



DEPARTMENT OF THE AIR FORCE

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



MEMORANDUM FOR NEW MEXICO ENVIRONMENT DEPARTMENT (NMED)

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

SUBJECT: Hazardous and Solid Waste Amendments (HSWA) Quarterly Report (Jan-Mar 99)

1. In accordance with Module IV, Section E, of Holloman AFB HSWA permit, attached please find the Jan-Mar 99 Quarterly Report.
2. If you have any questions, please contact Jose Gallegos at (505) 475-5395.


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Deputy Base Civil Engineer

Attachment:
HSWA Quarterly Report

cc: w/Atch

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HOLLOMAN AIR FORCE BASE, NM

HAZARDOUS AND SOLID WASTE AMENDMENT

QUARTERLY REPORT

JAN-MAR 1999

ATCH 1

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 of 1984 (HSWA), 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, Section E.

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/NFAR/ ASR |
| 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/NFAR/ ASR |
| 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-L | 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 | SC |
| 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/ ASR |
| 48/AOC-N | Military Gas Station | Gasoline | Unknown- Present | SC/LTM |
| 49/148-154 | Sewage Lagoons | Hazardous wastes | 1943-1996 | RA |
| 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 | 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 |
| 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

Operation of the T-38 Test Cell dual phase vapor extraction (DPVE) system continued this quarter. Optimization tests were performed on the unit to maximize system efficiencies during Sep-Dec 98. During Jan-Mar 99, results from the optimization tests were evaluated and the results will be used to improve operations starting in May 99. Previous optimization efforts resulted in recoveries of 500 to 590 gallons per day.

The previous quarterly report (Sep-Dec 98) reported 220,000 gallons of product removed. However, following further evaluation, this number should be corrected. Approximately 217,150 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

Operation of the Bldg 828 Fuel Spill DPVE system continued this quarter. All free product has been removed from the water table and NMED soil cleanup levels have been reached. Approximately 21,600 pounds of hydrocarbons have been removed and 2.15 million gallons of water treated since remediation commenced. Site characterization and no further action (NFA) documentation have been submitted to NMED for approval.

SWMU AOC-T

The soil vapor extraction (SVE) system at SWMU AOC-T, the POL Spill Sites, continued to operate this quarter. To date, approximately 47,200 pounds of JP-4 have been removed. Confirmation borings show that this system has remediated the site to NMED soil cleanup standards. Site characterization and NFA documentation have been submitted to NMED for approval.

SWMU 133

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

SWMUs 39, 127, 135, 170, 171

The biovent system operations at the Fire Training Area continued this quarter. The system has 22 injection wells that inject air into the subsurface. The air provides oxygen that is 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 biannually to effectively track the system operation and project the timing of remediation to the required 1,000 ppm TPH. Tests are scheduled during the second quarter of 1999. Biannual soil borings will also be taken to compare respirometry results to soil TPH concentrations.

SWMU AOC-V

An air sparge/biovent/SVE system was installed (Nov 96) at the Officer's Club to remediate diesel contamination. The system has a single injection well with three discreet air injection depths. The SVE serves to remove any potential infiltration of diesel vapors into the Officer's Club produced by the air injection. The system continues to perform well and is anticipated to operate through 1999.

SWMU 136

The biovent system at SWMU 136 became operational Apr 97. The system consists of a positive displacement (rotary-lobe) blower, above grade piping and one air injection well. The blower supplies injected air to remediate TPH-contaminated soil. The system continues to perform well.

SWMUs 148-154

The former sewage lagoons have been out of service since 1996. Construction activities associated with the closure began in Fall 1996. Construction activities were completed in December 1997. 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 closure report submittal to NMED. Submittal is expected during June 99.

IV. PROJECTED WORK FOR THE NEXT REPORTING QUARTER – APR-JUN 99

| <u>TASK</u> | <u>ANTICIPATED COMPLETION DATE</u> |
|---|--|
| A. Long-Term Operation of SWMU 229 DPVE System | Sep 2001 |
| B. Long-Term Operation of SWMU 230 DPVE System | Jun 1999 |
| C. Long-Term Operation of SVE System at SWMU AOC-T | Jun 1999 |
| D. Long-Term Operation of Biovent System at Fire Training Area (SWMUs 170 & 171) | Sep 1999 |
| E. Long-Term Operation of Air Sparg/Biovent/SVE System at SWMU AOC-V, the Officers Club | Sep 1999 |
| F. Long-Term Operation of Biovent System at SWMU 136 | Jun 1999 |
| G. Long-Term Monitoring sampling (biannual event) | Aug 1999 |
| H. RCRA Permit Modification Request (HSWA Module) | Jun 1999 |