N83447.AR.000422
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LETTER REGARDING U S EPA REGION VI REVIEW AND COMMENTS ON DRAFT RCRA FACILITY INVESTIGATION AREA OF CONCERN 2 NAS FORT WORTH TX
2/25/1999
U S EPA REGION VI

NAVAL AIR STATION
FORT WORTH JRB
CARSWELL FIELD
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 452

File:
P.W. 17A-64

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

February 25, 1999

Ray Risner
Corrective Action Section
Remediation Division
Texas Natural Resource Conservation Commission
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Risner:

The Environmental Protection Agency (EPA) has reviewed the following document, "Draft RCRA Facility Investigation Report Area of Concern 2, Naval Air Station Fort Worth, Joint Reserve Base, Texas." The "Basewide Groundwater Sampling and Analysis Program Quarterly Monitoring Report, July 1998 Event" and the "Draft Work Plans, Focused Feasibility Study and Interim Remedial Action, NAS Fort Worth, JRB, Texas" were used to complete the review. The following comments are provided:

1. **General Comment.** There appears to be a limited number of monitoring wells screened in the Paluxy Aquifer scattered across Carswell AFB. Have these wells been sampled? Is there any indication that another "window area" could exist on Carswell?

2. **3.2 RFI Objectives.** One of the objectives is the delineation of the northern lobe of TCE groundwater contamination. The following areas do not appear to be fully delineated:

   a. The southeastern tip of the plume, in the vicinity of wells MW-6, MW-7 and BSS-B has not been delineated. Although the location of these wells is outside the AOC 2 boundary, the plume is shown extending to the boundary. Because of the distance between sampled wells in this area, the above wells should be sampled to confirm the plume has been delineated. Wells MW-6, MW-7 and BSS-B are in included in the July Quarterly Monitoring, however the wells are not sampled for volatile organic compounds.

   b. The northeastern tip of the plume between monitoring well WTCTA010 and USGSS04T has not been fully delineated. Although a direct push temporary well PCHMTHTA0F1 is shown as <5 μg/l TCE a permanent monitoring well should be installed. The plume in this area is close to facility boundary and BRAC property.

3. **4.6 Staff Gauge Measurement Findings.** This section indicates groundwater flows to Lake Worth in the northwest section of the AOC 2 plume. Based upon the lack of monitoring wells in this area, the highest concentrations of TCE in the plume could be flowing toward the lake. Monitoring wells WITCTA001, WITCTA003, WITCTA004 and USGSS01T were not sampled during this investigation and are not sampled during quarterly monitoring events. These wells should be sampled to delineate this section of the plume.

4. **5.5.1 First Groundwater Sampling Event (December 1997).** The last paragraph describes the vertical distribution of contaminants. Monitoring well GMI-22-05 does not appear to be drilled to bedrock. If it is screened in the upper part of the plume, the non-detect at this well could be false. A direct push temporary well, AGA002 within 150 feet of GMI-22-05 contained 15 μg/l of TCE and are no other monitoring wells down gradient of this location. This site is within 300 to 500 feet of the facility boundary and the Trinity River.

5. **5.5.1 First Groundwater Sampling Event (December 1997).** The discussion on vertical distribution of contaminants, should be considered in any future investigations of this TCE plume. There appears to be a large number of wells that are screened at the top of the aquifer which could make delineation to 1 μg/l difficult. TCE could be present in the lower part of the aquifer, yet missed in these wells.

6. **Section 7.0 Risk Assessment - General Comments.** Risk assessments are done to provide another tool for the risk manager to use in making decisions concerning the need for remediation and appropriate clean-up levels. Risk assessments are developed to show risks under current conditions and potential conditions taking into account the future land use and future receptors of interest. This document does not look at several exposure pathways relevant for future users. According to the risk assessment, it is recognized that there may be future concerns based upon a model prediction that shows that the groundwater contamination may reach the West Fork of the Trinity River in 4 years at levels that exceed the MCLs and the Texas Water Quality Standards. Is the model prediction enough for a risk manager to make decisions about the need for remediation and to set appropriate clean-up levels? If the model is not sufficient for these decisions, then developing a risk assessment (human health and ecological) looking at the pathways relevant to surface water is not warranted at this time. This potential source is a concern, however, and needs to be addressed in some fashion.

7. **Section 7.0 Risk Assessment - General Comments.** The Risk Assessment presented in this document may be seriously flawed or it may be simply in the presentation. Due to limited resources, this risk assessor does not have the luxury of determining the specific problems and Carswell Air Force Base needs to make sure that the correct equations and parameters were utilized. Please see specific comments below and in particular for Appendix K for where the risk assessment may be flawed.

8. **Section 7.0 Risk Assessment - General Comments.** It should be noted that the conceptual site model does not consider any current or future residents. This is not a problem as long as the reuse plan is consistent with this approach and documentation that residential was not considered in the risk assessment is available to all appropriate parties.

9. **Page 7-10, Table 7-6.** According to page 7-10, Table 7-6 is a compilation of National Ambient Water Quality Criteria and would serve as future potential surface water quality criteria in the event that groundwater should impact the West Fork Trinity River. This is not the appropriate criteria.. National Ambient Water Quality Criteria are merely EPA's recommendations and are not enforceable. What should be utilized is the most recent Texas Water Quality Standards as the standards are regulation and are enforceable.

10. **Tables 7-3, and 7-4.** The units for averaging time should be "days" not "years."

11. **Figure 7-1.** Conceptual Site Model. Why is the drinking water pathway not considered under "surface water"?

12. **Table 7-7.** This table is supposed to contain the risk characterization results for the current and future construction worker scenario. I do not see the delineation between the current and future scenarios on this table.

13. **Appendix K.** This table contains erroneous and unexplained numbers which should be checked to see what actually went into generating the hazard quotient table. The table also includes fragments from perhaps another table. I am expecting to see a table based upon a current potential construction worker and a future construction worker. Only one scenario is presented. Why is the soil ingestion rate different between the carcinogenic and noncarcinogenic columns? Why is there a column labeled VF sandwiched between the two columns? How can it be that a 1 year exposure duration (ED) yields a 25,550 day averaging time (AT) when the definition of AT is ED x days/year? Conversely, the other column lists an ED of 25 years for dermal and inhalation and an AT of 365 days. I need to see the tables corrected, and an example calculation for future and current scenarios and carcinogenic and noncarcinogenic so that I can determine if the right numbers are being input into the calculations.

Please contact me at (214) 665-8306 should you wish to discuss this further.

Sincerely,

Gary W. Miller
Senior Project Manager
Base Closure Team

cc:
Mr. Mark Weegar
Mr. Rafael Vazquez
Mr. Joseph Dunkle

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ADMINISTRATIVE RECORD

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