



CARSWELL/PLANT 4 RESTORATION ADVISORY BOARD

Fact Sheet #14
November 8, 2001

NAS FORT WORTH JOINT RESERVE BASE INSTALLATION RESTORATION PROGRAM

This is the 14th in a series of fact sheets focusing on the Installation Restoration Program (IRP) at the Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB). The NAS Fort Worth JRB, formerly Carswell Air Force Base (AFB), is in the process of planning and conducting activities for the identification, remediation, and closure of contaminated sites at the base.

The IRP is the Department of Defense's (DoD) primary mechanism for environmental response actions on U.S. Air Force installations. IRP activities are governed by provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and other applicable federal and state regulations. These activities are being conducted through the combined efforts of the Air Force Center for Environmental Excellence (AFCEE) and the Air Force Base Conversion Agency (AFBCA). Under provisions of RCRA, the Air Force identified 68 solid waste management units (SWMUs) and 19 areas of concern (AOC) at NAS Fort Worth JRB for further study and clean up, if necessary.

CARSWELL ON-BASE

RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 49 AND 50

SWMUs 49 and 50 are former aircraft washing areas 1 and 2, respectively. Because of the nature and location of these units, work on SWMU 49 is contingent on the findings of potential contamination at SWMU 50. Therefore, work plans were prepared for the sampling at SWMU 50 only. The Final Work Plan for SWMU 50 was submitted to AFCEE in September 2000, and the first round of field work was conducted at this location in December 2000. Initial results from the December 2000 sampling event were validated, and it was determined that further soil sampling was necessary at SWMU 50. This soil sampling was conducted in June 2001. In addition, a groundwater investigation was conducted in July to determine to what extent, if any, groundwater has been impacted. Monitoring wells were installed, and the first round of groundwater sampling was conducted in July 2001. The second round of groundwater sampling was conducted in September 2001, and the third round will be conducted this month. The results of the soil and groundwater investigation will determine if additional sampling is necessary or if SWMU 50 can be submitted for closure.

LIMITED RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 54 AND 55

The Final Work Plans to conduct a limited RCRA Facility Investigation (RFI) were completed in September 2000 for the Storm Water Interceptors (SWMU 54) and the East Gate Oil/Water Separator (SWMU 55).

Soil sampling was conducted for SWMUs 54 and 55 to determine if these units have released hazardous constituents to the environment. The first round of field work was conducted in December 2000. Based on the results from the first round, a second round of soil, sediment, and surface water sampling was necessary. The second round of sampling was completed in June 2001. Based on the results from this second round of sampling, a third round of soil, sediment, and surface water sampling is necessary. The purpose of this third round of sampling is to fully delineate and characterize contaminants of potential concern at the site before SWMUs 54 and 55 can be submitted for closure.

RCRA FACILITY INVESTIGATION OF LANDFILLS CONTINUES

RFIs continue at six former landfills, also referred to as SWMUs. These landfills include Landfill 7 (SWMU 17), Landfill 3 (SWMU 26), Landfill 1 (SWMU 28), Landfill 2 (SWMU 29), Landfill 9 (SWMU 30), and Landfill 6 (SWMU 62). The results of the RFIs will determine if a source of potential contamination exists and if the source has impacted the soil, groundwater, surface water, or sediments at or near each landfill. Work plans were prepared for the fourth phase of investigations at Landfills 1, 2, 3, 6, 7, and 9, and field work for the fourth phase was completed in February 2001. Additional sampling was conducted in June 2001. Based on evaluation of the data, interim remedial actions, also referred to as "hot spot removals," were necessary prior to the completion of the RFI for all but one landfill (Landfill 3). These hot spot removals were conducted last month. A Draft RFI Report will be submitted early next year to AFCEE for review.

WASTE ACCUMULATION AREA RCRA FACILITY INVESTIGATION

An RFI of 16 Waste Accumulation Areas (WAA) was completed in June 1999. Based on the results of the initial investigation, an RFI report recommending regulatory closure was prepared for 7 of the 16 WAAs and submitted to the regulators in July 2000. Closure of these seven WAAs was approved by the Texas Natural Resource Conservation Commission (TNRCC) in November 2000. A Phase II soil and groundwater investigation was performed on the remaining nine WAAs in May 2000. Based on the results of the Phase II investigation, a Final RFI Report recommending site closure was submitted to TNRCC for four additional sites in March 2001. The TNRCC granted closure of these four sites in June 2001. Additional investigations and/or remedial actions will be required at the remaining five WAAs. Work plans for additional soil and groundwater sampling were submitted to AFCEE in January 2001, and the additional sampling was conducted at the remaining five sites in June 2001. Based on the results of the June 2001 sampling event, hot spot removals were necessary at three WAAs and were conducted last month. An RFI report will be prepared after the results from the hot spot removals are obtained.

RCRA FACILITY INVESTIGATION OF SOLID WASTE MANAGEMENT UNITS 19, 20, 21, AND AREA OF CONCERN 19

The first round of field sampling activities was completed in May 2000 for RCRA Facility Investigations of the following areas: former Fire Training Area No. 2 (SWMU 19), former aboveground waste fuel storage tank (SWMU 20), former underground storage tank (SWMU 21), and former fire training area (AOC 19).

A geophysical survey was completed at SWMUs 19, 20, and 21 and AOC 19 in February 2001. Monitoring wells were installed at these sites in February, and groundwater sampling was conducted in February, April, and June. Based on the results of this survey, several areas of buried metal were excavated, and additional soil sampling was conducted in August 2001. The anomalies were caused by buried scrap metal such as steel pipes, metal plates, wire, and road construction debris. After the August 2001 soil data is validated, the Draft Site Investigation (SI) Report for AOC 19 will be prepared. Another round of groundwater sampling at SWMU 19 was conducted in October 2001. Potential future field work at SWMU 19 will be determined once the soil and October 2001 groundwater data are validated and reviewed.

UNDERGROUND STORAGE TANK PROGRAM

Additional sampling of groundwater at AOC 1, the Base Service/Gas Station, and the delineation of contaminants further downgradient of AOC 1 were requested by the TNRCC in January 2000. The delineation consisted of the installation and sampling of three downgradient off-base wells and the continued groundwater monitoring of existing on-base wells. Three off-base wells were installed and sampled in May 2000, and the first semi-annual groundwater sampling at seven existing on-base wells was performed in April 2000. A Final Annual Groundwater Monitoring Report for 2000 was submitted to TNRCC in July 2001. The most recent semi-annual sampling event occurred in July 2001. Surface water samples were collected as part of the sampling protocol. All surface water sample results were reported below detection limits. Aquifer tests were performed during August 2001 as part of the interim remedial system design. The interim remedial system design is approximately 90 percent complete and will be incorporated into a Corrective Action Plan for AOC 1.

The TNRCC requested a historical review in the form of a Site Assessment Report for SWMU 68 (the Petroleum, Oil, and Lubricants Tank Farm) and AOC 7 (the former Base Refueling Area). The final Site Assessment Report for SWMU 68 and AOC 7 was submitted to the TNRCC in November 2000. Product removal activities at four wells associated with SWMU 68 and AOC 7 have been discontinued. Semi-annual groundwater sampling to monitor the stability of groundwater contaminants began in April 2000 with the most recent semi-annual sampling taking place in April 2001. The Final Annual Groundwater Monitoring Report and a Site Closure Request form was submitted to TNRCC in May 2001.

The Final 1999 Annual Groundwater Sampling Report for AOC 4, the Fuel Hydrant System, was submitted to the TNRCC in July 2000, fulfilling the TNRCC reporting requirements for a site undergoing a long-term monitoring program. This report presents four quarters of groundwater sampling that was performed in 1999. For the year 2000, groundwater monitoring at this site was reduced to a semi-annual (April and October) sampling schedule. A Final 2000 Annual Groundwater Monitoring Report and a Site Closure Request form was submitted to TNRCC in March 2001. TNRCC approved closure of AOC 4 in a letter dated October 5, 2001.

CORRECTIVE MEASURES CONDUCTED AT AREA OF CONCERN 13

Field work for the removal and replacement of the oil/water separator (OWS) system associated with Building 1145, the Auto Hobby Shop, was performed in May 2000. This OWS system is referred to as AOC 13. The removal activities consisted of the over excavation of soils around the system, the removal and disposal of one OWS and one underground storage tank (UST), and the excavation of soils beneath and around the system that appeared to be affected as the result of the system. Confirmation soil sampling was conducted at the limits of the excavation along the walls of the pit. A review of the analytical data from the soil sampling was performed, and it was determined that further investigation was necessary at this site. The last round of sampling was conducted in December 2000. An RFI report was prepared and submitted to TNRCC

in June 2001. TNRCC approved closure of AOC 13 in a letter dated October 4, 2001, under Risk Reduction Standard (RRS) 2.

RCRA FACILITY INVESTIGATION OF OIL/WATER SEPARATORS

An RFI is being conducted on 21 OWS sites at NAS Fort Worth JRB. Based on the results of the initial investigation, one OWS (SWMU 7) received closure in July 2000 based on evidence that a release of hazardous constituents to the environment has not occurred from this unit. An RFI Report for five additional OWS sites at Buildings 1101, 1320, 1423, 1656, and 4160 was submitted to the regulators for closure, also based on evidence of no release, in December 2000. The TNRCC granted No Further Action status for these five sites in a letter dated March 23, 2001.

Investigations will continue at the remaining 15 sites before closure can be requested. Phase III Work Plans for 14 OWS sites were submitted in November 2000, and the field work was completed soon thereafter. A Final RFI report requesting closure for 13 of these sites at Buildings 1015, 1027, 1060, 1064, 1190, 1191, 1194, 1414, 1602, 1643, 3358, 4146, and 4210 was submitted to the TNRCC for review in May 2001. An addendum report is being prepared for 10 of these sites based on comments received from TNRCC and this addendum will be submitted to TNRCC this month. The one remaining OWS site (Building 1655) required additional investigation that was conducted in June 2001. The OWS at Building 1145 (AOC 13) has been removed and will be closed under a separate header (see "Corrective Measures Conducted at Area of Concern 13" above).

ONLINE DOCUMENTS FOR CARSWELL

All documents published in the Carswell Administrative Record/Information Repository can be obtained from the web site hosted by AFCEE for the Carswell AFB Restoration Advisory Board. The address is <http://www.afcee.brooks.af.mil/er/carswell/nasfw/rab/rab.htm>.

CARSWELL OFF-BASE

SANITARY SEWER SYSTEM RFI

Results from Phase II soil and groundwater sampling in March 2000 have verified that most sections of the Sanitary Sewer may be recommended for closure. However, a Phase III RFI is required to complete confirmation and/or delineation of some contaminants at specific locations along the NAS Sanitary Sewer Lines only. The Phase III RFI began on 14 February 2001, and the sampling and analysis results indicate certain specific locations will require some hot spot removals. Programming action is under way to approve the removal of the hot spots, so the remediation actions can commence shortly. The hot spots removals are scheduled to commence in November 2001.

OFF-SITE WEAPON STORAGE AREA

All field work has been completed, and areas of previous excavation have been filled and regraded. The Draft Final Closure Report for Removal of Hazardous/Non Hazardous Wastes was submitted to the regulators in

September 2000. TNRCC/U.S. Environmental Protection Agency (EPA) approval for closure under Risk Reduction Standard 2 was received on 5 February 2001. The Deed Certification also has been completed for the entire Weapon Storage Area (WSA) site. Final closure of three underground storage tanks, which were removed under the TNRCC Petroleum Storage Tank Division, should be approved by TNRCC this month.

AEROSPACE MUSEUM SITE

The results of the sampling and analysis for the Aerospace Museum Site were briefed to the regulatory agencies at the Base Realignment and Closure (BRAC) Cleanup Team Meeting held on 10 May 2001. The area has met regulatory RRS 2 except for one location. Hot spot removal has been conducted in the one area to bring it within the RRS 2 criteria, and a report has been submitted to the regulatory agencies for their approval of closure under RRS 2.

PROPERTY TRANSFERS

- Property transfer for the Kings Branch Housing Area was completed in October 2000.
- Property transfer for the Federal Bureau of Prisons was completed on 15 December 2000.
- Property transfer for the Stables was completed 1 August 2001.
- The Finding of Suitability to Transfer (FOST) for the WSA is being developed.
- The Finding of Suitability to Lease (FOSL) for Expansion of the Golf Course to include Landfill 6 was signed by AFBCA on 5 October 2001.

RCRA PERMIT RENEWAL UPDATE

The RCRA permit for Carswell AFB, Texas, was signed by the TNRCC on 2 May 1990 and became effective 7 February 1991. It is required to be updated and renewed every 10 years. The permit renewal application was submitted to the regulatory agency on 1 February 2001, and the permit approval is projected to be approved by November 2002. The permit renewal with amendment is an institutional control to ensure Corrective Actions continue until all of the U.S. Air Force sites located both on NASFW and on the former Carswell AFB property off-base, are closed. Currently, only sites located on NASFW remain open.

TETRACHLOROETHENE (PCE) SITE

Some low level tetrachloroethene (PCE) soil gas contamination was previously detected at some locations in the soil in the vicinity of the Underground Petroleum Fuel Line, which is located on the Golf Course and runs parallel to Humphrey Drive. Sampling was conducted in June 2001, and no contamination was detected.

GLOSSARY OF TERMS

Area of Concern (AOC) – an area identified as a potential environmental concern.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Also known as “Superfund,” this law was enacted in 1980 and requires the identification, investigation, and clean up of contaminated sites.

Oil/Water Separator (OWS) – an oil water separator is used to separate the oil from waste water. Oil water separators are used commonly with service stations, maintenance shops, and surface water drainage systems where surface water run off may collect oil drippings or small spills.

PCE (Tetrachloroethene) - an industrial solvent used to dissolve or disperse another substance such as oil; often used in degreasing metal parts.

Resource Conservation and Recovery Act (RCRA) – a law enacted to identify active hazardous waste generating facilities, investigate past site contamination, and initiate cleanup and pollution prevention measures.

RCRA Facility Investigation (RFI) – an investigation of soil and groundwater contamination resulting from a release of contaminants from a storage unit regulated under RCRA.

Risk Reduction Standard (RRS) – a risk-based cleanup standard for soil and groundwater defined by the Texas Natural Resource Conservation Commission.

Site Investigation (SI) – a preliminary environmental study of a site possibly contaminated by an underground storage tank used for storing petroleum products such as gasoline or aviation fuels.

Solid Waste Management Unit (SWMU) – a defined area used for storage or disposal of hazardous wastes as defined by RCRA.

Trichloroethene (TCE) – an industrial solvent used to dissolve or disperse another substance such as oil; often used in degreasing metal parts.

Underground Storage Tank (UST) – a tank installed beneath the ground surface used for storing liquids such as gasoline, aviation fuels, and waste oils.

Waste Accumulation Area (WAA) – a specified area used for temporary storage of hazardous wastes.

FOR MORE INFORMATION

If you would like more information, please see our web site at <http://www.afcee.brooks.af.mil/er/carswell/nasfw/rab/rab.htm> or contact the following individuals:

***Carswell On-Base:** Michael Dodyk, HQ AFCEE, at (817) 782-7167 or via e-mail at mike.dodyk@carswell.af.mil or Don Ficklen, HQ AFCEE, at (210) 536-5290 or via e-mail at holmes.ficklen@brooks.af.mil*

***AFP 4:** George Walters, the Aeronautical Systems Center, Wright-Patterson Air Force Base, OH, at (800) 982-7248 Ext. 416 or via e-mail at george.walters@wpafb.af.mil*

***Carswell Off-Base:** Charles Pringle, AFCEE ERB, at (210) 536-4477 or via e-mail at charles.pringle@brooks.af.mil*