



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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JUN 10 1999

REPLY TO THE ATTENTION OF:

DW-8J

Mr. Tom Brent
Naval Surface Warfare Center
EPD, Code 095 B-3260
300 Highway 361
Crane, IN 47522-5001

Re: Revised Draft Work Plan/QAPP
Phase II Ground Water RCRA RFI
SWMU #30 - Landfarm

Dear Mr. Brent:

The United States Environmental Protection Agency (U.S. EPA) has reviewed the Revised Draft Work Plan and Revised Draft Quality Assurance Project Plan for Phase II Ground Water RCRA Facility Investigation Solid Waste Management Unit 30 (Landfarm) dated April 1999.

The U.S. Navy has done a commendable job in preparing these documents. As such, the deficiencies consist mainly of simple insertions, corrections, and clarifications of objectives. Attached you will find U.S. EPA's comments. Please revise the Work Plan and the Quality Assurance Project Plan to address these comments.

If you have any questions regarding this matter, please contact me at (312) 886-7890.

Regards,

A handwritten signature in black ink, appearing to read "Peter Ramanaukas".

Peter Ramanaukas
Environmental Engineer
WMB, IL/IN/MI Section

Enclosure

Filename: SWMU30 Draft Work Plan Phase II GW RFI NOD.wpd

cc: Core Team Members: Bill Gates, SOUTHDIV (w/ encls)
Christine Freeman, NSWG (w/o encls)
Phil Keith, NSWG (w/o encls)
Doug Johnson, CAAA (w/o encls)
E.P. Johns, SOUTHDIV (w/o encls)
Michelle Timmerman, IDEM (w/ encls)

Project Team Members: Allen Debus, USEPA (w/ encls)

NOTICE OF DEFICIENCY
Revised Draft Work Plan & Revised Draft Quality Assurance Project Plan
For Solid Waste Management Unit 30 (Landfarm)
Naval Surface Warfare Center
Crane, Indiana

A. Work Plan Comments

Comment 1:

Section 1.3: In the second paragraph on page 1-7 it is stated that only data from 1990 through 1992 were available for completion of the Work Plan although analytical data has been collected for the sludge since 1988. Please provide an explanation for the absence of additional data.

Comment 2:

Section 1.4 & Section 1.8: The second paragraph on page 1-13 presents a ground water sampling schedule for the five quarterly groundwater sampling events. This schedule has one sampling event set for late fall, one for mid-winter, and the remaining three events performed quarterly thereafter. This conflicts with Section 1.8 (Project Schedule) which shows the first sampling event taking place in June of 1999. Please revise the Work Plan to maintain consistency throughout.

Comment 3:

Section 1.5.1 & Figure 1-5: Due to staff changes at the U.S. EPA, please change the U.S. EPA representative from Carol Witt-Smith to Peter Ramanauskas.

Comment 4:

Table 2-2: On page 2-9 of Table 2-2, the analytical parameters for the trip blank of the third sampling round are shown to be the "Appendix IX VOC List as per Table 2-1". The analytical parameters for the trip blank of the remaining sampling rounds state only "VOC list as per Table 2-1". Table 2-1 references Table 1-2 in the QAPP which lists the specific analytes to be Appendix IX VOCs. Please revise Table 2-2 to correct this inconsistency.

Comment 5:

Section 2.6: The "Development and Purge Fluids" section on Page 2-15 states that "All development and purge fluids will be collected and stored on site....and ultimately discharged to the NSWC-permitted sanitary sewer system following appropriate IDW analysis." This language seems to imply that the IDW will be discharged to the NSWC-

permitted sewer system regardless of the analytical results. Please revise the Work Plan to clarify that the IDW fluids are not "ultimately discharged to the NSWC-permitted sanitary sewer system" in all cases.

Comment 6:

Section 3.4: This section shows *five* types of field samples defined, while Table 2-2 shows *four* types of QC samples. Please revise the Work Plan to correct this inconsistency.

Comment 7:

Health And Safety Plan Section 8.2: It is stated that site-specific training will include spill response procedures, while the documentation used (Figure 8-2) does not include this as part of the site-specific training elements. Please provide clarification and/or correction.

Comment 8:

Health And Safety Plan: Sections 9.0, 9.6, 9.8, and 9.9 contain references to B&R Environmental. Please correct these references to reflect the name change to Tetra Tech NUS.

Comment 9:

Health And Safety Plan Section 10.3: This section shows the IDW container volumes for the truck mounted tank and the fixed tank to be 250 gallons and 2,500 gallons respectively. However, Section 2.6 of the Work Plan shows these volumes as 300 gallons and 2,100 gallons. Please revise the Work Plan to maintain consistency throughout.

Comment 10:

Appendix C: In section 5.5, which explains how field measurements of groundwater will be performed, pertinent details extracted from the manufacturer's instructions for operating the field devices should be inserted. For instance, what are the buffer solutions used to "calibrate" the pH meter? When or how is it known that the specific conductance meter is running acceptably on the basis of a QC check? What are the manufacturer's recommendations for calibration of the dissolved oxygen meter or for recalibrating the probe on an "as needed" basis? For the turbidity measurement, it appears as if the batteries and calibration should be "checked" before going into the field. However, the instructions go on to explain that the device should be calibrated on a daily use basis which does imply a field calibration. Procedures for conducting these checks should be stated in the QAPP or workplan.

Comment 11:

Section 5.6.2 of Appendix C: On page 17 of 27, the well stabilization techniques previously outlined should be mentioned & inserted after item no. 8. (Also see pp. 19 to 20 in this section.)

Comment 12:

Appendix E: The instructions for use of the Hach testing device should be rewritten as a field SOP, incorporating all pertinent QC information.

B. Quality Assurance Project Plan Comments

Comment 1:

Section 1.1.1: On page 1-1, the overall objective is stated where we learn that the primary objectives are to determine both the presence & absence as well as extent of groundwater contamination associated with operation of SWMU #30. However, in section 1.4.3 on page 1-9, the risk element creeps in to the objective discussion. If it is actually intended to perform a risk assessment on the basis of this proposed sampling strategy then it should be clearly stated as such. My impression is that it is not intended to conduct a formal risk assessment, and that the "action levels" proposed in table 1-1 will be used to define "contamination" (i.e. "presence or "extent).

Comment 2:

Section 1.3.3: The term, "contamination" is used here, although it should also be precisely stated here what is considered as "contamination" on the basis of comparing analytical data sets to proposed action levels or other criteria.

Comment 3:

Section 1.4.1: There is really nothing in section 1.1 of the draft workplan that isn't already stated in section 1.1.1 of the QAPP. The difficulty is that in section 1.1.1 of the QAPP, the stated objectives are referred to as "overall project objectives", whereas in section 1.4.1 of the QAPP (i.e. section 1.1 of the workplan) they are referred to as "specific objectives". They can't serve as both. It would be appropriate to state the decision rules here or segue from the overall objectives to the decision rules to be applied to data sets such that the overall objectives (having something to do with defining "contamination" and extent) can be dealt with, each in turn. A decision tree flow chart would also serve the same purpose. I note also that there are apparently no associated risk assessment objectives.

Comment 4:

Table 1-1: Referring to the right hand column, second row, if "detected", will risk comparisons be made? Also, what is the rationale and objective for measuring hexavalent chromium in the field but not in the laboratory? Referring to the last row entry in the right hand column, is "extent" based on "detection", or will all data be compared to upgradient well data? If it is the latter then the proposed reporting limits for all parameters measured in wells should, respectively & ideally, be less than the footnote 3 values. Also referring to the same entry, how is "presence" or "extent" defined while factoring in the values referred to in footnote 3. A set of decision rules would clarify matters considerably. Finally, referring to the Quarterly list of parameters, is the parameter identified as "cyanide" intended to mean "total cyanide"? If so, is it anticipated that sulfide concentrations may be encountered.

Comment 5:

Section 1.4.2.2: The compound name "propionitrile" is spelled incorrectly. Note that the 5 rounds of sampling won't permit 4 seasons of sampling for all compounds. Certain compounds may be excluded from rounds 4 and 5 without benefit of 4 quarters of data to record seasonal variations. Should the risk-based levels be used as immediate comparisons and are they identical to footnote 3 levels (see table 1-1)?

Comment 6:

Table 1-2: In cases where no "target levels" exist, some decision rules should be devised such that it will be clear what actions will be taken if the parameter is detected or not detected. Evidently, because a risk assessment will not be performed, there is no apparent need for laboratory generated hexavalent chromium data.

Comment 7:

Section 1.4.3, page 1-12: Referring to the final "bullet", will this statistical study be performed to define the presence of contamination? How will this data reduction and reporting effect the determination of contamination "extent"?

Comment 8:

Section 2.0: This section is referred to section 1.5.1 of the Workplan. On page 1-15, Carol Witt-Smith's name should be replaced by Peter Ramanauskas. Please clarify the situation involving the State representative. In section 1.5.2 of the workplan, the individual who will perform internal field audits should be identified. Also the responsibilities of conducting independent data validation, deciding field corrective actions and performing data assessment should also be identified. In the 5th bullet under the TtNUS QA & QAM, note that from the EPA's perspective, the task of performing "external" audits is the Agency's. (And that task has already been fulfilled.) Change the

word "external" to "internal".

Comment 9:

Table 3-3: There is a typo. The method # for mercury should be changed to 7470.

Comment 10:

Section 3: How do the stated DQOs specifically link to any decision rules which can be formulated from overall objectives stated in section 1?

Comment 11:

Section 4: This portion of the QAPP is referred to section 2 of the workplan. In Table 2-2 of the workplan it is unclear how MS and MSD samples will be labeled for each sampling event. Referring to Table 2-3, for the parameter, Phosphorous (total and dissolved), a 24 hour holding time is recommended in EPA guidance ("Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79/020, March 1983). (This guidance may have been superceded by newer, modified guidance.

Comment 12:

Section 5.3: Details for the "Laboratory data deliverables" should be provided for the metals, organic and general water chemistry parameter groups.

Comment 13:

Section 8.2: In the first paragraph, it is stated that the identified subcontract laboratory is not yet under contract. If Laucks Testing laboratories isn't the laboratory cited in a proposed QAPP revision, then the entire QAPP will have to be modified accordingly, and another laboratory evaluation may be necessary depending on which laboratory is subcontracted for this project. In the second paragraph of this section, second sentence, page 8-1, change the word, "Several" to "All".

Comment 14:

Page 8-3: It would be much preferable to include all parameters of interest on the LCS list.

Comment 15:

Section 9.2.2, page 9-3: Is the data validation coordinator a Laucks employee, or someone who works independently of Laucks? This particular responsibility and title should be mentioned in the Project organization section of this QAPP.

Comment 16:

Section 9.2.2, pp. 9-3 to 9-4: Note that validation methods for explosives are not included in the referenced documents. Please define how validation will be conducted for non-CLP parameters. Also, referring to the last sentence of this section, note that on page 9-2 it is stated that a "Z" flag qualifier will be indicated for this condition (instead of a "JN" flag). Which will it be?

Comment 17:

Section 9.3.1: In the first paragraph, please also include a reference to hexavalent chromium and also insert the word, "oxygen" following "dissolved".

Comment 18:

Section 10.1.1.3: In the first bullet note that the Appendix B should be modified to reflect the proposed sampling activity. After reviewing the audit checklist, it appears not well focused for this particular study.

Comment 19:

Section 10.2.2.1: It can be mentioned here that the U.S. EPA Region 5 has recently audited the Laucks Testing Laboratory for another related U.S. Navy Crane project, and that there was a favorable outcome.

Comment 20:

Section 11.1: This section is deficient in that a table of available spare parts for sampling equipment and frequency of maintaining them should be presented.

Comment 21:

Section 13.3: Add the word, "resampling" after the word, "rework".