DEPARTMENT OF THE AIR FORCE

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

MAR 1994
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HAZARDOUS WASTE
PROGRAM

18 FEB 1994

MEMORANDUM FOR DISTRIBUTION (Attachment 1)

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

SUBJECT: Technical Review Committee (TRC) Meeting

1. Place: 49th Fighter Wing Conference Room, Building 29

2. Time: 0900, 28 January 1993

3. Chairman: Brig Gen John F. Miller, Jr

4. Attendance:

Brig Gen John F. Miller, Jr. (Chairman)	49 FW/CC
Col Robert C. Huff	49 FW/CV
Col A. Weyermuller	49 OG/CC
Col M. Rosenthal	49 LG/CC
Col M. Anthony	49 SPTG/CC
Col W. Huyghe	49 MEDGP/CC
LtCol T. Atkinson	49 FW/JA
LtCol M. Fitz	49 CES/CC
Maj P. Mierer	49 FW/SEG
Maj R. Dinsmore	49 BBSG/CC
Lt Eric Swenson	49 CES/CEV
SMSgt G. Leonnig	49 SPS/SPOL
Craig Olsen	USACE, Omaha District
Mark Mercier	USACE, Omaha District
Clipper Carpenter	Dyncorp/RSD
Frank Halstead	Dyncorp/RSD
Gordon Ewing	Mesilla Valley Audubon Society
Stephen Pullen	NMED/HRMB
Janice Hewitt	49 FW/JA
Jerry McDermott	49 FW/SEG
Howard E Moffitt	49 CES/CD
Dr Fred Fisher	49 CES/CEV
James Waldron	49 CES/CEV
Tim O'Donnell	49 CES/CEV
Warren Neff	49 CES/CEVR
Randy Louvier	49 CES/CEVR
Robert Johnson	49 CES/CEVR
Diane Hansen	49 CES/CEVR

5. Lt Col Michael Fitz opened the meeting by welcoming off-base personnel and other guests, then turned the meeting over to Mr Neff, the Remedial Program Manager of the Installation Restoration Program (IRP).

6. Mr Neff explained the meeting would be given in two parts: a) general overview of the IRP at Holloman AFB (HAFB); and b) technical discussion of IRP sites currently under investigation (Atch 2).

GENERAL SESSION

7. Mr Neff began by giving an overview of the four main phases of the IRP program regulated by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 and the details involved in each phase (Atch 3): a) Preliminary Assessment/Site Inspection (PA/SI) - involves a record search, taking preliminary soil borings and installation of a few monitoring wells to determine if a problem of contamination actually exists on a particular site; b) Remedial Investigation/Feasibility Study (RI/FS) - if contamination is detected during the PA/SI, additional soil borings are taken and more monitoring wells are strategically installed to clearly determine the nature and extent of contamination, and remedial alternatives are considered; c) Remedial Design/Remedial Action (RD/RA)- if it is determined that the contamination poses a threat to human health and/or the environment, then a remedial design is implemented by using a variety of technologies such as excavation, soil vapor extraction, etc.; d) Site closure/No Further Action (SC/NFA) - after the site has been remediated to meet both New Mexico Environment Department (NMED) and Environmental Protection Agency (EPA) standards, then site closeout and no further action can be recommended through a decision document (DD).

8. Mr Neff explained the IRP process can be short-circuited at each of the particular phases, depending upon the type, nature, and extent of contamination found and whether or not the site poses a threat to human health or the environment.

9. Mr Neff gave a status report of the 58 IRP sites and one area of concern on HAFB (Atch 4). By the end of FY94, 7 sites will be in the PA/SI stage, 10 will be in the RI/FS stage, 8 will be in the RD/RA stage, and 34 will be closed out.

10. Mr Neff stated that since HAFB has a Defense Reutilization and Marketing Office (DRMO) facility, the base is required to have a Resource Conservation and Recovery Act (RCRA) Permit. As part of this process, a RCRA Facility Investigation was conducted which identified 229 Solid Waste Management Units (SWMUs) on base. Mr Neff defined a SWMU as any area that stored or generated hazardous waste. It was determined that 117 SWMUs were required to be investigated. These SWMUs were ranked into three separate tables, according to the severity of contamination, the threat posed to human health, and the environment.

11. Mr Neff further explained that each time a SWMU is remediated, a RCRA Permit modification is required to remove the site from the permit (Atch 5). He then stated that HAFB was the first federal facility in EPA Region VI to submit a Hazardous Solids and Waste Amendments (HSWA) Permit Modification. At a public meeting held at the Alamogordo Civic Center on 26 Aug 93, 18 sites were proposed for removal from the base permit. EPA Region VI has concurred with the request. A public notice will be published by EPA Region VI. If there is no response from the public, then the modification will be granted.

12. Mr Neff gave an overview of the base FY94 IRP program (Atchs 6 and 7). A PA/SI will be conducted at the Area of Concern related to a fuel spill at Bare Base Systems Group (BBSG). The BX Service Station will have a full-scale Soil Vapor Extraction (SVE) system installed as the final stage of remediation to clean-up the contaminated soils beneath the site. Sampling and analysis will be performed on the sewage lagoons to support a risk assessment and subsequently, select a remedial action for the site. Site SD-08, the Refuse Collection Truck Washrack, will receive an asphalt cap to remove an inhalation hazard from pesticide contamination. Site OT-03, the Tetraethyl Lead Disposal Site, a small area of contamination outside the POL area, has been excavated to remove contaminated soil as a remedial action. As an interim remedial action, the remainder of debris will be removed from Site OT-04, the Acid Trailer Burial Site. Long-term monitoring will be conducted as an EPA requirement for several sites on base. For 14 Table 1 sites, a more extensive RI will be conducted to satisfy EPA requirements. A Corrective Measures Study/Corrective Measures Implementation (CMS/CMI) by enhanced vacuum pumping will begin at the

T-38 Test Cell to remediate 1.7 million gallons of free-phase product on the water table beneath the test cell and the contaminated soils at the site. A RCRA Facility Investigation (RFI) is also currently underway for Table 2 SWMUs. This investigation includes smoke tests currently being conducted on the base sewer system. The work plans for the Table 3 SWMUs RFI will be submitted to EPA Region VI in FY94. Upon approval, the RFI for Table 3 SWMUs will be conducted later this year.

13. Mr Neff provided a brief explanation of the status of the Total Environmental Restoration Contract (TERC) awarded to HAFB and two other bases (Atch 8). EBASCO Environmental has been awarded a $150 million TERC contract for HAFB involving two projects: long-term monitoring for multiple sites and a PA/SI study at the area of concern at BBSG.

14. Mr Neff presented information concerning the Air Force Institute of Technology (AFIT) Team Approach Class held at HAFB on 7-9 Dec 93 (Atch 9). The objective of the class was to institute a risk-based clean-up partnering relationship between federal facilities, New Mexico Environment Department (NMED), and EPA Region VI. Attendees for the class included 2 from NMED, 5 from EPA Region VI, 26 from the Air Force, and 3 from the Army.

15. Mr Neff summarized goals accomplished for the base FY94 IRP program (Atch 10): a) 34 of the base IRP sites will be closed out; b) the permit modification process for Table 1 SWMUs will be completed for RCRA; c) an extensive FY94 program will be accomplished; and d) the TERC process will be initiated at HAFB.

16. Mr Neff asked the audience for questions or comments on the material covered.

TECHNICAL SESSION

17. Mr Neff gave a brief history and overview of the BX Service Station (Atch 11). In 1981, auditors discovered a discrepancy, between 100,000 and 150,000 gallons, in fuel inventories from the five underground tanks then supplying the BX Service Station. The tanks were discovered to be leaking. Various systems consisting of recovery trenches and wells recovered 48,000 gallons of the free-phase product from beneath the site. Virtually all of the product has been recovered. However, the fuel-contaminated soil containing petroleum hydrocarbons at an average concentration of 8,000 ppm has not been remediated. Four residences near the site have been closed until site remediation has been completed. The remedial action chosen for the site was soil vapor extraction. A 30-day Pilot Test, conducted on a small, highly-contaminated area of the site in July and August 1993, reduced the petroleum hydrocarbon content of the soil by 48% and the BTEX concentration by 86%. Design specifications for a full-scale soil vapor extraction system, consisting of several recovery trenches, venting wells, and confirmatory soil borings, were received 21 Jan 94. The full-scale system will be constructed this summer. Remediation is estimated to take four to seven months.

18. Mr Neff presented a status report of the rapid response action at the T-38 Test Cell (Atch 12). Originally, the investigation of the site was conducted in order to remediate an apparent 2,000 gallon release. However, the contractor encountered from 5 to 7 feet of free-phase product on the water table beneath the site in a 500 foot x 700 foot area. The investigation was then expanded to delineate the full extent of contamination beneath the site. There are estimated to be 1.7 million gallons of weathered JP-4 fuel beneath the site. The US Army Corps of Engineers initiated a rapid response contract to remediate the site. Enhanced Soil Vapor Extraction (SVE) was chosen as the most feasible alternative for removal of the free-floating product and remediation of the fuel-contaminated soils beneath the site. A 24-hour Pilot Test was conducted at the site in December 1993 in which 300 gallons of fuel were recovered from the water table. Ten additional wells will be installed at the site in February 1994. The operation and maintenance of the full-scale SVE system is currently funded. A Rapid Recovery (RR) system will be incorporated

into the full-scale system. All fuel recovered from the site will be burned through a flare system.

19. Mr Neff presented the background and current status of the Four Site PA/SI (Atch 13). Site SS-12, Fuel Line Spill Site #1, is located east of the 2700 housing area. In 1975, 2,000 gallons of fuel were spilled when the Standard Transpipe pipeline traversing the site ruptured from excessive pressure. A soil gas survey was conducted; six soil borings and three monitoring wells were installed at the site. Thirty-five ppm TPH was detected in one soil boring and 0.5 ppb benzene and toluene was detected in a ground-water sample near the pipeline. The results are still being reviewed for the site.

Site SD-27, Pad 9 Washrack, is located east of Taxiway F near Building 884. The washrack was used in the 1940's and 1950's for washing down aircraft that had flown through clouds of nuclear blast materials. The investigation conducted at the site detected no radiation above background levels. Total Petroleum Hydrocarbons at 3.5 ppm concentration was detected in one soil sample in the bottom of the nearby unlined pit which received residues from the washrack. Another soil sample, taken from the nearby abandoned transformer station, had 200 ppb PCBs. The site is recommended for closeout and no further action.

Site OT-35, Spent Solvent Disposal Site, consists of three small areas near the Primate Research lab used for disposing of solvents containing radioactive tracers in the 1950's. A soil gas survey detected low levels of chloroform in the soil. Soil borings taken at the site detected no radiation levels above background levels and no volatile organic compounds. The site is recommended for closeout and no further action.

Site LF-58, Incinerator Landfill, is located approximately 200 yards west of the base horse stables. The site was used for the disposal of unconventional rocket fuels from 1953 to 1960. A soil gas survey, two elect-romagnetic (EM) surveys, and soil borings were conducted at the site. Soil samples detected elevated levels of aniline, total petroleum hydrocarbons, and volatile organic compounds in the soils. As a result of the EM surveys, several deteriorated metal drums, 15 aluminum drums formerly containing white fuming nitric acid, and several areas of stained soils were found. This site will be further investigated as part of a multiple site RI later this year in order to determine the full nature and extent of contamination at the site.

20. Mr Neff then presented a brief history and status report of Site OT-03, Tetraethyl Lead Disposal Site (Atch 14). The site is a small petroleum hydrocarbon-contaminated site, approximately 5 feet x 5 feet x 10 feet, located just outside of the POL yard. Tank bottoms were buried at the site from 1955 to 1975. Soil borings taken at the site detected total petroleum hydrocarbons above the NMED 1,000 ppm standard and high levels of lead. The site was excavated last year and the contaminated soil was disposed of at the NuMex landfill. The site is recommended for closeout and no further action.

21. Mr Neff asked the audience for questions and comments and then turned the meeting over to Dr Fred Fisher.

22. Dr Fisher gave a brief history of major events from 1985 to present concerning the base sewage lagoons (Atch 15). Because of hazardous waste being discharged into the lagoons and base sewer system, the sewage lagoons were declared to be a RCRA Hazardous Waste Management Unit in 1985. In 1988, HAFB entered into a Federal Facilities Compliance Agreement which set in motion several other actions for the sewage lagoons: a) extensive groundwater monitoring of the sewage lagoons was initiated in 1989; b) 4,000 tons of PCB-contaminated sludge was removed from Lagoons A and B in 1990; and c) in 1991, HAFB applied through NMED for a Post-Closure Care Permit for the sewage lagoons. As a result of our progress, EPA Region VI removed HAFB from the significant non-compliance list in 1993.

23. Dr Fisher summarized the results from the groundwater assessment monitoring program for the sewage lagoons from 1991 to the present (Atch 16). Low levels of organochlorine pesticide and metals have been detected in the groundwater. The pesticide contamination results from past spraying and rinsing of equipment. The detected pesticides are no longer used on the base. New wells to determine the extent of horizontal migration of contaminants have been installed on BLM land. Vertical migration of contaminants is being monitored by the installation of deep pieziometers. The results from the new wells should allow HAFB to reduce the intensity of groundwater sampling in 1994.

24. Dr Fisher gave a summary of the remedial investigation and feasibility study conducted on the sewage lagoons in 1993 (Atch 17). The investigation consisted of: a) biota sampling of waterfowl, algae, and beetles conducted by the US Fish and Wildlife Service to detect contaminants in the food chain; b) a 100-acre geostatistical study to establish confidence limits of the data gathered; and c) human and ecological risk assessments. These results indicate the need for additional sampling in 1994. The extent of sampling is still much less than originally recommended by EPA.

25. Dr Fisher closed his presentation by providing the current status of the sewage lagoons (Atch 18). The new wastewater treatment plant, which will become operational in 1996, is in the 50% design stage. Additional sampling on the sewage lagoons will be performed in a continuation of the remedial investigation and feasibility study later this year. Extensive groundwater monitoring should conclude at that time. The base Post-Closure Care Permit will undergo a technical review later in FY95. There is also discussion with HQ ACC and Air Staff concerning amending the Federal Facilities Compliance Agreement for the sewage lagoons.

26. General Miller asked what is to be done with the lagoons when closure occurs. Dr Fisher replied that a major portion of the lagoons will be backfilled, but the future use of the land is uncertain, pending further study. Lagoon G, which will be receiving discharge from the new plant, will be left as a waterfowl habitat.

27. Dr Fisher was asked if water from the new wastewater treatment plant will be of high enough quality to be pumped over to the golf course for irrigation purposes. Dr Fisher replied that the treated water may still have a very high salt content due to infiltration into the sewer lines from the high groundwater table in the area. The base is gradually improving the sewer lines. Exactly what the quality of the effluent will be is unknown until the new plant is in operation.

28. Dr Fisher turned the meeting back over to Mr Neff. Mr Neff asked General Miller for his comments.

29. General Miller stated good progress has been made in the IRP program. He hoped no additional new sites will be discovered in new construction projects on the base. He closed the meeting by telling the audience that Mr Neff and other IRP personnel would be available for any additional questions or comments.

Randy W. Louvier

RANDY W. LOUVIER
Recorder

Attachments:
1. Distribution List
2. Meeting Agenda
3. IRP Program Overview
4. Status of 58 IRP Sites
5. RCRA Permit Modification
6. FY 94 IRP Program
7. FY94 RCRA Corrective Action Program
8. TERC Contract Status
9. AFIT Team Approach Class
10. Summary of IRP Program
11. BX Service Station
12. T-38 Test Cell RR
13. 4 Site PA/SI
14. TEL Disposal Site
15. HAFB Lagoons History
16. Groundwater Assessment Monitoring
17. 1993 RI/FS Study
18. Current Status of Lagoons

Approved as written:

JOHN F. MILLER, JR.
Brigadier General, USAF
Commander

Distribution List

Holloman Air Force Base:

49 FW/CC
49 FW/JA
49 FW/SE
49 OG/CC
49 LG/CC
49 SPTG/CC
49 MG/CC
49 BBSG/CC
49 OSS/OSSTA
49 CES/CEV
49 SPS/CC
49 CS/CC
4 SWS/CC
46 TG/CC
46 TG/SE
DRMO/YDM
USACE/CESWA-CO-HM
Army Air/STEWS-SS
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DynCorp/Radar Services
HSD DynCorp
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Mr Bob Barnett
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TECHNICAL REVIEW COMMITTEE

Agenda

IRP OVERVIEW

- IRP Process
- IRP Status
- RCRA Permit Modification
- FY94 Program
- TERC Status
- Air Force Institue of Technology (AFIT) Class

TECHNICAL SESSION

- BX Service Station Pilot Study
- T-38 Test Cell Rapid Response
- 4 Site Investigation
- Tetraethyl Lead (TEL) Disposal Site
- Sewage Lagoons

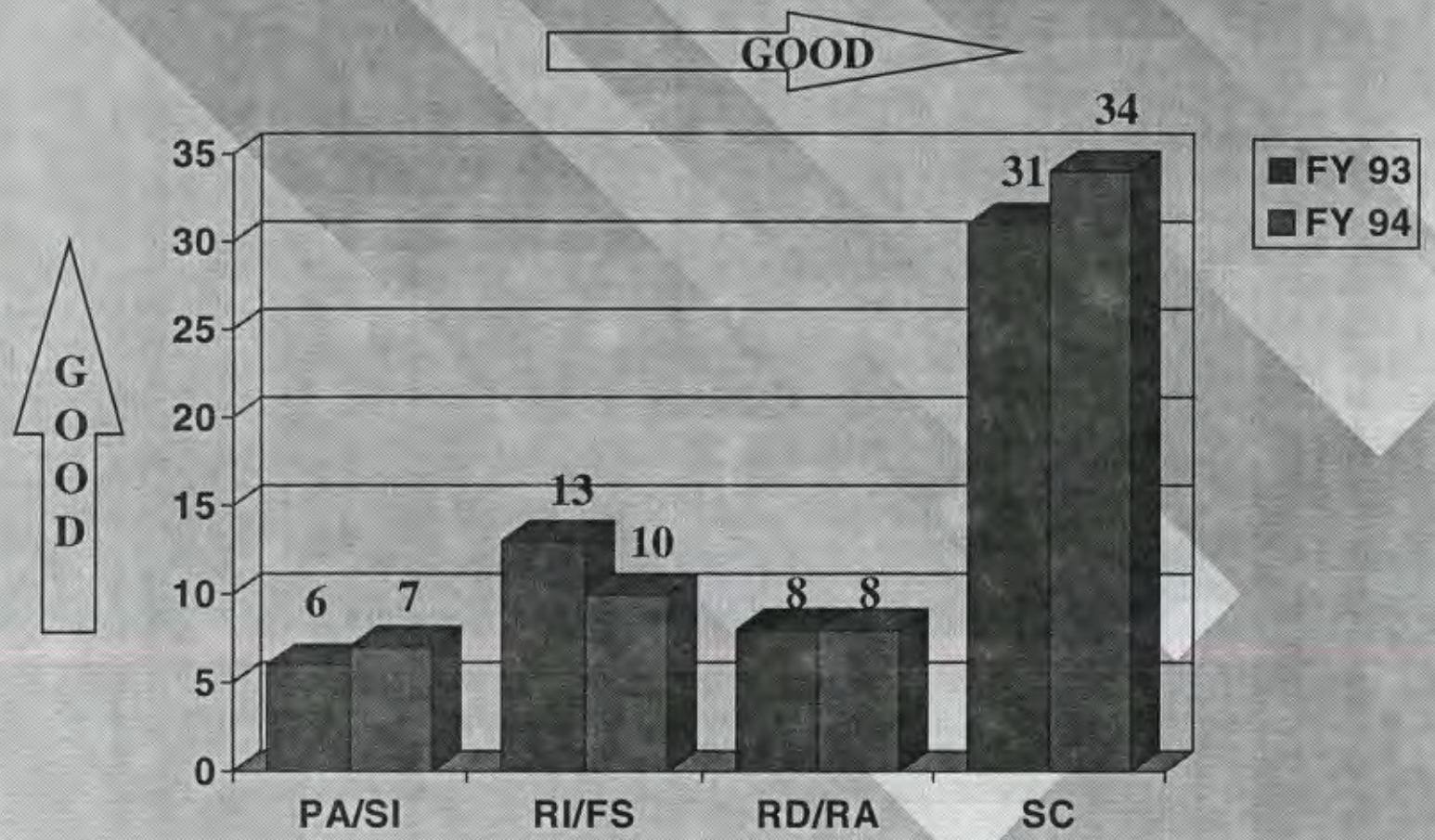
TECHNICAL REVIEW COMMITTEE

Installation Restoration Program

- Preliminary Assessment/Site Inspection (PA/SI)
- Remedial Investigation/Feasibility Study (RI/FS)
- Remedial Design/Remedial Action (RD/RA)
- Site Closeout/No Further Action (SC/NFA)

TECHNICAL REVIEW COMMITTEE

Status of 59 IRP Sites



Atch 4

TECHNICAL REVIEW COMMITTEE

RCRA Permit Modification

- 1st HSWA Permit Mod Request in Region 6
- 26 Aug 93 Public Meeting
- 18 Sites Removed From Permit
- Awaiting EPA Concurrence

TECHNICAL REVIEW COMMITTEE

FY 94 IRP Program

- PA/SI BBSG
- RA BX Service Station
- RI/FS Sewage Lagoons
- RA Refuse Collection Truck Washrack
- RA POL Spill Sites 1&2
- RD/RA TEL Disposal Site
- IRA Acid Trailer Burial Site
- LTM Multiple Sites
- RI Multiple Sites (Table 1)

TECHNICAL REVIEW COMMITTEE

FY94 RCRA Corrective Action Program

- CMS/CMI T-38 Test Cell
- RCRA Facility Investigation (RFI) Table 2
- RFI Workplans - Table 3
- RFI Table 3

TECHNICAL REVIEW COMMITTEE

Total Environmental Restoration Contract (TERC) Status

- HAFB - One of Three Active TERC Anchor Bases
- EBASCO Environmental - Won HAFB $150M TERC
- 2 Projects Awarded
  - LTM Multiple Sites
  - PA/SI BBSG

TECHNICAL REVIEW COMMITTEE

AFIT Team Approach Class

- Held 7-9 Dec at HAFB - First Outside AFIT
- Objective - Risk-Based Cleanup/Partnering
- Participants
  - 2 NMED
  - 5 EPA
  - 26 Air Force
  - 3 Army

TECHNICAL REVIEW COMMITTEE

Summary

- 34 IRP Sites Closed Out
- Permit Modification Process Completed for RCRA
- Extensive FY94 Program
- TERC Process Initiated at HAFB

TECHNICAL REVIEW COMMITTEE

BX Service Station

- Site History
- Status of Contamination
- Remedial Technology - Soil Vapor Extraction (SVE)
- 30 Day Pilot Study Results
- Design Criteria for Full Scale Remediation

TECHNICAL REVIEW COMMITTEE

T-38 Test Cell Rapid Response (RR)

- Estimated 1.7M Gal JP-4 Beneath Site
- Remedial Technology - Enhanced Vapor Extraction (EVE)
- 24 Hr Pilot Study Conducted in December
- 10 Additional EVE Wells To Be Installed In February
- Operation & Maintenance of System Currently Funded
- RR System Will Be Incorporated Into Full Scale System

TECHNICAL REVIEW COMMITTEE

4 Site PA/SI

- **Sites Investigated**
  - **SS-12 Fuel Line Spill Site #1**
  - **SD-27 Pad 9 Washrack**
  - **OT-35 Spent Solvent Disposal Site**
  - **LF-58 Incinerator/Landfill**
- **Site Histories/Locations**
- **Investigative Results**
- **Recommendations**

TECHNICAL REVIEW COMMITTEE

Tetraethyl Lead (TEL) Disposal Site

- **Small Petroleum Hydrocarbon Contaminated Site**
  - Apx 5 ft X 5 ft X 10 ft
- **Remedial Action - Excavation**
  - Contaminated Soil Disposed at NuMex Landfill
- **Site Closeout/Decision Document - Late FY94**

TECHNICAL REVIEW COMMITTEE

HAFB Lagoons History

- 1985 - RCRA Hazardous Waste Management Units
- 1988 - Federal Facilities Compliance Agreement
- 1989 - Groundwater Monitoring Initiated
- 1990 - Interim PCB Cleanup - 4000 Tons Sludge
- 1991 - Post-Closure Care Permit Application
- 1993 - Removed From EPA Significant Non-Complier List

TECHNICAL REVIEW COMMITTEE

HAFB Lagoons Groundwater Assessment Monitoring 1991-94

- Organochlorine Pesticides (Old Insecticides)
- Metals
- Propose to Return to Detection Monitoring in 1994

TECHNICAL REVIEW COMMITTEE

HAFB Lagoons
Remedial Investigation/Feasibility Study
1993-94

- **Biota Sampling**
  - **Complement USFWS water fowl samples**
  - **Endangered Species Act**
- **Geostatistical Study - Confidence Limits**
- **Risk Assessments - Human Health and Ecological**
- **Identified Need for Additional Sampling in 1994**

TECHNICAL REVIEW COMMITTEE

Current Status of Lagoons

- New Wastewater Treatment Plant
  - 50% Designed
  - Operational 1996
- Remedial Investigation/Feasibility Study 1993-94
- Groundwater Assessment Monitoring Concluding
- Post-Closure Care Permit Technical Review FY95
- Amend Federal Facilities Compliance Agreement