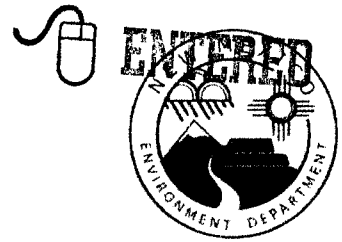




NEW MEXICO
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MEMORANDUM

TO: Dave Cobrain, Manager, Manager, Permits Management Program
THROUGH: William Moats, Albuquerque Group Manager, Permits Management Program
FROM: William McDonald, Albuquerque Permits Management Program, Environmental Specialist
Sid Brandwein, Albuquerque Permits Management Program, Environmental Specialist
SUBJECT: **REVIEW OF KAFB'S SECOND DRAFT OF THE AQUIFER TESTING WORK PLAN, BULK FUELS FACILITY SPILL, SOLID WASTE MANAGEMENT UNITS ST-106 AND SS-111, SEPTEMBER 2013**
DATE: October 1, 2013

This memorandum is in response to the informal submittal of the draft document entitled "Groundwater Extraction Well KAFB-106157 Aquifer Testing Work Plan, Bulk Fuels Facility Spill, Solid Waste Management Units ST-106 and SS-111", dated September 2013, hereinafter referred to as the draft Work Plan. The draft document was provided by you via your e-mail of September 27, 2013. Below are NMED's comments on the Work Plan. The Work Plan still contains significant deficiencies so serious that it, as currently written, should be rejected by the NMED. Below are additional comments.

1. There is no provision for storing treated groundwater during the step drawdown or constant rate tests for a mandatory waste determination before discharging the water into the Water Utility Authority's re-use system. This deficiency was noted previously on earlier versions of the Work Plan. In particular, because there is no provision for temporary storage before discharge, one could argue that such a discharge would be in violation of the hazardous waste determination rules under 40 CFR § 262.11.
2. If no appreciable drawdown is observed at any observation well, the goal "to fully evaluate conditions in the aquifer beneath and downgradient from the Bulk Fuels Facility (BFF) spill site" will not be met. Without observable drawdown in observation wells (preferably more than one), the pumping test should be considered a failure. This deficiency was noted previously on earlier versions of the Work Plan. Because the Permittee will not commit in the Work Plan to do whatever is necessary to complete a successful pumping test, the Work Plan should be rejected by the NMED.

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3. The Work Plan should describe the minimal value that is considered observable drawdown.
4. The Work Plan does not state how the "optimal" pumping rate will be chosen. Will the constant rate test be conducted at one of the three rates used for the step drawdown test or will a calculated "optimal" value be used?
5. The Work Plan does not discuss how the data for the step test and the constant rate test are to be evaluated. This deficiency was noted previously on the earlier versions of the plan.
6. The Work Plan does not discuss when a report will be submitted or what the contents of the report will be. This deficiency was noted previously on the earlier versions of the Work Plan.
7. The Permittee should explain why the intermediate wells KAFB-106069 and KAFB-106097 are not used as observation wells, while the shallow and deep wells of those clusters are being used as observation wells.
8. Page 2-3, #8 states KAFB-106032 is upgradient from KAFB-106157. KAFB-106032 should best be described as cross gradient from KAFB-106157.
9. The equation used in Section 2.1 applies to a confined aquifer, not an unconfined aquifer as is the case at the BFF Spill site.
10. A briefing of aquifer tests results should be conducted with NMED within three weeks of the conclusion of the field testing. Waiting for the submission of a report many months after the testing is completed is unacceptable because all stakeholders need to be informed of the preliminary results.
11. The Work Plan does not state where the treatment system will be located or security measures to be taken to protect the public from exposure to hazardous chemicals.
12. The schedule, Attachment A, does not show the aquifer test to be completed by October 31, 2013, as agreed upon by the Permittee and NMED.
13. The daily sampling frequency is insufficient for purposes of waste management and demonstrating that treatment goals are being met. For example, the Work Plan does not explicitly outline at what time samples will be collected, where the analytical laboratory is located, what time the results will be delivered and acted upon, and what is the total time interval between sample collection and relevant action, considering that the test runs 24 hours a day and may be run on weekends. The Work Plan does not explain the effect on the constant rate test if one or more hazardous constituents in the water exceed regulatory limits. If water will not be discharged into the ABCWUA reuse system, will the water go elsewhere or will the pumping for the constant rate test be halted?
14. The Work Plan, Section 4.2, states "carbon treatment will be used to remove all contaminants". Without a full design of the treatment system, HWB staff cannot assess whether the treatment system is likely to work well enough to meet treatment goals. Details concerning treatment goals have not been adequately developed.