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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

July 28, 1994

Mr. T.A. Ladd, Director
Environment and Safety
Environmental Services Division
U.S. Army White Sands Missile Range
White Sands Missile Range, New Mexico 88002

**RE: Comprehensive Groundwater Monitoring Evaluations at
Temperature Test Facility and HELSTF Cleaning Facility**

Dear Mr. Ladd:

The Hazardous and Radioactive Materials Bureau (HRMB) would like to thank personnel from White Sands Missile Range (WSMR) whom assisted and cooperated with HRMB during the July 11-14, 1994 Comprehensive Groundwater Monitoring Evaluations (CMEs) conducted at the Temperature Test Facility (TTF) and HELSTF Cleaning Facility. HRMB concluded from these CMEs that there were no significant groundwater monitoring violations at either the TTF or HELSTF Cleaning Facility. Comments and suggestions regarding HRMB's evaluations during these CMEs are enclosed with this letter as Attachment A for the HELSTF Cleaning Facility and Attachment B for the TTF.

HRMB will provide WSMR with a copy of the analytical results for groundwater split samples after all the data have been received from HRMB's analytical laboratory. Please transmit to HRMB as soon as possible a complete copy of WSMR's validated analytical results of split samples acquired during the CMEs.

If there any questions, please contact me at (505) 827-4313.

Sincerely,

Ronald A. Kern, RCRA Technical Compliance Program Manager
Hazardous and Radioactive Materials Bureau

Enclosures

cc: (with attachments)
Hector Magallanes, WSMR

July 28, 1994

ATTACHMENT A

The following items were noted during the Comprehensive Groundwater Monitoring Evaluation (CME) conducted at the HELSTF Cleaning Facility.

1. The checklists provided to the facility by HRMB were not completed at the time HRMB arrived at the facility for the entry interview. Arrangements were made for WSMR to provide the necessary information or to reference where the information exists currently and provide these relevant documents. This information will be transmitted to HRMB within the next couple of weeks.
2. Water level elevations were requested to be acquired by the facility within an eight (8) hour period at all pertinent RCRA monitoring wells to determine more precisely the direction of groundwater flow within the screened intervals of the wells.
3. It was decided during the exit interview that the facility will request a meeting with HRMB and the Defense-State Memorandum of Agreement (DSMOA) group to discuss coordination between DSMOA and RCRA concerns at HELSTF. Interim measures to recover diesel free product, released from a Solid Waste Management Unit (SWMU) and collocated with hazardous waste released from the HELSTF Cleaning Facility, appear to have been approved by the DSMOA group.
4. Advanced Sciences, Inc., a remediation contractor to the facility, expressed an interest in using RCRA monitoring wells at the HELSTF Cleaning Facility for recovery of diesel free product. It was advised at the exit interview that the four RCRA wells should generally be maintained as such to address concerns of the groundwater monitoring program. WSMR assured HRMB that corrective action plans for recovery of diesel free product, commingled with hazardous waste, would be transmitted to HRMB to ensure that RCRA concerns were being addressed properly.
5. Prior to the first sampling event at monitoring well CFW-4, the facility had planned to sample for dissolved metals versus total metals. HRMB advised the facility that the drinking water standards are based on unfiltered samples and that total metals should be analyzed to satisfy the Sampling and Analysis Plan (SAP). Although not specified within the SAP, facility must collect non-filtered groundwater samples for total metals analysis. WSMR may request a modification to the SAP to specify more clearly within the SAP the requirement for non-filtered metals samples.
6. During the second day of the CME, HRMB noted that sampling and personal protective equipment (Tyvex, gloves, kim-wipes,

July 28, 1994

etc.), were being disposed of in a solid waste (non-hazardous) dumpster. The disposal of potential hazardous waste in a solid waste container was noted and brought to the attention of WSMR. The observed refuse was subsequently retrieved from the dumpster by the facility and placed in a labeled hazardous waste container. The facility stated that the waste will remain in the container until results from analysis of the samples are known, at which time the appropriate action for disposition will be taken.

7. It was discussed by WSMR during the exit interview that total organic carbon (TOC) and total organic halogens (TOX) be eliminated from the SAP. These two parameters are generally required during detection monitoring at a RCRA site. At the HELSTF Cleaning Facility, it has been determined from previous analytical results that a release has occurred and that the facility is in the initial phases of assessment. The indicator parameters would not benefit the assessment of the unit, and it might be appropriate for WSMR to propose a modification of the SAP. The facility will send a letter stating the proposed modification to the SAP.

July 28, 1994

ATTACHMENT B

The following items were noted during the White Sands Missile Range - Temperature Test Facility 1994 Comprehensive Groundwater Monitoring Evaluation.

1. Although the pump flow rate was probably less than the recommended 100 milliliters/minute, because it was not a continuous flow the effective flow rate to fill volatile sample bottles was probably greater than 100 milliliters/minute. Therefore, there was possibly turbulence causing out-gassing of volatiles during sample collection.
2. A different pumping system was suggested because of the length of time it takes to purge the monitoring wells using the current dedicated bladder pumps.
3. Although the top of the casing from which elevations were measured were surveyed, there was no notch or paint mark placed on the casing to ensure measurements were taken at the exact same place each time when measuring depth.
4. The information questionnaires to be completed by the facility were not completed by the time HRMB arrived at WSMR. Arrangements were made for facility representatives to provide required information or to reference where the information could be found and provide these relevant documents. This information will be sent to HRMB via mail within the next couple of weeks.
5. It was suggested that potentiometric surface contour maps be provided to enable determination of proper location of monitoring wells (upgradient/downgradient).
6. During the exit interview, a discussion ensued about using the compliance monitoring wells for interim measures recovery wells. This was discouraged because the facility is currently attempting to determine background water quality to ultimately determine a statistically significant increase (or decrease in pH) in parameters in the future.
7. Although a thorough office evaluation of the facility has not been completed, it appears that because methylene chloride has been detected previously in soil samples at a depth of at least 200 feet (groundwater is at a depth of approximately 200 feet), that contamination of groundwater is imminent. The facility recognizes this and is implementing a corrective action (HSWA) for the vadose zone. It is not clear what regulatory corrective action (HSWA or RCRA) will be implemented if groundwater is impacted because there does not appear to be a corrective action portion in the current Post-Closure Care Permit for the TTF.