



DEPARTMENT OF THE NAVY

CRANE DIVISION  
NAVAL SURFACE WARFARE CENTER  
300 HIGHWAY 381  
CRANE, INDIANA 47522-5000

N00164.AR.000547  
NSWC CRANE  
5090.3a

IN REPLY REFER TO:

5090  
Ser 095/0113

25 MAY 2000

U.S. Environmental Protection Agency, Region V  
Waste, Pesticides, & Toxics Division  
Waste Management Branch  
Illinois, Indiana, and Michigan Section  
Attn: Mr. Peter Ramanauskas (DW-8J)  
77 West Jackson Blvd.  
Chicago, IL 60604

Dear Mr. Ramanauskas:

Crane Division, Naval Surface Warfare Center (NAVSURFWARCENDIV Crane) submits for review and approval, as enclosure (1), the Revised Draft Interim Measures (IM) Workplan for Mine Fill A Battery Site, dated May 2000. Enclosure (2) is the required certification statement.

NAVSURFWARCENDIV Crane point of contact is  
Ms. Christine D. Freeman, Code 09511, telephone 812-854-4423.

Sincerely,

*Phillip Keith, for*

JAMES M. HUNSICKER  
Director Environmental Protection  
Department  
By Direction  
Of The Commander

Encl:

- (1) Revised Draft IM Workplan for Mine Fill A Battery Site
- (2) Certification Statement

Copy to: (w/o encls)  
ADMINISTRATIVE RECORD  
IDEM (D. Griffin)  
SOUTHNAVFACENGCOM (Code 1864)  
TOLTEST Crane

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**WORK PLAN**

**General Comment:**

The Work Plan and the SAP have undergone major revisions, the SSHP and QAPP to a lesser extent. Replacement pages will not be issued since an entirely new WP (with appendices and attachments) will be submitted with pages printed front and back.

**Comment 1:**

Section 1.1, page 2: The site description section should include a specific description of the battery dump site area itself in addition to the general Naval Surface Warfare Center (NSWC) overview. Historical information about the site should be provided. Other descriptive information includes, but is not limited to: detailed descriptions of how/when the batteries were dumped, what types of batteries are known/suspected to be present at the site, potential contaminants from the batteries, estimated quantities of waste at the site, the potential for these wastes to be discovered as listed or characteristic. This section should also include a detailed discussion of the soil pile area relating all currently known information.

**Resolution 1:**

The requested information on site description and history has been inserted.

**Comment 2:**

Section 1.2, page 2: Insert an explanation of Figure 2 including descriptions of the soil pile and battery disposal areas (i.e. pertinent background information, size of disposal areas, etc...)

**Comment 3:**

Section 1.3, page 2: Add information and discussion about surface water drainage patterns in the area (including maps), underlying groundwater aquifers, and site soil types.

**Resolution 2 & 3:**

Sections 1.2 and 1.3 have been combined and renamed Site Physical Characteristics. Descriptions of the area including surface drainage and groundwater information has been included.

**Comment 4:**

Include an Organizational Chart showing the relationships between all involved agencies and personnel.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Resolution 4:**

A Project Organizational Chart has been included as Figure 3.  
Discussion of the chart is included in the text.

**Comment 5.**

Section 3.0: this section should include a description of the Scope of Work of the Interim Measure.

**Resolution 5:**

The Scope of Work has been added.

**Comment 6:**

Section 3.1, page 6: Add notification information describing types of notifications and who is to be notified in each instance (e.g., clearing, trenching, emergencies, etc...).

**Resolution 6:**

This information has been added.

**Comment 7:**

Section 3.2, page 6: What is the source of and rationale behind the cleanup levels in Figure 4? This should be explained in detail here. What is the rationale for choosing these constituents (see also Comment 27)? Since there is apparently no historical information regarding contamination at this site, the characterization sampling should include full 40 CFR Part 264 Appendix IX constituent list with appropriate DQO detection limits so that confident decisions may be made to eliminate constituents that meet screening levels. Samples should also be tested to determine if they exhibit hazardous waste characteristics. Individual chemical constituents may be eliminated from further consideration by comparison of each site-specific constituent concentration to a pre-determined risk-based screening level. Risk-based screening of chemical constituents in soil may be conducted using the "generic" soil screening levels (SSLs) listed in Appendix D of the Region 5 Model QAPP.

The sampling plan proposed is in need of refinement. The design of the sampling plan should address the rationale behind the sampling type chosen. Composite samples cannot be used for VOC analysis (see also Comment 18). Because the nature and extent of contamination at these areas is relatively unknown, the sampling should be done using systematic grid sampling with discrete (grab) samples to provide greater indication of locally contaminated zones and hot spots. This includes the soil pile. Provide explanation of how

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

the vertical and horizontal extent of contamination will be determined. The sampling plan should address surface and subsurface sampling and identify the sampling intervals and depths. The rationale for the number and location of background samples should be discussed. Background soil samples must be from areas of similar soil type as found in the areas of the screening samples. They should be taken in natural, undisturbed soil of the same horizon and depth of the screening samples. How will the sampling spots be marked and found in the field?

Update all figures to reflect changes made to the sampling approach.

**Resolution 7:**

The Work Plan and Sampling Plan have been considerably modified based on this comment and discussions with EPA and Crane EPD. The revised sections more clearly define sampling and analysis rationale, cleanup criteria, and background sampling. Figures have been revised as necessary.

**Comment 8:**

Section 3.4, page 7: It should be stated what types of samples will be taken here. Provide an explanation of the rationale behind the sampling number, type, and locations. How will these sample locations be marked and found in the field? Wall samples should be added to the soil pile area if that area is shown to require excavation through pre-excavation sampling and contamination delineation. Provide an explanation of the approach taken if confirmation sampling reveals additional contamination in the floor and/or wall samples.

**Resolution 8:**

Again, revisions to the plan should clarify this issue. Post-excavation sampling is not discussed in Section 3.6.

**Comment 9:**

Section 3.6, page 8: Will there be any clean top soil added prior to seeding?

**Resolution 9:**

Backfill is not planned initially since excavation is not expected to exceed one foot in depth. If post-excavation analysis indicates contamination remains after initial excavation has been completed, then ToITest will contact OICC and EPD for further direction.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Comment 10:**

Section 3.8, page 8: Any wastes generated as a result of remediation operations should be managed according to a prepared Waste Management Plan.

**Resolution 10:**

Section 3.5 now discusses waste management and disposal activities.

**Comment 11:**

Section 4.0, page 9: Include compliance with 40 CFR part 261 for waste characterization and Part 262 Subparts B and C for waste accumulation, packaging, labeling, marking, placarding, and manifesting.

**Resolution 11:**

This information is now included in Section 3.5.

**Comment 12:**

The Work Plan should include a detailed description of decontamination activities above and beyond what is found in Section 5.2 of the Site Safety and Health Plan (SSHP). There should be discussion of equipment decontamination procedures, contamination minimization, personnel decontamination, sampling equipment decontamination, etc.

The Work Plan should also include a "References" section identifying all reference documents used in the preparation of the Work Plan, QAPP, SAP, etc.

**Resolution 12:**

Decontamination procedures are now included in Section 3.8.  
A reference section will be included in the plan.

**SITE SAFETY AND HEALTH PLAN**

**Comment 13:**

Section 4.1 & 42, page A-8: Add an example of a Daily Safety Log and a Machinery and Equipment inspection log as attachments to the SSHP.

**Resolution 13:**

A copy of the Daily Safety Log and the Machinery Inspection Form will be included as Attachments B and C respectively to the SSHP.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Comment 14:**

Section 5.3, page A-11: As this is a wooded area, are there any insect, animal, or plant hazards expected on the site?

**Resolution 14:**

These are potential hazards and they have been addressed in Section 5.3.3.

**Comment 15:**

Section 5.4, page A-16: Verify the Regional USEPA Emergency phone number (the 910 area code is in North Carolina). Note that the Regional Chemical Accident Response National Response Team phone number (contact Richard Karl) is (312) 353-9295.

**Resolution 15:**

The Emergency Telephone Numbers list has been revised.

**Comment 16:**

The SSHP should include a discussion of the required training for field personnel as well as a sample of field personnel training documentation signature sheets.

**Resolution 16:**

Field training has been included in Section 3.7. Daily safety training is documented on the Daily Safety Log.

**SAMPLING AND ANALYSIS PLAN**

**Comment 17:**

Section 1.6, page B-2: Note that in terms of content, submitted data packages should correspond to CLP level IV, applied to the reporting of all proposed RCRA parameters. The "clean closure" objective should be translated into the interim measure objective which is of concern. Will interim measures be accomplished by administering clean closure? If so, this should be clearly stated. The purpose of "demonstrating compliance" doesn't read like an interim measure sort of objective.

**Resolution 17:**

The requirement for CLP level IV data packages has been added. The "clean closure" objective has been changed to reflect that closure will be attained when cleanup goals are met.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Comment 18:**

Section 1.7, pages B-2 to B-3: It should be noted that soil samples intended for VOCs analyses should NOT be composited. What depths will samples be taken from during the pre-excavation phase of sampling? What levels of respective contaminants will trigger the need for excavating in soil and grid spaces. What is the source and rationale for selected cleanup levels?

**Resolution 18:**

The sampling plan has been changed dramatically. The error concerning VOC composite samples has been corrected, and the sampling depths for pre and post-excavation sampling have been clarified. Cleanup goals specific to this site have been established. These goals were based on consultations with Region V EPA and Crane EPD

**Comment 19:**

Section 1.8, page B-3: Is TCLP data only intended for use in characterizing soil for disposal? Is TCLP data to be compared to "excavation" trigger levels to base field decisions, and later, to "cleanup levels"? Note that for VOCs, the sample collection and analysis procedure should conform to SW-846, method 5035. How much soil will be excavated if the pre-excavation levels are triggered through analyses.

**Resolution 19:**

The purpose for TCLP analyses is for disposal characterization only. Cleanup goals will be either background levels or soil screening levels, as the revised text explains. All VOC samples will be obtained with EnCore samplers and analysis will conform to method 5035. Excavation boundaries will be determined by pre-excavation sampling analysis. Initial excavation will be approximately one to two feet deep.

**Comment 20:**

Table 1.0, page B-4: there should be a set of decision rules or a decision "tree" added that explains what the objective happens to be for collecting certain parameters for analysis down to a particular level. Or, this information could be added to the 4<sup>th</sup> column of the table.

**Resolution 20:**

The intent of this comment is unclear, however decisions based on analytical results are explained in the text.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Comment 21:**

Section 2.1, page B-5: the SSHP is incorrectly referenced throughout this section as being found in Appendix B of the Work Plan. Also, the SSHP should include a description of the required training as shown in this section (see SSHP Comment 16).

**Resolution 21:**

The references to the SSHP have been corrected, and the training requirements have been included in the SSHP.

**Comment 22:**

Section 3.7, page B-9 and Section 4.0, page B-12: These sections incorrectly reference Appendix D of the Battery Site Work Plan.

**Resolution 22:**

These references have been corrected to refer to Appendix C of the Work Plan.

**QUALITY ASSURANCE PROJECT PLAN**

**Comment 23:**

Section 3.2, page C-3: It should be explained who will perform independent data validation of laboratory data. (If this exists in another section of the QAPP, or work plan, then this specific section could be referenced.)

**Resolution 23:**

A reference to Section 10.2.2 has been inserted.

**Comment 24:**

Section 3.2.2, page C-4: The specific QA responsibilities of the field team members should be presented more adequately. Also, the address(es) to which samples will be shipped should be stated in this section.

**Resolution 24:**

The responsibilities of the field members are included in Section 3.3, and the address of the lab is included in Section 3.2.

**Comment 25:**

Table 1.0, page C-8: Which specific TCLP and "totals" parameters will be reported for each phase of this project? Note that there are only two explosives on the TCLP list, and it is unclear if these will be

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

reported using the 8270 SVOC test analysis or the 8330 explosives analysis for 2,4DNT. There is no TC criterion for other explosives compounds. The explanation of parameters mentioned in this table is rather confusing. The QAPP writers should ponder what can be done to clarify the table. Also, what is meant by the term, "pre-excavation/disposal"? Do they mean, "pre-excavation & disposal"?

**Resolution 25:**

Table 1.0 has been revised to clarify the analytical parameters which apply to pre-excavation site characterization samples.

**Comment 26:**

Section 5.0, page C-9: Note that the TCLP explosives are listed here. How does this relate to table 1.0, and to the analyses that will be performed? Is the total analysis meant only for pre-excavation data? What sort of field observations will be performed? Certainly it would be appropriate to conduct immunoassay tests for explosives and XRF for metals, if the objective can be defined.

**Resolution 26:**

The sampling scheme and rationale have been dramatically changed and the revised text reflects this. If the soil in the soil area is determined to be contaminated with explosives, then the soil will be processed through the Biofacility. In this case, immunoassay testing would be a normal part of post-excavation testing. No XRF was discussed or planned for this project.

**Comment 27:**

Section 5.0, page C-9: What is the source of cleanup levels alluded to in this section, and what is the rationale for the target compound list shown in the workplan, figure 4.0? (See also Comment 7).

**Resolution 27:**

Cleanup goals have been revised and a reference is now made to Section 2.5 of the SAP for a detailed discussion of cleanup goals.

**Comment 28:**

Section 8.0, page C-13: Note that many of Quanterra's methods are post-1990 methods.

**Resolution 28:**

The meaning of this comment is unclear, however the reference to SW-846 has been revised in the text.

**COMMENT/RESOLUTION TO THE MINE FILL A BATTERY SITE CLEANUP  
WORK PLAN, QAPP, SAP, AND SSHP DATED NOVEMBER 1999**

**Comment 29:**

Section 9.2, page C-14: Insert the term, "VOCs" before the word samples, in the paragraph devoted to Trip blanks. Also, it should be noted that MS/MSD samples are intended for organic analyses. What are the acceptance criteria for the internal QC checks mentioned in this section?

**Resolution 29:**

The term VOC has been added, and the reference to organic analysis for MS/MSD samples has been made. The acceptance criteria used by the lab are described in Section 7.2 and in Quanterra's Quality Control Program (included as Attachment C). A reference to this section has been made in the text.

**Comment 30:**

Section 10.2.2, page C-18: What qualification flags will be used to qualify data in the Interim measures report?

**Resolution 30:**

The qualification flags have been added to the text.

**Comment 31:**

Section 10.3.2, page C-19: There should be discussion of any corrective action that was taken included in the Case Narrative. For the chemistry data package, the raw data should be made immediately available to the U.S. Navy Crane, in case it is required for review by the U.S. EPA.

**Resolution 31:**

The text now reflects that corrective action will be included in the Case Narrative, and that the raw data will be made available for review.

**Comment 32:**

Section 11.0: The QAPP writers should provide any relevant information concerning Quanterra's status with respect to Agency environmental audits, including any Performance evaluation data they may have reported.

**Resolution 32:**

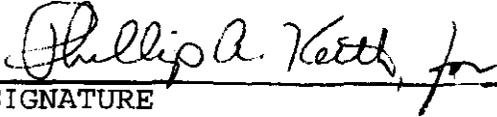
At the request of the EPA, TolTest provided the EPA with Performance Evaluation data for metals from Quanterra. Other PE data will be made available upon request.

5090  
Ser 095/0113

25 MAY 2000

The letter Ser 095/0113 was for the  
submittal of Revised Draft Interim Measures  
Workplan for Mine Fill A Battery Dump Site.  
The Revised Draft submitted 02/02/01  
replaced this workplan.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



SIGNATURE

DIRECTOR, ENVIRONMENTAL PROTECTION DEPARTMENT  
BY DIRECTION OF THE COMMANDER  
TITLE

23 MAY 2000

DATE