



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI

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DALLAS, TEXAS 75202

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HAZARDOUS WASTE SECTION



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Mr. Boyd Hamilton, Program Manager
Hazardous Waste Section
Groundwater and Hazardous Waste Bureau
Environmental Improvement Division
New Mexico Health and Environment Department
P.O. Box 968
Santa Fe, New Mexico 87504-0968

Re: U.S. Cannon Air Force Base, Clovis, New Mexico
Comprehensive Ground-Water Evaluation (CME)
EPA I.D. No. NM7572124454

Dear Mr. Hamilton:

Enclosed please find a copy of the inspection report completed by EPA Region 6 staff during the EPA-lead CME inspection conducted at Cannon AFB on October 25-26, 1988. Region 6 staff noted the following possible violations (to include technical concerns and referenced possible permit violations), and are hereby forwarding the report for your review.

Regulatory Deficiencies

- 1) Monitoring wells A, B, C, D and I monitor Landfill 5, Cell 3 which received methyl ethyl ketone, toluene, methyl isobutyl ketone and xylene. These constituents are light, non-aqueous phase liquids and tend to float or travel along the top of the water surface. Screen intervals and depth to ground-water are as follows:

WELL ID	SCREENED INTERVAL	DEPTH TO WATER
MW-A	328' - 343'	263.25'
MW-B	347.3' - 362.3'	267.4'
MW-C	347' - 362'	269.5'
MW-D	341.75' - 356.75'	263'
MW-I	273.3' - 293.3'	267.25'

If a release of these constituents occurred, the monitoring wells would not be able to detect the contaminants.

°At least three monitoring wells must be installed hydraulically down-gradient at the limit of the waste management area and must be screened at depths that ensure that they will immediately detect any statistically significant amounts of hazardous waste or constituents that migrate from the waste management area to the uppermost aquifer.

2) The Sampling and Analysis Plan fails to adequately address procedures and techniques for sample collection, sample preservation and shipment, analytical procedures, and chain-of-custody controls. The Sampling and Analysis Plan should address the following inadequacies:

- a) samples for organic analyses were collected in polypropylene containers;
- b) Total Organic Carbon (TOC) analyses were not preserved with acid;
- c) sample labels and chain-of-custody seals were not prepared at the time of sample collection and affixed to the containers to assure proper chain-of-custody; and
- d) the chain-of-custody record was not prepared and inserted with the sample containers.

°Initial background concentrations or values of chloride, iron, manganese, phenols, sodium and sulfate must be established for ground-water quality. Indicator parameters for ground-water contamination include: pH, Specific Conductance, Total Organic Carbon and Total Organic Halogen. This sampling must be done quarterly for one year. At least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from up-gradient wells during the first year. After the first year, all monitoring wells must be sampled at least annually and analyzed for parameters used as indicators of ground-water contamination, samples must be obtained and analyzed at least semi-annually.

40 CFR §265.92(b)(c)/HWMR-3 §206C.1.c.(2)(3) Class I and II

Technical Deficiencies

- 1) During the sampling of ground-water monitoring wells B, I and J, the water purged from the wells was allowed to pour on to the ground. Purge water from possibly contaminated wells should be handled appropriately by drumming the purged water and then screening it with a photoionization or flame ionization device.
- 2) Since the purged water was allowed to flow on to the ground, no procedure was available for calculating five well volumes of purge water as stated in the Sampling and Analysis Plan.
- 3) During the CME inspection, it was observed that the water depth probe was placed in contact with the ground on several occasions.
- 4) Portable generators were used to power the well pumps. The generators were located adjacent to the wellhead, possibly contaminating the ground-water samples with organic vapors exhausted from the generators.
- 5) Tap, deionized or distilled water should be used to clean the water depth probe after measuring the depth to water in a well.
- 6) During the inspection, it was noted that unsealed samples were placed in a refrigerator with food and soft drinks.

- 7) Field notes or logs were not maintained about care and maintenance of sampling equipment.
- 8) Sampling personnel failed to wear protective clothing such as gloves, coveralls, rubber boots or booties, and splash protective glasses or goggles. Also, a photoionization or flame ionization device should be used when the sampling team opens the well to begin purging the well.
- 9) Ground-water monitoring wells I and J did not have identification on them until the sampling team marked them with an indelible pen during the CME inspection. These wells should have identifications painted on the casing.
- 10) Water samples collected from ground-water monitoring well J contained sand, indicating that the well was not developed properly or that the well was not completed properly.
- 11) The method of measuring water level depths was inadequate to ensure accuracy to within 0.01 feet. The sound-indicator device for the facilities water-depth probe was not functioning properly during the CME inspection. The water-depth probe used by the facility was found to measure the water depth two to three inches deeper than the probe used by EPA.
- 12) The size of containers and type of container lids were not addressed by the Sampling and Analysis Plan.
- 13) The order of sample collection was not addressed by the Sampling and Analysis Plan.
- 14) Trip blanks and field blanks were not collected for analyses during the CME inspection.
- 15) Monitoring wells E, F, G and H were installed to monitor ground water under two non-RCRA-regulated sewage lagoons. The sewage lagoons may receive wastes from battery electrolyte, film processing, oily water separators, rinse waters and pesticide rinsates. The monitoring wells are screened improperly to test for light, non-aqueous phase liquids if a release occurred. The screen intervals and depth-to-water for these monitoring wells are as follows:

WELL ID	SCREENED INTERVAL	DEPTH TO WATER
MW-E	355' - 370'	272.67'
MW-F	355' - 370'	274.39'
MW-G	357' - 372'	269.99'
MW-H	356' - 371'	270.43'

During the October 1988 sampling event, Cannon AFB collected samples from wells MW-A, B, I and J. Attachment F of this report contains the EPA results. No contamination was identified in the samples analyzed except for 3.6 mg/l of Di-N-Butylphthalate found in a trip blank (Sample #9AGDCR01-06).

Based on these findings, EPA would issue a Federal Facility Compliance Order. EPA will enter these findings into the HWDMS system, and expect that New Mexico Environmental Improvement Division will initiate the appropriate actions. Should you have any questions regarding this inspection report or findings, please do not hesitate to contact me, or have your staff contact Bobby Williams at (214) 655-6790.

Sincerely,



Randall E. Brown
Chief
RCRA Enforcement Branch

Enclosure