  
550 Tabosa Avenue  
Holloman AFB NM 88330-8458

SUBJECT: Hazardous and Solid Waste Amendments (HSWA) Quarterly Report (Oct-Dec 99)

1. In accordance with Module IV, Section E, of Holloman AFB HSWA permit, attached please find the Oct-Dec 99 (first quarter FY 00) Quarterly Report.
2. If you have any questions, please contact Mr. Court Fesmire at (505) 572-5395.

  
HOWARD E. MOFFITT  
Deputy Base Civil Engineer

Attachment:  
HSWA Quarterly Report for Oct-Dec 99

cc: w/Atch  
Mr. Allen Chang  
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HOLLOMAN AIR FORCE BASE, NM

HAZARDOUS AND SOLID WASTE AMENDMENT

QUARTERLY REPORT

Oct-Dec 1999

(First Quarter FY 00)

**I. INTRODUCTION**

A. Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended by the RCRA Statute (42 U.S.C. 6701, et seq.), as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984, a permit has been issued to Holloman AFB to operate a hazardous waste disposal facility.

B. This Quarterly Report is consistent with the terms and conditions of the permit found under Module IV.

**II. DESCRIPTION OF WORK COMPLETED.**

A. The following is a list of solid waste management units (SWMUs) and Installation Restoration Program (IRP) sites investigated under the IRP program. Also listed are the site descriptions and status as of this quarter.

**SUMMARY OF HOLLOMAN AFB IRP/SWMU SITES**

IRP/ SWMU #	Site Description	Material Disposed	Dates of Operation	Status
1/106	Main Base Landfill	Construction rubble, small quantities of solvents, waste oil, and pesticides	1958-1996	SC/LTM
2/AOC-T ✓	POL Spill Site No. 1	JP-4 and other fuels	1960-1970s	LTO
3/114	POL Tank Sludge Burial Site	Sludges, rags, iron fragments	1955-1975	SC
4/102	Acid Trailer Burial Site	Acid trailer, lab equipment, bottles, spent rockets	1958	SC
5/AOC-T ✓	POL Spill Site No. 2	JP-4	1978	LTO
6/AOC-R ✓	Fuel Line Spill Site No. 2	JP-4	1979	SC
7/110	Rubble Disposal Site	Wood, nails, sheet metal	1965 - Present	SC
8/82	Refuse Collection Truck Washrack	Pesticides	1970s	SC/LTM
9/42	POL Drum Storage/Spill Area	Waste oils, solvents, hydraulic fluid, fuels	1965-1980	SC
10/101,109	Old Main Base Landfill	Domestic waste, incinerator ash, solvents, waste oil	1942-1958	SC/LTM
11/107	Main Base Electrical Substation	PCBs	Unknown-1979	SC
12/AOC-K ✓	Fuel Line Spill Site No. 1	JP-4	1975	SC

IRP/ SWMU #	Site Description	Material Disposed	Dates of Operation	Status
13/AOC-J ✓	Sodium Arsenite Spill Site	Sodium Arsenite	1979	SC
14/197	Former Entomology Shop	Pesticides	1968-1977	SC
15/80	Refrigeration/Heat Shop Washrack	Sulfuric Acid	1971-1981	SC
16/132,118 AOC-A ✓	Existing Entomology Shop	Pesticides	1977-Present	SC/LTM
17/AOC-Q ✓	BX Service Station Fuel Leak	Gasoline	1950s-Present	LTO
18/AOC-H ✓	Chromic Acid Spill Site	Chromic Acid	1970s	SC
19/105	Golf Course Landfill	Grass clippings, rodenticides	1968-1978	SC/LTM
20/113A	WWTP Grit Burial Site	Sludge from grit chamber	1947-Present	SC
21/116	West Area Landfill No. 2	Paper bags, boxes, boards	1970-1977	SC/LTM
22/115	West Area Landfill No. 1	Plastic sheets, boxes, cans	1974-1978	SC/LTM
23/108	MOBSS Landfill	Diazinon, dibromochloromethane, construction debris, drums, buckets	1976-1979	SC/LTM
24/134	Former Equipment Maint. Area	Cleaners, waste solvents, oils	1959-1970	SC
25/166	Possible Drainage Lagoon Disposal Site	Pesticides, HTH, solvents	1977	SC
26/AOC-D ✓	Possible Missile Fuel Spill Site	Waste fuels	1976	SC
27/141	Pad 9 Washrack Area	Radioactive Materials	1940s	SC
28/212	Former North Area Washrack	Oils, detergents, fuels	1950s	SC
29/104	Former Army Landfill	Spent munitions and missiles	1950s-1975	SC/LTM
30/113B	Grease Trap Disposal Pits	Wastes from grease trap	1959-Present	SC/LTM
31/170,171, 127,135,39	Fire Department Training Area	Waste oils, solvents, fuels	Unknown-1990	LTO
32/PRI-A ✓	Sewer line from Primate Research Lab	Carbon-14, iodine, tritium, solvents	1960s-1981	SC
33/113B	Cooking Grease Disposal Pits	Cooking grease	Unknown-Present	SC/LTM
34	Spent Munitions Burial Site	Spent munitions	Unknown	SC

IRP/ SWMU #	Site Description	Material Disposed	Dates of Operation	Status
35/PRI-5	Spent Solvent Disposal Area	Radioactive tracers, solvents	1950s	SC
36/129,178	Unconventional Fuels Storage Site	JP-X, nitric acid, UDMH, aniline, JP-4	1950s	SC
37/AOC-E ✓	Early Missile Testing Site	Fuels, lead oxide, nitrate compounds, acids	1947-1955	SC
38/137,138	Sled Test Maintenance Area	Waste oils, solvents, paint, strippers	1951-1979	SC
39/165,167, 177,179,181	Missile Fuel Spill Area	Oxidizers, fuels	Unknown-1975	SC/LTM
40/103	Causeway Rubble Disposal Site	Concrete rubble	Unknown- Present	SC
41/192	Coco Block House Borehole Disposal Site	Propellants, oxidizers	1960s	SC
42/111	Radioactive Material Burial Site	Radioactive material	1950s	SC
43/AOC-G ✓	Atlas Electrical Substations	PCBs	Unknown-1979	NFA
44/AOC-P ✓	Bldg. 301 Aircraft Maintenance Hangar	Heating oil, fuel	Unknown	SC/LTM
45/AOC-O ✓	Old AGE Refueling Station	Gasoline, JP-4, diesel	Unknown-1980s	SC
46/130,AOC-S	JP-4 Spill Site	Waste JP-4	1978-1990	SC
47/21,22, 133	POL Washrack Discharge Area	Waste JP-4	1953-1993	LTO/NFAR/ SC/ASR
48/AOC-N ✓	Military Gas Station	Gasoline	Unknown- Present	SC/LTM
49/148-154	Sewage Lagoons	Hazardous wastes	1943-1996	SC/ASR
50	Waste Disposal Pit	Can, drums	Unknown	SC
51/PRI-S ✓	Primate Research Lab Borehole Disposal Site	Radioactive material, solvents	1950-Present	SC
56	West Ramp Fuel Spill	Fuels	Unknown- Present	SC
57/AOC-V ✓	Officer's Club	Diesel, sulfurous compounds	1960-Present	LTO
58/231	Incinerator/Landfill	Ash from unconventional fuels, film	Unknown- Present	SC
59/19,20,229	T-38 Test Cell Fuel Spill Site	JP-4	1966-1991	LTO

IRP/ SWMU #	Site Description	Material Disposed	Dates of Operation	Status
60/230	Bldg 828 Fuel Spill Site	Diesel, gasoline, JP-4	1977-1991	LTO/NFAR ASR
61	Bldg 1001 Fuel Spill Site	Fuel, 1,2-DCA	1940's-1970s	RI/FS
62	Ritas Draw	Unknown	Unknown	PA/SI/ASR
63	Ammunition Yard Disposal Area	Explosives, Fuel	1940's-1960's	PA/SI
→ AOC-BBMS ✓	Bare Base Mobility Squadron	JP-4	Unknown	SC
→ AOC-RR ✓	Buried RR Cars	Waste oil, fuel	Unknown	SC

AOC Area of Concern (Air Force Designation)  
 ASR Awaiting State Review (i.e., NMED review)  
 FFCA Federal Facility Compliance Agreement  
 IRA Interim Remedial Action  
 LTM Long Term Monitoring  
 LTO Long Term Operation  
 NFAR No Further Action Requested  
 PA/SI Preliminary Assessment/Site Investigation  
 RA Remedial Action (includes report writing and submission)  
 RI/FS Remedial Investigation/Feasibility Study  
 SC Site Close-Out  
 SI Site Investigation

### III. SUMMARY OF FINDINGS.

#### SWMU 229 (IRP Site SS-59)

Operation of the T-38 Test Cell dual phase vapor extraction (DPVE) system continued this quarter. In addition, Holloman is evaluating the feasibility of converting the current JP-8 fired thermal reduction system to natural gas. Currently, skimmers are being used in conjunction with low-level vacuum to enhance recovery operations. Additional skimmers will be ordered and installed in the second quarter of FY 00. Holloman had anticipated ordering and installing the new units in this quarter; however, the order was delayed due to budgetary constraints.

Approximately 225,805 gallons of product have actually been removed from the water table and soil to date. This system is anticipated to operate through 2001.

#### SWMU 230 (IRP Site SS-60)

Operation of the Bldg 828 Fuel Spill biovent system continued this quarter. All free product has been removed from the water table and NMED soil cleanup levels have been reached. Approximately 21,555 pounds of hydrocarbons have been removed and 2.15 million gallons of water treated since remediation commenced. The dual phase system was shut down during the last quarter and a biovent configuration implemented. This action allows LTO to continue at the site with lower maintenance costs while HAFB awaits NMED review of the closure request. Holloman continued to operate the

biovent system at this site. Site characterization and no further action (NFA) documentation have been submitted to NMED for approval. A request for supplemental information has been received by Holloman. The response is being developed.

#### SWMU AOC-T (IRP Site 02/05)

The soil vapor extraction (SVE) system at SWMU AOC-T, the POL Spill Sites, continued to operate this quarter. To date, approximately 48,114 pounds of JP-4 have been removed. During routine Direct Push Technology (DPT) sampling at the site this quarter, a void was discovered near the mid-section of the extraction well system. Within this void, free product is floating on the groundwater. Holloman has removed this site from consideration for NFA at this time and is programming money for a new IRP project at this site. Skimmer pumps will be ordered and installed during the second quarter of FY 00 to remove the free product.

#### SWMU 133 (IRP Site SD-47)

The biovent system at Building 703, Washrack Discharge Area, has remediated the soil to NMED soil cleanup levels. The biovent system has been removed from the site. Site characterization and NFA documentation have been submitted to NMED for approval.

#### SWMUs 39, 127, 135, 170, 171 (IRP Site FT-31)

This quarter, SWMUs 39, 127 and 135 were excavated and the contaminated soil removed from the site. The biovent system operations at SWMUs 170 and 171 continued this quarter. The system at the two remaining SWMUs has 16 injection wells that inject air into the subsurface. The air provides oxygen used by microorganisms to degrade JP-4 fuel. Respirometry tests conducted at the site have shown the system has been effective in remediating contamination at the site. The system will have respirometry tests run biennially to effectively track the system operation and project the timing of remediation to the required 1,000 ppm TPH. Respirometry testing and biennial soil borings were completed during the second quarter of FY 99. This system is anticipated to operate through 2000.

#### AOC-Q (IRP Site SS-17)

A SVE system was installed in Sep 95 to remediate gasoline contaminated soil at the site. The system was comprised of 16 soil vapor recovery trenches and a thermal oxidation unit. The SVE system has been converted into a biovent system that continues to operate while closure documentation is being developed. The thermal oxidation unit no longer operates, although the system remains in place at this time until action is taken on a closure request.

A total of approximately 68,381 pounds of contamination were remediated by the SVE system.

#### SWMU AOC-V (IRP Site SS-57)

An air sparge/biovent/SVE system was installed (Nov 96) at the Officer's Club to remediate diesel contamination. The system is a combined sparge/SVE system designed to remediate the soil and promote aerobic activity reducing levels of H<sub>2</sub>S production at the site. The system continues to perform well and is anticipated to operate through 2000. DPT results from the latest round of sampling are currently being reviewed. The contractor is compiling a report to Holloman.

#### SWMU 136

The biovent system at SWMU 136 was excavated and the entire system removed during this quarter. Site characterization and NFA documentation are being prepared and will be submitted to NMED for approval when complete.

SWMUs 148-154 (IRP Site WP-49)

The former sewage lagoons have been out of service since 1996. Construction activities associated with the closure began in the fall 1996. Construction activities were completed in Dec 97. Final activity, including revegetation, fence repairs and deed notification preparations were completed during the second half of 1998. Final closure of the lagoons is pending. The closure report was submitted to NMED in Jul 99. The lagoons will be inspected by the state in the second quarter of FY00 to determine compliance with the closure requirements.

IV. PROJECTED WORK FOR THE NEXT REPORTING QUARTER – JAN-MAR 00

<u>TASK</u>	<u>ANTICIPATED COMPLETION DATE</u>
A. Long-Term Operation of SWMU 229 DPVE System	Sep 01
Installation of additional skimmer pumps	Feb 00
B. Long-Term Operation of SWMU 230 DPVE System	ASR
C. Long-Term Operation of SVE System at SWMU AOC-T	Sep 00
Installation of new skimmer pumps to remove free product	Feb 00
D. Long-Term Operation of the remaining Biovent System at Fire Training Area (SWMUs 170 & 171)	Sep 00
E. Long-Term Operation of Air Sparge/Biovent/SVE System at SWMU AOC-V, the Officers Club	Sep 00
F. RCRA Permit Modification Request (HSWA Module)	Jun 00
G. Long-Term Operation of SVE System at SS-17	Sep 00
H. Final report on the closure of the sewage lagoons	Aug 00
I. Draft closure report on the 300 lb burn area	Mar 00
J. Draft closure report on the Main Base Landfill	Mar 00