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LETTER REGARDING REGULATORY REVIEW AND CONDITIONAL APPROVAL OF RCRA
FACILITY INVESTIGATION WORK PLAN AT SOLID WASTE MANAGEMENT UNIT 62 NAS
FORT WORTH TX
5/4/1995
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION



**NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 253

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Pam Reed, *Commissioner*
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Dan Pearson, *Executive Director*



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File:
A.F.

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TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

May 4, 1995

Mr. Ohlen Long
Site Manager
Headquarters, Air Force Base Disposal Agency
Location H, Bldg 1215
Carswell Air Force Base, Texas 76127-5000

RE: Carswell Air Force Base
TNRCC Solid Waste Registration No. 65004
EPA ID NO. TX0571924042
Review of RCRA Facility Investigation (RFI) Work Plan for
Solid Waste Management Unit (SWMU) No. 62.

RFI Workplan Approved with Modifications

Dear Mr. Long:

The Texas Natural Resource Conservation Commission's (TNRCC) Corrective Action Staff has completed its review of the RFI Work Plan for SWMU 62 (Plan), also known as Landfill 6. The Plan was submitted to the TNRCC in behalf of the Air Force Base Conversion Agency (AFBCA) on August 22, 1994, in response to Provision VIII of RCRA Permit Number HW-50289, issued to Carswell AFB on February 7, 1991. Our response to the Plan also takes into account subsequent conversations with Frank Grey, Chief Environmental Engineer with the Air Force Base Conversion Agency, and Marshall Knight with the Southern Div. Navy Facility Engineering Command.

The TNRCC Corrective Action staff requests that the Work Plan be modified to address the following concerns:

1. Page 14, Section 3.1.2.2 - Uppermost Water-Bearing Zone Characteristics

According to the boring logs in Appendix B, it appears that boring LF06-5 was also located inside the boundaries of the former landfill along with borings LF06-3 and LF06-4. If that is the case, please indicate this fact on page 14 of the Work Plan.

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2. Page 15, Section 3.1.2.3. - Surface Water

No surface water samples are proposed for this Work Plan in spite of the evidence that groundwater is discharging to Farmers Branch. If ground water contaminated by SWMU 62 appears to reach Farmers Branch, a sampling program for surface water must be initiated that will determine the impact of the discharges.

3. Page 19, Section 3.3 - Release Characterization

Although the suspected contaminant sources are buried, exposure to organic soil vapors and direct contact with the upper two feet of soil must be accounted for during closure, in accordance with the Risk Reduction Rules, 30 Texas Administrative (TAC) Code §335, Subchapter S. This requires that contamination in the upper two feet of soil be sampled and analyzed.

4. Pages 20 and 21, Figure 11 - Soil Borings

Proposed soil boring SB-4 appears adequately placed to investigate the mound at the southwest corner of Landfill 6. It is suggested, however, that the placement of the remaining three borings (SB-1, SB-2, and SB-3) not be fixed until results from the magnetometer survey, previous sampling results, and any available information resulting from the Navy's proposed investigation immediately east of the Landfill 6 area are examined. The final boring locations need not be approved in advance by the TNRCC; however, the locations and reasons for their positions must be included in the resulting RFI Report. Additional borings will be necessary to fully characterize the extent of any waste/contaminants beyond the boundary of Landfill 6.

The TNRCC Corrective Action staff is not aware of any attempt to determine if the subsurface topography of the aquitard underlying the upper aquifer alluvium exhibits any control on the TCE plume migration. If any groundwater constituents more dense than water are suspected from SWMU 62, it would be very helpful to establish the elevation of this horizon in all borings and monitor wells.

5. Page 22 - Soil Samples

Page 22 indicates that volatile organic samples will be collected as discrete portions of the soil core while semi-volatile organics will be analyzed from composite samples. Please analyze all constituents from discrete samples.

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6. Page 22 - Soil Samples

The groundwater samples from uncased boreholes are of limited value due to uncertain hydrostratigraphic correlation and, therefore, may only be used for screening purposes. Conclusive groundwater sampling results must be obtained from properly completed monitor wells.

7. Page 23 - Waste Management

Investigative derived waste (IDW) and remediation derived waste (RDW) that contain hazardous constituents at levels equal to or less than Standard 2 levels (30 TAC §335.559) may be returned to the site from which they came. This policy is consistent with the EPA's "Contained In" policy, which allows states to determine when contaminated media are no longer hazardous waste, based upon risk based criteria. This policy does not apply to IDW/RDW which contain hazardous waste in excess of Standard 2 levels. IDW/RDW disposed off-site must be managed in accordance with the Work Plan's proposal.

8. Page 23 - Cement Grout

Please add 5% bentonite to the cement used to fill abandoned boreholes.

9. Page 23 and Figure 11 - Monitor Wells

The TNRC requests that monitor well MW-5 be moved to a location outside the northeast corner of Landfill 6 just north of Building 1025, approximately 200 feet north of MW-4. The TNRC believes that groundwater directly associated with the landfill is of more interest at this time than the far northeast corner of SWMU 62. In addition, Figure 10 indicates that the TCE plume may be moving in that direction, possibly due to gravity flow on top of the underlying aquitard.

10. Page 27 - Sample Containers

Organic samples must be held in glass containers. Inorganic (metal) samples must be held in plastic containers.

11. Page 28 - Analytes

The Work Plan recommends that the RI analyze for a subset of Appendix IX constituents (Work Plan Appendix D), which can then be expanded as warrants. Please reverse the procedure so that the investigation analyzes for the full list of Appendix IX constituents first. An abbreviated list of analytes can be assembled from this information.

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The Work Plan also states that the proposed list of analytes provided in Appendix D represent the range of wastes historically encountered at active military installations. In order for the TNRCC to be more responsive to the DoD's restoration program, we request any information you may have which documents the use of a limited number of analytes on military bases.

Groundwater samples for metal analytes generally should not be field filtered prior to preservation when the objective of sampling is detection of a release. As an alternative for highly turbid samples, groundwater can be filtered through a 5.0 micron filter which will eliminate TSS resulting from the sampling event, but retain naturally occurring colloidal particles that may transport contamination. If a well continues to produce highly turbid samples, then the well construction and sampling methodology should be re-evaluated and corrected so as to minimize turbidity.

12. Page 28 - Laboratory Tests

Please include a detailed description of the laboratory test conducted to determine effective porosity and permeability in the RI Report.

13. Pages 29 and 30 - Section 5.0 QA/QC Procedures

Please provide detailed Quality Assurance/Quality Control (QA/QC) procedures for decontamination, sample preservation, sample containers, holding times, sampling frequency, analytical methods, etc. Generally, a detailed Sampling and Analysis Plan (SAP) with QA/QC should accompany each sampling work plan or a pre-approved SAP should be referenced in each work plan. The SAP should provide enough detail so that a sampler with adequate technical background can read the SAP and conduct a successful event from start to finish for the specific RI.

14. Page 30 - Equipment Blanks

Equipment blanks shall be taken at a frequency of 1 per 20 samples with a minimum 1 blank per sampling event.

15. Page 30 - Analytical Data

In addition to the proposed data summaries, please include all analytical data that has been qualified and flagged. All contaminant concentrations below the reporting limit (typically the quantitation limit) should be reported as a specific uncensored value, whenever possible. Although these

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values are not necessarily quantifiable, they estimate the existing contaminant concentrations better than the more arbitrary values (such as $\frac{1}{2}$ the reporting limit) often suggested for risk assessment calculations. The reporting limit should be the calculated Sample Quantitation Limit (SQL), rather than a Practical Quantitation Limit (PQL).

16. The Air Force's Plan proposes to expand the original limits of SWMU 62 beyond the boundaries of Landfill 6 to include the entire area indicated on Figure 11 within the SWMU. The expansion was designed to incorporate suspected dumping areas outside the Landfill 6. During subsequent discussions between Mr. Geoffrey Meyer, TNRCC Corrective Action; Mr. Marshall Knight, Southern Division, Naval Facilities; and Mr. Frank Grey, AFBCA, the Navy expressed its desire to quickly build facilities east of Landfill 6, within the expanded SWMU. Although the Navy now owns the base, the Air Force currently retains responsibility for any environmental clean up. Air Force regulations disallows any construction within a SWMU prior to closure and/or remediation of the SWMU. This regulation, therefore, precludes the Navy from construction on the SWMU prior to its remediation and/or closure.

In order to accommodate the Air Force's need to remediate/close SWMU 62 and the Navy's desire to build east of Landfill 6, it was agreed, during the above mentioned conversation, that the Navy would target the area immediately east of Landfill 6 for special investigation. If no waste and/or contamination were discovered during the investigation, then the area could be excluded from the SWMU and the Navy would be free to construct on the site. The Navy's investigation would reportedly include a geophysical survey and a series of soil borings installed outside the eastern fenced boundary of Landfill 6. Since the Navy has not submitted a written work plan for review and approval, it is hoped that the investigation will be sufficient to fully characterize the limits of contamination east of the landfill fence.

In addition, it is suggested that sufficient soil borings along the eastern fence boundary of Landfill 6 be converted to long-term monitor wells, assuming that the soil contamination and SWMU boundary do not extend beyond this point. Monitor wells are typically spaced approximately 200 feet apart along SWMU boundaries. The TNRCC understands that groundwater monitoring for constituents released from SWMU 62 will be problematic due to possible interference from the TCE plume that extends beneath the SWMU from Air Force Plant. However,

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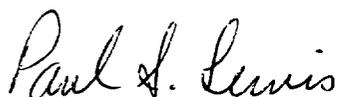
relative increases of constituents suspected in the SWMU, particularly hydraulic fluid and BETX, may be detectable over time.

17. Please submit a Health and Safety Plan for this investigation.

This letter constitutes approval of the Work Plan for SWMU 62 on the condition that the above mentioned concerns are addressed to the satisfaction of the TNRCC and that those concerns are incorporated into the RFI field activities and report. Carswell Air Force Base is directed to begin the RFI/Corrective Action without delay with a minimum 5 days notice to the TNRCC Region 4 Office prior to the initiation of field activities. The Remedial Investigation Report and any intermediate versions of the RI Work Plan shall be sent to the TNRCC in triplicate. The signed original and one copy shall be sent to the TNRCC central office in Austin, Texas. The third copy shall be sent to the TNRCC Region 4 office in Duncanville, Texas. Please provide an additional copy to the EPA Regional 6 Office.

If you have any questions or require further information concerning this matter please contact Mr. Geoffrey Meyer of my staff at (512) 239-2577.

Sincerely,



Paul Lewis, Manager
Corrective Action Section
Industrial and Hazardous Waste Division

PL:gm/gm

cc: David Neleigh, EPA Region 6
Don C. Eubank, TNRCC Region 4
Charles Mauk, TNRCC Permits
Tennie Larson, I & HW (CA 150)

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