CONTECH

7309 Indian School Rd., N.E., Albuquerque, NM 87110

NM-95-JA-54
June 5, 1995

Commanding Officer
NFESC ESC413JW
Attn: Judy Whitson
560 Center Drive
Port Hueneme, CA 93043-4328

RE: Project Specific Review; N47408-94-D-3009; DO# 0011

Dear Ms. Whitson:

A project specific review of the *Work Plan for Melville North Landfill* located at the Naval Education and Training Center (NETC) in Newport, Rhode Island was prepared in accordance with Navy QA requirements. The findings of this review are contained in the attached letter report. This project will meet the Navy's requirements upon successful implementation of included recommendations.

Ceimic Laboratory located in Narragansett, RI has been selected to perform laboratory analytical services for this project. A laboratory capability / capacity assessment of Ceimic is presented as a second attachment to this letter.

If you have any questions regarding our findings, please do not hesitate to contact me or Dee Blake at (505) 881-2338.

Respectfully,

Janine S. Arvizu
Consolidated Technical Services

DOB

attachments

cc: Debbie Carlson, NORTHDIV
Todd Bober, NORTHDIV
Paulette Peterson, NAVFACCO (w/o attachments)

PROJECT SPECIFIC REVIEW
under
Contract Number N47408-94-D-3009
Delivery Order 0011

of

WORK PLAN
FOR
MELVILLE NORTH LANDFILL
NEWPORT, RHODE ISLAND

Prepared by:

Consolidated Technical Services, Inc.
6301 Indian School Road, NE
Albuquerque, NM 87110

June 5, 1995

EXECUTIVE SUMMARY

Discussion of Project

Statement on clarity: The definition of the project and level of detail to which this document is prepared are appropriate for the anticipated users. The document is well organized yet includes distracting grammatical errors. Several references in the text to appendices listed in the Table of Contents are incorrect.

Statement on completeness: This planning document appears adequate for the scope of work described.

Recommendation: Document criteria for evaluating the performance of subcontractors.

Summary of technical issues: Several concerns impacting the success of this project are identified in the work plan. The following recommendations should be addressed.

Recommendation: Develop Data Quality Objectives (DQOs) for this project.

Recommendation: Define the rationale for conducting a 90-day testing period to evaluate tidal influence.

DOCUMENT CLARITY

A. Target Audience

This work plan should be written for an audience level that includes the RPM, CTO, staff members at HNUS and any subcontractors. Accordingly, the level at which this document is prepared is appropriate for the audience.

B. Established Format

Pagination: Page numbering by section is included in the document footer. This appears to be consistent with the Table of Contents information.

Legibility: Figures and Tables are legible and easily reproducible.

Diagrams/Flow charts/Tables: Figure 4-4 contains a redundancy (SS-22) in the location of a proposed surface soil sample.

Quality of document organization/flow (include appendices): The flow of information in this work plan is developed logically for the intended audience.

Referencing within document: The following errors were distracting and confusing to the reader:
- reference to "Site 2" throughout the list for sample location and rationale (p. 3-7 through 3-10)
- "Sample collection equipment shall be decontaminated prior to use and between each sample location, as specified in Section 4.6." [NOTE: This should read Section 4.7.]
- references to Attachment G (p. 4-36 and 4-37) should be to Appendix B
- "All sample collection and monitoring methodology are presented in Appendix B of Volume III of this Work Plan." (p. 5-13) [NOTE: This may pertain to Appendix C of this document.]

Consistency: No additional comments.

C. Spelling/Grammar

Grammatical errors are distracting to the reader and can interfere with understanding the subject under discussion.

COMPLETENESS OF PROJECT

A. General Findings

Numerous subcontractors are scheduled to work on this project. The Quality Assurance Manager (QAM) has the responsibility to "monitor compliance of the project with the QAPP plan, and perform any necessary performance or system audits." While Standard Operating Procedures (SOPs) are presented in Appendix C of this document, the following recommendation is made to assure the successful oversight of this project.

Recommendation: Document specifications and performance criteria for evaluating the subcontractors, and define the frequency and scope of performance or system audits.

B. Non-Technical Issues

The titles, names, and responsibilities of personnel assigned to the project are discussed in Section 5.2 of the report. The education, training, and years of experience for each person are not addressed.

TECHNICAL ISSUES

A. Technical Flaws of Project (Critical, Major, Minor)

1. Section 3.2.2 of the Work Plan compares Data Quality Objectives (DQOs) with NEESA classifications (*i.e.*, Level I, II, C, D, and E). And, as stated "The combined use of these data quality objective levels will satisfy the data requirements of site characterization, risk assessment, and feasibility study activities." This is not correct. DQOs are a full set of constraints needed to design a study which include a specification of the level of uncertainty that a data user is willing to accept in the decision. DQOs do not correspond to NEESA QC classifications. (*critical*)

Recommendation: Develop Data Quality Objectives.

2. As stated in Section 4.2.10, "HNUS will conduct a three month groundwater elevation monitoring program on three site will (*sic*) clusters to determine if such a tidal influence exists." No rationale is presented to support the use of a 90-day testing period. (*major*)

Recommendation: Define the rationale for conducting a 90-day testing period to evaluate tidal influence.

B. Detailed Findings (table with page reference, issue, and comment)

TABLE OF TECHNICAL FINDINGS		
Section/ Page	**Statement or Issue identified in the document**	**Comment**
s. 3.2.1, p. 3-7	Sampling location and rationale	What is the statistical approach to this sampling design?
s. 4.2.1.2, p. 4-3	Subcontractor mobilization / demobilization	What criteria are used to evaluate the performance of the subcontractors? What QA procedures must be followed?
s. 4.2.2.1, p. 4-4	"Should it be deemed necessary by the HNUS Site Supervisor, up to 10 additional survey points..."	The approach appears to be driven by the cost of sampling rather than the need to achieve the project objective of delineating "areas of elevated concentrations of soil gas".
s. 4.2.2.3, p. 4-5	"Soil gas samples will be analyzed...on a laboratory grade gas chromatograph (GC)...samples will also be run simultaneously through an electron capture detector (ECD) for chlorinated compounds typically contained in industrial solvents, following modified (for soil gas) EPA Method 601 procedures."	1) A PID should be specified in the GC for BTEX analyses. 2) The 'chlorinated compounds typically contained in industrial solvents' should be specified.
s. 4.2.2.3, p. 4-5	"Between all sample injections (including unknowns)..."	What is meant by 'including unknowns'?
s. 4.2.4.7, p. 4-15	"Three locations in the wetlands will be chosen for sediment sampling."	What is the statistical basis for selecting three locations?
s. 4.2.4.7, p. 4-16	"The soil will be mixed to obtain a representative sample."	This is not appropriate for VOAs. [NOTE: Other sections of the report address collection of VOA samples correctly.]
s. 4.3, p. 4-34	labeling of quality control blanks	The 'type of QC sample' code location allows for a four alpha field. Yet, one example contains a two-character field. Also, no abbreviations are provided for the 'type of QC sample' that may be used.
s. 4.7.2, p. 4-38	9-step decontamination sequence for non-disposable sampling equipment	Eliminate step 7 which states "rinse with distilled water (analyte-free)."
s. 4.8.3.1, p. 4-42	"If characterization ... indicates that the drummed drill cuttings from that boring are hazardous, the drummed IDW materials will be transported ... for treatment..."	Where and how will drums be stored pending transport off-site?

TABLE OF TECHNICAL FINDINGS		
S ction/ Page	**Statement or Issue identified in the document**	**Comment**
s. 5.9.3.6, p. 5-34	laboratory control charts	This description of control charts is incorrect as stated.
s. 5.11.2/3, p. 5-36	procedures for accuracy and precision	The reference for precision and accuracy procedures is for determination of organics only.
s. 5.12.2, p. 5-38	"Operator oversight is best avoided by having field crew members audit each others' work before and after a test."	How do you audit something before it occurs?
s.6.2.3, p. 6-3	"The file will be able to be locked during non-business hours."	Will the file be locked? Does HNUS have a document control procedure?
s. 6.4, p. 6-4	"A description of the outline of the Remedial Investigation Report is provided below and an outline..."	The RI Report outline is not 'provided below'.
s. 7.2.3, p. 7-3	"For nondetected results, one-half of the reported quantitation limit will be used as the sample result."	This may not be a valid approach for statistical processing of data below detection limits. Provide justification for this approach.
Appendix B	HNUS Form 0024: Daily Activities Record - Field Investigation	What does 'Level B' mean? NEESA 20.2-047B does not specify a Level B.
Appendix B	HNUS Form 0015: Sample Log Sheet - Solid Phase	This form should include fields such as meteorological conditions, temperature, and required variations from the plan.

LABORATORY CAPABILITY / CAPACITY ASSESSMENT

Identification:

Ceimic Laboratory (Ceimic) in Narragansett, Rhode Island was selected to provide laboratory analytical support for the Melville North Landfill Site located at NETC, Newport. An on-site evaluation of Ceimic's facilities was conducted in February 1995 as part of the NFESC laboratory evaluation program. Comments pertinent to the laboratory's capability and capacity are addressed in the following sections.

Capability:

Ceimic has the capability to perform full Target Compound List (TCL) and Target Analyte List (TAL) analyses for water and soil/sediment samples as required in the Work Plan for the Melville North Landfill project. Ceimic also has the capability to perform EPA methods for BOD, COD, and TSS analyses as defined in Table 4-1 of the Work Plan and other special analytical services for TOC and SEM.

Capacity:

The laboratory in Narragansett has 10 GCs, 10 GC-MSs, 3 ICP (seq/sim), and 2 GFAA instruments as well as Hg, IR, and HPLC capability. This is more than enough instrumentation capacity for the subject samples.

Lab Evaluation Schedule:

The Ceimic on-site audit was conducted by Contech on 12-14 February 1995. With an 18-month cycle as the basis for scheduling laboratory evaluations, the next evaluation of Ceimic Laboratory will be in August 1996.

Last Performance Sample:

Performance Evaluation (PE) samples were analyzed during the December 1994 time period. Ceimic's performance was acceptable during the first round for all fractions including TAL metals, TCL volatile and semi-volatile organic compounds, and TCL pesticides/PCBs. The CLP data package prepared by Ceimic met NEESA requirements.

Change in Personnel:

N/A

Change in QA:

The deficiencies noted by Contech during the laboratory evaluation process of Ceimic Laboratory included the QA Plan. All issues and deficiencies identified during the evaluation currently are being addressed.

Sample Receipt:

The sample management procedures followed by Ceimic Laboratory are adequate for addressing sample receipt requirements.