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KELLY AFB
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 1843

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5 November, 1999

Brigadier General Robert M. Murdock
SA-ALC/CV
100 Moorman Drive, Suite 1
Kelly Air Force Base, Texas 78241-5000

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☐ CCE 8 Nov 99

Dear General Murdock,

Attached are my initial comments on the *Site S-4 Groundwater Corrective Measures Study Addendum,* Draft Final, August 1999. I am unable to complete my review of the Study because I have not received 1) a copy of the groundwater flow and transport model used in the study, or 2) copies of representative input and output files. I have requested the model and files several times over the last six months. Although members of your staff (e.g., William Ryan) have told me I would given the model and files, I have yet to receive them. Thus, I am asking you to extend the comment period for 60 days after I receive the model and files.

Sincerely,

George Rice
414 East French Place
San Antonio, TX 78212
tel/fax: (210) 737-6180

General Comments

1. No sensitivity studies were performed on the results of the groundwater flow and transport model. Sensitivity studies should be performed to determine how model results change in response to changes in the values of physical parameters such as partition coefficients, decay rates, and dispersivities.

2. The study does not evaluate the potential for volatile groundwater contaminants such as vinyl chloride to move into homes near Kelly AFB. The Air Force should conduct a thorough evaluation to determine: 1) whether these volatile contaminants are migrating into homes, and, 2) if migration is occurring, whether it threatens the health of people living near Kelly AFB.

3. The study does not evaluate the pump and inject method of groundwater remediation. A well designed pump and inject system might significantly reduce the time required for remediation. The Air Force should perform a thorough, site specific, evaluation of the pump and inject method in the S-4 study area.

Specific Comments

1. Page 1-3, lines 12-13

The document states that the Industrial Wastewater Collection System (IWCS) was a probable source of JP-4 free product. Was JP-4 disposed in the IWCS? If so, please state when this disposal occurred and provide estimates of the amounts disposed.

2. Page 1-9, Figure 1-3

The interim (1989) and optimized (1999) recovery systems shown here appear to be identical. Are they? If not, please explain the differences between the two systems.

3. Page 2-5, lines 25–28, and Page 2-7, lines 3-5

The document states that Cr and Ni are not associated with past or present site activities. However, according to Table 1.2 of the *1994 Annual Report, Kelly AFB Basewide Remedial Assessment* (November, 1995), one or both of these metals are associated with fuel spills, metal plating shops, and the IWCS in Zone 3. Please explain this apparent discrepancy.

4. Page 3-1, lines 22-23

Please explain how the positions of the non-detect contours were determined. Were they hand drawn or computer generated? What, if any, interpolation methods were used to determine their positions?

5. Page 3-1, lines 28-29

Please explain what is meant by "the plume has reached steady state". Has the Air Force estimated the length of time this steady state has persisted?

6. Page 3-3, Figure 3-2

In February 1998 the Air Force and Mr. Armando Quintanilla jointly installed and sampled a monitor well on Mr. Quintanilla's property, 710 Price Avenue. The samples contained TCE in concentrations above the MCL. Why is this information not shown on Figure 3-2?

7. Pages 3-7 and 3-8, Figures 3-6 and 3-7

Do these figures represent actual changes in concentrations over time, or just changes in our knowledge of the extent of contamination?

8. Page 4-1, lines 15-16

Please identify the municipal ordinances that are referred to here.

9. Page 4-2, Table 4-1

All the alternatives listed here include the use of administrative controls. Please identify any local or state regulations that could be used as administrative controls in off-base areas.

10. Page 4-4, lines 30-34

Are the " 'Optimized' groundwater pump and treat systems" installed yet? If so, are they working as expected? Please explain what is meant by 'optimized'.

11. Page 5-1, lines 8-16

'Community acceptance' is not one of the evaluation criteria listed here. In the past, community acceptance was an evaluation criterion (e.g., *Feasibility Study for Zone 3 Groundwater*, June 1995, Sections 6 and 7). Please explain why community acceptance is no longer used as an evaluation criterion.

12. Page 5-2, Section 5.2.2

Has the Air Force estimated the mass of contaminants that are currently in groundwater at Site S-4?

13. Page 5-2, Table 5-1

The figures for alternative 1 do not add up to 359.

14. Pages 6-3 and 6-5, Figure 6-1 and Section 6.2.1.2

Construction of the culvert/barrier system could cause groundwater to flow around the northern and western ends of the system. Thus, monitor wells should be installed immediately north and immediately west of the culvert/barrier system. These wells should be part of the long-term monitoring network.

15. Page 6-5, Section 6.2.1.3

How many off-base wells does the Air Force intend to monitor? Table 6-1 lists 20, not 21 off-base wells. Are the 'Four additional monitoring wells ... " referred to on line 28 supposed to be in addition to the 21 wells mentioned on line 18?

16. Page 6-5, lines 24-25

Is the reference to Figure 3-11 an error? Which figure shows the 'dry zone'?

17. Page 6-6, lines 9-10

Will the composite samples be taken upstream or downstream of the convergence?

18. Page 6-6, lines 11-12

What sites are being referred to here?

19. Page 6-6, lines 18-19

The statement is unclear. Where is the description of the ' ... routine system performance ... ' that ' ... should be conducted'?

20. Page 6-7, Section 6.3

Do these three paragraphs constitute the entire contingency plan? A contingency plan should consist of objective, measurable criteria that will lead to clearly stated actions. The plan described here is vague. Nothing specific is required in the event that the system does not respond as predicted. Does the Air Force intend to produce another contingency plan? If so, when will it be available for review?

21. Page 6-7, lines 13-16

Has the Air Force estimated the amount of time that will be required to completely contain or eliminate the continuous source? Do the times listed under 'Time to reach MCL' in Table 5-3 include this time?

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