



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

N91192.AR.000634
NIROP FRIDLEY
5090.3a

REPLY TO THE ATTENTION OF:

November 12, 2002

Mr. Jeff Meyers
SOUTH DIV NAVFACENCOM
P.O. Box 190010
North Charleston, S.C. 29419-9010

RE: Remedial Action Work Plan, dated October 2002 for Naval Industrial Reserve Ordnance Plant (NIROP) - Fridley, Minnesota

Dear Mr. Meyers:

The United States Environmental Protection Agency (U.S. EPA) has completed review of the above referenced document. Our comments are provided below.

VOLUME 1, REMEDIAL ACTION MONITORING PLAN

SPECIFIC COMMENTS

- 1. Section 4.3.5.2, Chain-of-Custody (Page 4-37):** The last sentence of this section states that "A checklist of information that must be included on the COC form is provided in Appendix C." It does not appear that the checklist is included in Appendix C. Revise the Remedial Action Monitoring Plan (RAMP) to correct this discrepancy.
- 2. Section 5.2, Monitoring Locations and Frequencies (Page 5-1):** The first sentence of this section indicates that the monitoring location at Outfall 020 is depicted on Figure 4-1. However, the outfall location does not appear to be depicted on the map. Revise the RAMP to correct this discrepancy.

VOLUME II, QUALITY ASSURANCE PROJECT PLAN

GENERAL COMMENTS

1. Section 4.1 of the Remedial Action Monitoring Plan (RAMP) indicates that one of the objectives of the investigation is to evaluate air stripper emissions to the atmosphere. However, the evaluation of air stripper emissions does not appear to be discussed anywhere in the Quality Assurance Project Plan (QAPP). If evaluation of air stripper emissions is to be an objective of the field investigation, all applicable sections of the QAPP need to be revised to include detailed descriptions of how air stripper emissions will be evaluated, including sampling, analysis, action levels, and data review and validation, or exclude the evaluation of air stripper emissions as one of the objectives in the RAMP.
2. Table B4-1 includes sample preparation and analysis methods for the analysis of iron (FE) and manganese (MN). Table B6-1 also includes reference to metals analysis by providing preventative maintenance requirements for an ICP/AES. However, no other information is provided concerning sampling or analysis for these, or any other, metals in the QAPP. If metals analysis is to be performed as part of this field investigation, the QAPP needs to be revised to provide all required information concerning sampling, analysis, and data validation and management for these parameters. If metals analysis is not to be performed, revise Table B4-1 and Table B6-1 to remove the information concerning metals analysis and instrumentation.
3. Element A3 of the U.S. EPA Region 5 Instructions on the Preparation of a Superfund Division Quality Assurance Project Plan, Revision 0, dated June 2000 (Superfund QAPP Instructions) states that the QAPP must list all individuals and their organizations that will receive copies of the approved QAPP and any subsequent revisions. This distribution list is not provided in the QAPP. In order to comply with Superfund QAPP Instructions, include a distribution list in the QAPP.
4. Not all references to other documents are sufficiently complete to result in a user-friendly document. For example, in Section A5.1, it is indicated that site history and past data collection activities are discussed in the RAMP. However, no specific sections or page references are provided. While reliance on related site documents for required information is generally acceptable, the QAPP should include a clear, specific reference to where in the related document (the RAMP in this case) the information is located. Review and revise the QAPP as necessary to ensure that adequate document referencing is provided throughout the document.

SPECIFIC COMMENTS

1. **Section A4.1, page A4-1:** The Project Organization Chart (Figure A4-1) lists personnel that are not included in Section A4.1 of the QAPP and the text of Section A4.1 includes positions not included in Figure A4-1. For example, the TtNUS HSM is indicated to be M. Soltis in the text. However, neither M. Soltis nor the TtNUS HSM are listed in Section A4.1, nor are this individual's associated responsibilities provided. Revise Section A4.1 and Figure A4-1 to be consistent and complete, addressing all requirements of the Superfund QAPP Instructions for this element.
2. **Section A4.2, page A4-5:** The Quality Assurance (QA) Responsibilities section does not identify the personnel responsible for data validation. Superfund QAPP Instructions, Element A4, Part B, states that the QA personnel responsible for data validation will be specified. Revise this section to clearly indicate who will be responsible for data validation or provide a complete reference to where this information is located.
3. **Section A4.2.5, page A4-7:** The Laboratory Responsibilities section does not list the analytes and matrices that will be tested at the laboratory. Superfund QAPP Instructions, Element A4, Part D, indicates that analytes and matrices that will be tested at a given laboratory must be stated in this section. Revise this section to include the analytes and matrices that will be tested or provide a complete reference to where this information can be found.
4. **Section A6, page A6-1:** This section does not discuss how data will be verified internally and validated externally nor how analytical error will be assessed. Superfund QAPP Instructions, Element A6, Task 5 recommends that data validation criteria and guidance used to validate the project data be identified in this section. Revise this section to include all applicable data verification and validation procedures as specified by the Superfund QAPP Instructions.
5. **Section A6.4, page A6-3:** This section does not provide sufficient information to meet the guidelines presented in the Superfund QAPP Instructions, Element A6, Part B. The Superfund QAPP Instructions recommends providing a schedule of work to be performed in graphical or tabular format. The time line must include the start and completion dates for all project activities. The use of bar charts showing time frames of various QAPP activities is recommended. Revise this section to include all required information presented in Superfund QAPP Instruction, Element A6, Part B.
6. **Table A7-1 Quality Control Limits, p.A7-2:** For 6 of the 8 total VOC contaminants of concern, the LCS/LCSD show "NA" (not applicable) for the QC limits. Why aren't specific QC limits established for these analytes?
7. **Table A7-2, page A7-3:** On the row for the surrogate compounds in Table A7-2, it is indicated that information concerning surrogate compound acceptance limits can be found in Table A7-1. However, this information does not appear to be included in Table

A7.1. Revise Table A7-2 to include a correct reference, or revise Table A7-1 to include information on QC acceptance limits for the surrogate compounds.

8. **Table A7-2 Non-Calibration QC Sample Usage, Frequencies, Acceptance Limits, and Corrective Actions, p.A7-3/4 (Note: Comment is Validation Related):** The table format and content is very useful, and US-EPA requests that a table of this type be used to express in the QAPP all QC parameters, including such items as holding times and all calibration. This separate table (or set of tables), would have all the columns that Table A7-2 has, including acceptance criteria, and additionally a column with the corresponding data validation flag/qualification that would be the result from exceeding each of the acceptance criteria. This would give any QAPP user a valuable tool to quickly determine the reasons for any data flagging that occurs.
9. **Section A7.3.3 Laboratory Completeness Objectives, p. A7-7:** The last sentence in the paragraph states that "laboratory completeness objectives are 75 percent for each critical target analyte per sample matrix". According to later text in Section D1.3 Completeness Assessment, only data that is rejected "R" would be considered unusable (not valid) and would thereby reduce percent completeness. Is the 75% a typographical error? US-EPA normally requires a 95% laboratory completeness objective, in particular for critical target analytes. If the 75% target per analyte is utilized, there is a risk that some significant data gaps will occur.
10. **Section A9.1.3 Fixed Laboratory Data Package Deliverables, p. A9-1:** Text only states that CLP electronic deliverables, formatted according to the requirements stated in the laboratory subcontracts, will be provided. Please provide a list of what these deliverables will consist of. Will raw data (instrument output, chromatographs, etc.), laboratory case narratives, calibration and QC information be provided? Table 9-1 lists project documentation and records. Which of these will be part of the data deliverables package? Please elaborate.
11. **Section B2.1, page B2-1:** It is indicated that information concerning measurement of field parameters is described in detail in Section B1. However, Section B1 of the QAPP does not appear to provide this information. Please either revise the reference in Section B2.1 or the text in Section B1 to address this apparent discrepancy as well as ensuring that all information required in the Superfund QAPP Instructions concerning measurement of field parameters is included in the QAPP.
12. **Section B5.2.1 Laboratory Control Samples, p. B5-3:** Text states that for the NFESC QA program, LCSs for multiple-analyte organic methods must contain at least two targeted analytes from each major class of compounds. Although the minimum NFESC requirement of two analytes has been met, due to the short list of analytes to be analyzed and the critical nature of the data, US-EPA requests that the LCS/LCSDs should contain all the target analytes for VOCs.

13. **Table B6-1, page B6-2:** The information concerning preventative maintenance for the GC/MS instrumentation does not appear to be sufficiently complete to address all aspects of the instrumentation. Please review Table 8 of Attachment A of the Superfund QAPP Instructions for an example of the level of detail required for this element and revise Table B6-1 accordingly.
14. **Section B8.1 Contract Compliance Screening, p. B8-1:** Text in previous paragraph of Section B8 Data Management stated that contract compliance screening, and data validation, are the two phases of the data review process. It is not clear who specifically will be doing the contract screening process. Please elaborate as to who will do this, who they report to, and what output (reports, documentation) that will result from this review.
15. **Section B8.2 Data Validation, p. B8-1:** Text states that TTNUS will conduct an EPA Level III data validation on 10% of the data. However, in Section D2.2.2, p. D2-2, Procedure Used to Validate Laboratory Data (which describes the actual validation procedures and requirements), it clearly specifies that 100% of the laboratory analytical data will be subjected to validation to ensure that the data are of evidentiary quality. US-EPA agrees with the 100% data validation. Also, US-EPA requires for evidentiary (definitive) data, that a full data validation, which includes the examination and validation of raw data, be performed. Normally, a Level III validation does not fully examine laboratory raw data; but instead concentrates on case narratives, summary reports, etc. Considering the very limited number of analytes, and relatively small universe of samples, the 100% full data validation should be performed.
16. **Section B8.2 Data Validation, p. B8-1:** There is some potential for confusion in the validation process described here. The QAPP itself, as well as the laboratory SOPs both have tables that include QC limits and acceptance criteria. However, the SOP tables also have multiple sets of acceptance criteria, listed as En-Chem or SW-846 specific. It's not clear which one to use. Also, the text mentions that the National Functional Guidelines for Organic/Inorganic Review (modified for the specific analytical method), would be used for the validation process. Modified to use which acceptance criteria; to trigger what data flagging, and when? It is essential to have a clear understanding of which specific acceptance criteria and validation criteria will be uniformly used so there is no ambiguity on the usability and/or defensibility of the data. Please clarify.
17. **Section B8, page B8-1:** This section does not address nor does it provide reference to other sections of the QAPP or RAMP where required topics are addressed. Topics required by the Superfund QAPP Instructions, Element B8 not addressed in this section of the QAPP are Task A, Data Recording; Task C, Data Transformation/Data Reduction; Task D, Data Transmittal/Transfer; Task E, Data Analysis; and, Task F, Data Assessment. Revise Section B8 to either address these topics or provide specific references as to where this information can be found.

18. **Section C1.1.1, page C1-1:** This section addresses only the possibility of unannounced audits to potentially be performed by the Navy, but does not discuss any field audits to be performed by the project team. Revise this section to address field audits to be performed by the QA management personnel for this field investigation, or their designee, including audit responsibilities, frequency and procedures.
19. **Section C.2, page C2-1:** This section does not include all information required by the Superfund QAPP Instructions for Element C2. Revise the section to include a discussion of the contents of the final project QA report as well as clearly describe the QA/QC reports to be provided to U.S. EPA.
20. **Section C2 Reports to Management, p. C2-1:** There is no mention in this section if US-EPA will get any notification or reports of any QC issues, regardless of severity. US-EPA requests that it be informed in a timely manner of any significant laboratory nonconformances/analytical problems.
21. **Table C2-1 Summary of Reports, p. C2-2:** US-EPA requests that they be included as recipients for the Data Validation Report and Major Analysis Problem Identification Report, in addition to the specified Laboratory QC Report. In particular, what is to be the format and specific content of the Data Validation Report? It is essential to notify US-EPA in a timely manner of any major or persistent problems with analysis. In particular, any proposed changes that will alter agreed upon project plans/documentation such as the RAMP/QAPP, etc., or affect project DQOs must be discussed with US-EPA, preferably before they are implemented.
22. **Section D1.4.1 Reconciliation with DQOs, p. D1-3:** Is there to be some kind of output from this process, such as a report of findings and impacts? If so, US-EPA requests that they be listed as one of the recipients, and be informed of any significant findings.
23. **Section D2.2.2 Procedures to Validate Laboratory Data, p. D2-2:** It is unclear from this section as to the depth of or details for the data validation process. As mentioned in a previous comment, US-EPA strongly suggests a full data validation, including the examination of laboratory raw data, including chromatographs, etc., considering that project data is to meet evidentiary quality measures. US-EPA Region V also has a policy on the proper use of the technique of manual integration, and requires the validation of all manually integrated data. This validation is done to determine that the manual integration was necessary, was done properly, and was not performed solely to alter out-of-spec calibration/QC parameters, or to otherwise inappropriately manipulate analytical data. Is there a policy on manual integration (or an SOP) for this project? Please elaborate on the validation process.
24. **Section D3.2 Laboratory Corrective Action/Section D3.3 Corrective Action During Data Validation and Data Assessment, p. D3-1/2:** Please include in the text that US-EPA will be informed in a timely manner of any significant/major laboratory

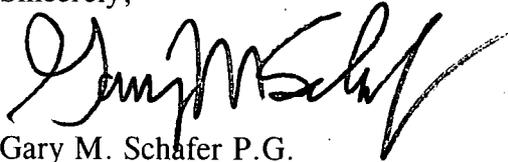
corrective action, including those discovered during data validation and data assessment.

APPENDIX A: SOP COMMENTS

25. **SOP G1-REC-7 Sample Receipt and Login, p. 3 of 6:** Text in Section 3.4.1 states that for all water volatile samples, bubbles are allowed, up to 6mm or “pinky fingernail” size. However, in the RAMP, Section 4.3.3.1 Sample Collection/Monitoring Wells, it clearly states that no samples are to be accepted that contain air bubbles, and that they are to be discarded and the sample retaken. US-EPA agrees that aqueous VOC samples containing air bubbles should not be acceptable in the field sampling, and in addition, nor should be acceptable as received by the laboratory.

Please place a copy of these comments into the Administrative Record for the site. If you have any questions concerning these comment or our review of this document, I can be contacted at (312) 353-8827.

Sincerely,



Gary M. Schafer P.G.
BRAC Team Leader
Federal Facilities Section
Superfund Division

cc: Mark Sladic TTNUS
David Douglas - MPCA
M. Chrystof