



Alabama Department of Environmental Management
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June 26, 2008

U.S. Army Aviation Center - Fort Rucker
ATTN: IMSE-RCK-PWE (Mr. Jim Swift)
Fort Rucker, AL 36362

PCDR \ PCDR3 \ FORT RUCKER
\ 080408 \ FRK080173

RE: ADEM Review and Comments: Review of Field Activities and Proposed Monitoring Well Locations at AOC-S
Dated May 23, 2008
U. S. Army Aviation Center - Fort Rucker
Fort Rucker, Alabama
EPA I.D. No. AL6 210 020 776

Dear Mr. Swift:

The Alabama Department of Environmental Management (ADEM or the Department) has reviewed Fort Rucker's submittal of the above referenced Review of Field Activities and Proposed Monitoring Well Locations at Area of Concern (AOC)-S.

The Army's purpose is to determine the potential source(s) and extent of tetrachloroethene (PCE) detected above the Maximum Contaminant Limit (MCL) of 5- μ g/L in two of five existing groundwater monitoring wells installed as part of investigative activities at the Closed Incinerator Ash Landfill (SWMU 8). Based on potentiometric surface maps depicting groundwater flow and because the two wells with elevated PCE levels are located side gradient of SWMU 8, the Army has determined that the PCE occurrence is unrelated to past operations at SWMU-8. The area of investigation known as Area of Concern (AOC)-S is located west of SWMU 8 and south of a vehicle storage/maintenance yard. The plume extends beyond the Southern boundary of Fort Rucker. The Army collected soil and water samples from 61 Direct Push Technology (DPT) borings on-post and 11 borings off-post to delineate the plume. Initial groundwater sampling indicates a former wash rack located south of Building 1453 as a potential contamination source. PCE was not detected in soil within the potential source area.

As the next phase of investigation, the Army proposes to install and collect samples from 14 permanent groundwater monitoring wells in and around the plume. Samples will also be collected from four existing monitoring wells previously installed to monitor contamination present in groundwater at SWMU-8.

ADEM has the following comments:

1. ADEM has established that all groundwater in the State of Alabama is a potentially viable potable water supply source pursuant to ADEM Admin. Code Rule 355-6-8-.03 which states: All aquifers or portions of aquifers partially or wholly within the State of Alabama which supply water for human consumption, and all aquifers or portions of aquifers partially or wholly within the State of Alabama in which the groundwater contains less than 10,000-mg/L of total dissolved solids, are designated underground sources of drinking water and shall be protected from pollution.



Mr. Jim Swift
June 25, 2008

2. All shallow wells should be screened to intercept the portion of the contaminated zone just below the top of the water table. Wells used for vertical delineation should be screened below the contaminated zone in the surficial aquifer.
3. ADEM recommends surveying all existing temporary monitoring wells in order to generate a detailed groundwater contour map.
4. No temporary monitoring wells located at AOC-S are to be removed without ADEM approval.

In an effort to fully characterize groundwater contamination at AOC-S, ADEM recommends the following changes to the Army's proposed groundwater monitoring plan (refer to map in the subject document to view the Army's proposed monitoring well locations):

5. Relocate the proposed shallow well located north of DPT-19, downgradient and adjacent to DPT-19 and screen to intercept constituents detected in DPT-19.
6. Screen the proposed deep well located south of DPT-10 to intercept constituents detected in DPT-10.
7. Install an additional well pair (one deep and one shallow) midway between DPT-19 and DPT-53, to delineate a potential source area both horizontally and vertically.
8. Install an additional well, screened below the contaminated zone, adjacent to DPT-20, to vertically delineate PCE contamination downgradient of a potential source area near DPT-19.
9. Install an additional shallow well, installed approximately 250-ft north northwest of DPT-55, just outside the east boundary, and downgradient of the apparent plume, to horizontally delineate the plume.

The Army's response to ADEM's comments should include a revised map indicating proposed monitoring well locations at AOC-S.

For any questions or concerns regarding this matter, contact Mr. Mark Harrison at 334-270-5610 or via email at mdharrison@adem.state.al.us.

Sincerely,



Stephen A. Cobb, Chief
Governmental Hazardous Waste Branch
Land Division

Cc: Mr. Robert Brown/CCI
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