N83447.AR.000181
NAS FORT WORTH
5090.3a

LETTER REGARDING U S EPA REGION VI COMMENTS ON TREATABILITY STUDY TEST DESIGN WORK PLAN FOR SITE ST14 NAS FORT WORTH TX
8/16/1994
U S EPA REGION VI

File: 17G
A.F.

192000

NAVAL AIR STATION FORT WORTH JRB CARSWELL FIELD TEXAS

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 192

File: 17A-41
D.B.

~~217~~
192

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

192091

AUG 16 1994

Mr. Christopher D. Hobbins
Team Chief
Base Closure Restoration Division
HQ AFCEE/ERB
8001 Inner Circle Drive, Suite 2
Brooks AFB, TX 78235-5328

Dear Mr. Hobbins:

The Environmental Protection Agency (EPA) has reviewed the Treatability Study Test Design (TSTD) work plan for site ST14. The enclosed comments reflect the input from EPA's risk assessor as well as the project manager.

As discussed during a meeting on August 10, 1994, EPA is unclear as to whether a baseline risk assessment will be conducted as part of this risk-based approach to remediation. Without conducting a baseline risk assessment, EPA is uncertain as to how it will be determined if clean-up is required and if clean-up is necessary, which contaminants will have clean-up standards selected. It is also not clear whether a selected remedy is going to address the current site risks or if the remedy will address the future risks based on fate and transport analyses. Any remedy selected will have to address the current site risk, not just future risks based on fate and transport analyses.

If you have any questions concerning these comments, please contact me at (214) 665-6749.

Sincerely,

Gary A. Baumgarten
Project Manager

Enclosure

cc: Cecil Irby, TNRCC
Frank Grey, AFBCA/OL-H

Environmental Protection Agency Review Comments On
Work Plan for an Engineering/Cost Analysis
in Support of the Risk-Based Approach
to Remediation at Site ST14

Page 2-14, Paragraph 2, Section 2.3.3 Ground Water Data

Comment: "The maximum...exceeds its MCL...." In addition, a greater than 3 fold difference is more than a "slight" exceedance.

Page 2-14, Last Paragraph, Section 2.3.3 Ground Water Data

Comment: The fact that the 1990 sampling took place immediately after a "abnormally high precipitation and flooding events" put the validity of the results in question? If inferences to these data will be made in order to formulate conclusions, then the data quality should be addressed in a thorough form.

Page 2-17 and 2-18, Table 2.1. ANALYTICAL RESULTS FROM SOIL SAMPLING PERFORMED IN JUNE 1993

Detection limits are not referenced in the table nor in the text. Less than "<" values which may be interpreted as detection limits were not consistent for benzene.

Page 2-19 and 2-20, Table 2.2. ANALYTICAL RESULTS FROM GROUND WATER SAMPLING PERFORMED BY RADIAN CORPORATION, 1990

MDLs were referenced in the table. However, Sample Quantitation Limits (SQLs) should also be reported especially in the light of the fact that these data may be used in the risk process. SQLs are required to be reported in the risk process.

Page 2-23, Second paragraph Section 2.3.4 Surface Water Data.

Comment: The fact that the surface water samples were collected after the above mentioned events puts the validity of the data in question.

Page 2-24, Table 2.4. ANALYTICAL RESULTS FROM SURFACE WATER SAMPLING PERFORMED BY RADIAN CORPORATION, 1990

No detection limits were reported. Once again, SQLs should have been reported, especially if the data is to be considered for the risk process.

Page 3-8, Paragraph 1, Section 3.1.5 Fate and Transport Processes

Comments: The fact that there is no data on the toxicity of some chemicals does not suggest that the compounds do not bioaccumulate or bioconcentrate. It only indicates that they have not been

studied or results indicating those properties have not been reported.

What criteria will be used to determine if a compound is bioavailable?

Page 3-9, Section 3.1.5 Fate and Transport Processes

Comment: Will the potential risk of the derivatives from the breakdown of the contaminants also be assessed?

Page 3-9, Section 3.1.6 Potential Human and Ecological Receptors

Paragraphs 1 and 2: **Comment:** How certain is the future land use of the area being investigated? Industrial land use is assumed to be the future land use. It is important to note that if this is the land use assumed during the risk process it must be carried out as the sole use of the property in question. For that reason, the residential land use (the most conservative assumption) is often recommended when the future land use for a specific site has not been finalized.

Page 3-9, Paragraph 1: When stating that it is unlikely that ground water well would be used as sources of potable water for potential future residents, has it been determined if the contamination ground water system is a Class I, II, or III aquifer?

Page 3-10, Paragraph 3

Comment: Cite the source of information or the reference for the statement that "Available toxicity data for plants and animals do not suggest that volatile organic compounds such as the BTEX compounds and naphthalene can be bioaccumulated or bioconcentrated."

Page 3-12, Second Paragraph, Section 3.1.8 Target Remediation Goals

Comments: The conclusion from the fourth sentence in the above paragraph is not considered appropriate. In addition, there are site-specific circumstances which may warrant the need for remediation even in the case where chemical-specific screening levels have not been exceeded i.e. additive effects from multiple contaminants at the same site.

Page 3-12, Last paragraph

Comments: The fact that no screening levels (or "evergreen" levels) are exceeded does not preclude the regulatory agencies involved to require further study or remedial action. It merely, does not readily indicate the possible need for further study or remedial action.

Page 3-14, Second paragraph

Comment: All available criteria should considered in establishing ecological remediation goals.

Page 3-16, First Paragraph Section 3.2.2 Biodegradation of Dissolved-Phase Contamination

Comment: Less stringent, site-specific final remediation goals should not be assumed to be negotiated based on the fact that the remediation process selected by the permittee is inadequate to meet the requirements it set out to achieve.

Page 5-2, Section 5.2.2 Data Evaluation and Modeling.

Comment: SQLs must be reported for non-detected parameters.

Page 5-4, Paragraph 2, Section 5.2.2: Is the Reasonable Maximum Exposure for the risk assessment being based on concentrations determined using the fate and transport models?

Page 5-5, Figure 5.2 (Risk Analysis Methods):
The figure does not show a baseline risk assessment being conducted for completed exposure pathways.

Please explain why an iterative quantitative exposure assessment is conducted for each remedial alternative.

Page 5-6, Fourth Paragraph, Section 5.2.3.2 Identifying Cleanup Goals

Comment: Risk Reduction Standard No. 3 requires toxicity information from the following sources be utilized in the order indicated:
1) Integrated Risk Information System (IRIS);
2) Health Effects Assessment Summary Table (HEAST);
3) U.S. EPA Criteria Documents;
4) Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles; and
5) Other scientifically valid published sources.

Page 5-7, Paragraph 3, Section 5.2.3.2.2: Dermal adsorption should be included as a pathway for soils.

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE