Minnesota Pollution Control Agency

Ground Water & Solid Waste Division
Site Response Section

Site Name

Category

Subcategory

Initials

June 25, 1993

Commanding Officer
Mr. Christopher Bartku, Code 1862
Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina 29419-9010

Dear Mr. Bartku:

RE: Completion of Review and Comments on the Document titled, "Remedial Investigation Report For The Soils Operable Unit At The Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, May 1993, Volume I"

Minnesota Pollution Control Agency (MPCA) staff has completed a review of the document titled, "Remedial Investigation Report For The Soils Operable Unit At The Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota, May 1993, Volume I" (RI Report). MPCA staff modifications and comments on the RI Report are enclosed and need to be addressed. According to the schedule, a draft Final RI Report will be submitted to the MPCA and U.S. Environmental Protection Agency (EPA) which addresses both MPCA and EPA modifications and comments by August 8, 1993.

Please note that no comments were submitted regarding the Baseline Risk Assessment. MPCA staff comments on the Baseline Risk Assessment were forwarded to the EPA for their consideration.

If you have any questions regarding this letter, please contact Steven Giddings, of my staff, at (612) 296-7775 or John Betcher, of my staff, at (612) 296-7821.

Sincerely,

Gary A. Pulford, Manager
Site Response Section
Ground Water and Solid Waste Division

GAP:cj

Enclosure

cc: Linda Hicken, RMT, Inc.
Eugene Liu, U.S. Army Corporation
Douglas Hildre, FMC
Thomas Bloom, U.S. EPA, Region V
Terry Roundtree, U.S. EPA, Region V

TDD (for persons who are hearing and speech impaired only): (612) 297-5353
520 Lafayette Rd.; St. Paul, MN 55155-4194; (612) 296-6300; Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester

Minnesota Pollution Control Agency

Modifications and Comments on the Remedial Investigation Report for the Soils Operable Unit at the Naval Industrial Reserve Ordnance Plant, Fridley, Minnesota - May 1993

MODIFICATIONS

1. Page 1-11, Hazardous Materials Storage Building Addition. The report is in error concerning the statement that "No TCE was reported in soil sampled from the excavation." Soil containing trichloroethylene (TCE) at hazardous levels was excavated from the site and sent to a hazardous waste incinerator. Some mixed cutting oil and low level TCE soil was also excavated from this area and remains stockpiled at the site. The report should be corrected to reflect the TCE observed in the removal action excavation.

2. Pages 3-4 to 3-10, 3.1.3 Correlation Between Field and Laboratory Results. The experiment to estimate the amount of volatile organic compounds (VOCs) lost to volatilization from bottles does not represent the same conditions as field procedures for actual samples. Empty bottles were used for the experiment that contained no soil. It would be expected that there would be less volatilization if the bottle were filled with soil because much of the volatile compound would be retained in the soil voids and would not simply be in an empty bottle. The study may tend to overestimate the loss from the bottles. Also, there is no way to duplicate in the experiment the handling and storage of the field samples. As an example, the field samples were stored and shipped in coolers at low temperatures which may have reduced the amount of loss from the bottles. It is difficult to determine how to evaluate the potential loss from the bottles but the testing would seem to indicate that the laboratory results may be somewhat low.

The statement on page 3-9 concerning the relative sensitivity of the field versus laboratory data is not correct. The laboratory method should be more sensitive than the field GC unit. There are, as stated on page 3-4 many factors which effect the headspace concentrations for VOCs in the field and the potential for loss from the bottles is also possible. These factors may be more important in the difference in the results than is the sensitivity of the laboratory instruments as is the potential loss of VOCs due to bottles.

Assuming that significant loss of sample occurred from the bottles used, there should be a discussion in this section which evaluates the effects of the loss of VOCs in laboratory samples on the list of site compounds evaluated in the risk assessment. Based on the laboratory samples did some compounds drop off the list of chemicals of concern due to loss during shipment and handling before being analyzed? Also, during risk evaluation, did the loss of VOCs in the samples result in an underestimation of the potential risk of some compounds? Was an attempt made to reconstruct or adjust what the levels might have been in the original samples before VOC loss during shipment, handling and storage before analysis? Discussion of these issues shall be included in the final report.

3. Page 4-11, Sub-Area A3. Excavations at several of the anomalies in this area indicate fill and debris as well as moderately high to high VOC levels. These include anomaly #12 and #14. In the trench for #14 the fill was to a depth of 11 feet and strong oily odors were observed. In light of the similarity of the situation where fill, debris and barrels where found at anomaly #13 additional visual verification trenches should been carried out to verify the presence or absence of barrels in these areas. If review of the Phase I data indicates a similar situation at #15 this area should also be trenched for visual verification of potential barrels.

4. Page 4-17, Sub-Area A4. Excavations at a number of the anomalies in this area indicate fill, debris and VOCs similar to the situation at anomaly #13 where the barrel removal was carried out. Anomaly #2 contains fill with debris and also had a solvent like odor and high VOC levels. Anomalies #4, #9, #10 and #11 also contain fill. For anomalies #2, #4, #9 and #11 visual verification trenches should be performed to verify the possibility of barrels. For trenches #10 and #11 the work plan indicated that 20 foot by 20 foot trenches would be performed to cover these areas in response to the MPCA's November 20, 1991, modification letter to the Phase II Soils Work Plan. This large of an area was not trenched and adequate coverage of these areas was not obtained.

5. Page 4-29, Area D. A more detailed discussion of the remedy for the Resource, Conservation and Recovery Act (RCRA) Area C should be included in this section. A remedy has been selected and designed and a cleanup strategy set for this area. This information should be included in this section as the RCRA action is so integrally related to any Comprehensive Environmental Response, Compensation and Liability Act remediation that occurs in this area. The rational for the outline of the limits of the RCRA closure shown on Figure 4-8 should also be included in the discussion.

6. Page 4-30, Area D, Summary of Observed Chemical Impacts. The summary of Area D chemical impacts does not include an iso-concentration map of the VOC contamination in this area as was done for the other areas in the study. This should be included in Figure 4-8 as well as should the rational for the outline of the limits of the RCRA closure.

7. Page 8-1. The text indicates that an Initial Screening of Possible Alternative Response Actions should be included in the draft RI Reports. Why was such a screening not included in this draft Remedial Investigation (RI) Report? A Initial Screening of Possible Alternative Response Actions and a completed Section 8 shall be included in the next draft RI Report.

COMMENTS

1. List of Acronyms/Abbreviations. TOC-Total Organic Content should be included.

2. Page 1-2, Paragraph 4. The name of the park directly west of NIROP is "Anoka County Riverfront Regional Park" and not "Anoka County Islands of Peace Mississippi Riverfront Park" as indicated. This change should be made throughout the RI.

3. Page 1-3, Paragraph 4. Dreschach (not Dreschach) Formation is an old term seldom used. It should be replaced by Ironton/Galesville Sandstones.

4. Page 1-5, Paragraph 2. Reference should be made to Figure 3-1 for clarity.

5. Page 1-6, Paragraph 5. Second sentence should read, "...presented in the feasibility study was the alternative selected in the ROD."

6. Page 1-7, Paragraph 3. The mention of conductivity anomalies here as well as on Page 1-5 cause the reader to suspect that two separate surveys took place. This should be clarified to avoid confusion.

7. Pages 1-7 to 1-11. A figure showing the conductivity anomaly locations at the site is needed for quick reference.

8. Page 1-10, Paragraph 2. On page 1-2 mention is made to an air photo review in 1992. The text indicates two reviews and both are listed as occurring in 1991. Please clarify.

9. Page 1-11, Paragraph 4. CLP should be initially spelled out prior to abbreviation.

10. Pages 3-4 to 3-10, 3.1.3 Correlation Between Field and Laboratory Results. Before a sampling plan for release sampling for the soils remedy, lab testing should be carried out to determine that the bottles used for containing soil samples for release sampling do not have a VOC loss problem such as the one experienced in the Soils RI sampling.

11. Page 4-2, Paragraph 1. Laboratory data qualifiers should be included up front in this Section for easier reference.

12. Page 4-3, Paragraph 1. Since pesticides were common in samples from the NIROP and pesticide application at NIROP likely, spraying and drift from the NIROP may account for the pesticide shows in the park.

13. Page 4-3, Paragraph 2. Which metal was found in 1 of 20 samples? in all samples?

14. Page 4-3, Paragraph 3. What might explain the high concentrations of Ba and Mn in the two data points excluded from the UCL calculation.

15. Figure 4-1. Anomaly #13 should be indicated as having been excavated in this and other figures.

16. Page 4-15, Paragraph 1. What about TCE?

17. Page 4-23, Paragraph 1. Vertical migration of metals is more likely minimal as opposed to "not occurring".

18. Page 9-4, Paragraph 2. Pesticides identified in the park may be the result of drift from spraying at the NIROP.

19. Page 9-5, Paragraph 2. SVOC is assumed to be asphalt related, not is asphalt related.

20. Pages 9-17 and 9-18. Although the MPCA is not supplying detailed comments on the Ecological Risk Assessment (EPA will be the lead in reviewing and supplying comments as agreed) the statement that there is little favorable habitat for terrestrial biota and access is restricted by an 8 foot chain link fence is incorrect. The site is ideal for field mice, gophers, and a wide variety of insects. Because of this, there is not a lack of food sources for specific birds. During the soil RI work at the site a Kestrel was seen on various occasions at the site. Also hawks and other birds may commonly hunt at the site.