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RESPONSE TO SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL
CONTROL COMMENTS ON DRAFT COMPREHENSIVE CORRECTIVE MEASURES STUDY
PROJECT MANAGEMENT PLAN AND WORK PLANS DATED 31 JANUARY 1997 CNC
CHARLESTON SC
6/25/1997
ENSAFE/ ALLEN AND HOSHALL



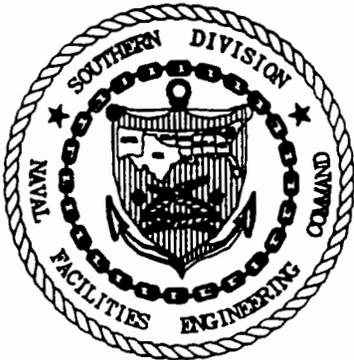
**RESPONSE TO COMMENTS FOR
DRAFT COMPREHENSIVE
CORRECTIVE MEASURES STUDY
PROJECT MANAGEMENT PLAN AND
WORK PLANS
DATED JANUARY 31, 1997**

**NAVAL BASE CHARLESTON
CHARLESTON, SOUTH CAROLINA
CTO-029**

CONTRACT NUMBER: N62467-89-D-0318

Prepared for:

**DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SOUTH CAROLINA**



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**Response to Comments
Charleston Naval Base
Draft Corrective Measures Study
Project Management and Work Plans
Dated January 31, 1997**

**Comments - SCDHEC
Responses - E/A&H**

Comprehensive CMS Project Management Plan (Volume I)

Comment 1:

The copies of the Comprehensive CMS Project Management Plan and Work Plan sent to the Department should be signed and certified in accordance with condition I.F. of the RCRA permit issued May 4, 1990. The Comprehensive Corrective Measures Study Project Management Plan and the Work Plan should be signed, when the final version of these documents are received by the Department.

Response 1:

Concur. The final copies of the Comprehensive CMS Project Management Plan (PMP) and Work Plan (WP) will be signed and certified in accordance with condition I.F. of the RCRA (Resource Conservation and Recovery Act) permit issued May 4, 1990. The revision of the PMP and WP constitutes a transition from draft to final document and thus the final copies will be signed and certified by the Commanding Officer, Caretaker Site Office, Charleston Naval Base to satisfy regulatory requirements, and by the E/A&H Task Order Manager to satisfy Navy contractual requirements.

Comment 2:

Section 1.1, Purpose of the CMS. The purpose of the Corrective Measures Study (CMS) is to identify, screen and evaluate potential remedial options for a confirmed release in a site or group of sites. If a site moves to the CMS phase of the corrective action process, it is because it has presented an unacceptable risk to Human Health and the Environment. Therefore, the CMS should evaluate at least one possible applicable alternative (when streamlined) for the problem identified at the site.

The No Further Action (NFA) recommendation will not be applicable at the CMS stage of the corrective action process. The decision of NFA would have been made at the end of the RCRA Facility Investigation (RFI) phase, when the RFI report recommends either a NFA or a CMS. The NFA recommendation is not a viable option during the CMS phase.

In the case where a site is proposed for an industrial land use, the CMS would analyze, as a minimum, appropriate institutional controls to be implemented at the site. If the proposed institutional controls are accepted, they would still include monitoring, inspections, etc., which are further actions required at the site. Therefore, No Further Action (NFA) is not a viable option for CMS alternatives.

Response 2:

Concur. It was the intent of E/A&H to use the term “NFA” to mean “no further active or traditional or invasive or treatment-type remedial action.” Under this definition, NFA could refer to passive remedial action such as engineering or institutional controls. Unintended miscommunication of the term is apparent; therefore, the term will be used only when no action of any type (eg, active or passive) is required for the subject site. The PMP and WP have been revised to reflect this change in definition and NFA references have been deleted. Where applicable, NFA only will be used to indicate a “walk away” approach to site remediation.

Comment 3:

Section 1.3, Voluntary Acceleration of Cleanup Program. The third paragraph of this section is confusing. It reads “the acceleration cleanup process is not reflected in the permit modification submitted to SCDHEC.” It is not clear what this phrase makes reference to. This paragraph should be expanded and/or modified to clarify its meaning.

The same paragraph states that a permit modification “may be” required at the end of the Corrective Measures Study (CMS) going into the Corrective Measures Implementation (CMI). It should be clarified that the corrective action process requires a permit modification once the remedy selection is made. This permit modification should include supporting documentation for the remedy selection.

Response 3:

Typically, RCRA permit modifications are required prior to commencement of certain types of corrective actions that are usually defined by the appropriate regulatory authority (eg, SCDHEC). Voluntary cleanup activities by the Environmental Detachment are presently underway at Charleston Naval Base. These cleanup activities are being conducted as interim/stabilization measures as provided under OSWER Directive 9902.3-2A, May 1994. Upon completion of the CMS, supporting documentation will be presented and a request for a permit modification will be made to the lead agency. The permit modification is

required subsequent to remedy selection and prior to remedy implementation. The third paragraph has been revised to reflect this information.

Comment 4:

Table 1.1 should be updated with the most recent available information at the time the final version of this document is produced.

Response 4:

Concur. Table 1-1, Voluntary Cleanup Activities Conducted by Environmental Detachment, has been updated to reflect current status of completed, active, and planned voluntary cleanup actions as of this writing.

Comment 5:

Section 2.2, Zone-Specific Work Plans. This section should state that an outline for the presentation of the CMS Report will be also included in the Zone-Specific Work Plan. This outline will help to visualize how the results of the Zone-Specific CMS Work Plan will be used and presented.

It is also suggested to present the Zone-Specific Work Plan elements in an outline format first, and then each element expanded in the text. This approach will provide a better flow in the reading and better understanding of the elements being considered for a CMS Work Plan.

Response 5:

The Comprehensive CMS PMP has been revised to reflect the first request of this comment. The second request will be implemented in the introductory structure of the Zone-Specific Work Plan by way of table of contents, headings, and subheadings.

Comment 6:

Section 2.2.1, Defining the Zone-Specific CMS Work Plans. This section states that an evaluation taken in consideration of risk, land use, etc., will be used to assess the No Further Action (NFA) alternative as an option. Again, refer back to comment 2. CERCLA and the NCP

requires an evaluation of the NFA alternative during the CMS. RCRA does not contemplate NFA as a viable option in the Corrective Measures Study.

Until a remedy is selected, implemented, and residential protective cleanup levels achieved, a site can not be deemed NFA.

Response 6:

Please refer to response for Comment 2. The paragraph pertaining to this comment within Section 2.1.1, Defining the Zone-Specific CMS Work Plans, has been deleted.

In regard to CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) studies, a “no action” alternative is presented during the assembly of alternatives of a Feasibility Study (not a CMS as stated above, though the two processes are essentially the same). The “no action” alternative is the same as NFA and is used to establish a baseline of potential human health and environmental impacts from a site that is not acted upon (eg, does not receive remedial attention). All other potential remedial alternatives are evaluated and compared to this “no action” baseline. As stated in comment 6, RCRA does not use a “no action” or NFA alternative as a baseline.

Comment 7:

Section 4.3.3, Control of the Sources of Releases. This section should also explain that when a source control measure is proposed, the proposal will discuss technical limitations for achieving an effective source control and the possible need of combining different measures to achieve a protective source control remedy. Section 4.3.3 should be modified to include this information.

Response 7:

Technical limitations and multiple control methodologies (eg, the use of more than one method to affect source control) are typically discussed in the CMS effort, as needed. The document has been revised to reflect this request.

Comment 8:

An additional section should be included at the end of section 4.0 of the Project Management Plan, following section 4.4 “Ranking of the Corrective Measures Alternatives”. After the ranking

of the alternatives, this section should describe the final steps for the selection of a remedy that will be implemented at a site or group of sites.

The Navy may recommend a preferred alternative (s) with supporting rationale and justification, in the Corrective Measures Study (CMS) Report.

After all considered alternatives have gone through the evaluation process, using a "weighted criteria value," and have been ranked, then the decision process starts and the final preferred remedy or group of remedies is selected by the implementing agency SCDHEC.

The selected alternative(s) will be proposed in the Statement of Basis that should go through a public comment period. Public comment may influence changes to the selected corrective measure(s). Additionally, the public may request a public meeting where additional comments may be received and considered. A Final Decision and Response to Comments will be developed by SCDHEC to document the selection of the corrective measure(s).

Response 8:

Section 4.5, Remedy Selection, has been added to the document in response to this comment. Section 4.5 describes the selection process, public involvement, and SCDHEC's leading role in final remedy defense and selection.

Comment 9:

Section 5.0, Treatability Study Procedures. This section indicates that first the need for a treatability test should be established before conducting one. Within this basic principle on page 5-1 should be added as the first bullet that the first step is to evaluate if the existing site data is enough and the uncertainties are acceptable to select a remedial alternative. If the answer is "no", then we can evaluate available treatability data from literature and other sources.

The second and third bullets are more related to specific site/data available information. These two bullets evaluate data needs related to specific site/contaminant characteristics. Thus, these two bullets could be grouped under one bullet that analyzes "data needs" that comes into play once it has been determined that the existing site data and available outside data is not sufficient to choose a remedial alternative and therefore a treatability study is needed.

All the identified data needs should provide enough support for the selection of a remedial alternative. If the treatability study is done in support of not fully understood technologies then the data requirements will be broader.

Response 9:

Concur. The first step in determining the need for treatability testing will be to ascertain if available site data and current uncertainties are acceptable to the selection of a remedial alternative. Section 5.0, Treatability Study Procedures, has been revised to reflect this requested change. The third bullet, previously the second bullet, has been revised and the fourth bullet, previously the third bullet, has been deleted.

Comment 10:

In Section 5.0, the "Treatability Approach" subsection lists several tasks needed in order to complete a total cycle in the treatability study approach. Once the need for a treatability study has been established, then the first step should be to define the Scope and Objectives of the treatability study. These Scope and Objectives should be based on identified data needs and the technologies to be tested. According to this section the first step should be to define Data Quality Objectives (DQOs). This should be the second step, after Scope and Objectives are defined.

Response 10:

DQOs typically comprise scope and objectives of the ensuing effort. Therefore, the meaning was implied by E/A&H. Also, within Sections 5.2 and 5.3, bullet statements are made, designating "test objectives" as being a significant portion of the Treatability Study Work Plan. However, to clarify the intent of the document, a revision was completed on this subsection, which states that the scope and objective are to be defined at the onset of the treatability study.

Comment 11:

Section 5.3, Preparing the Work Plan, describes some of the subjects that should be included in the preparation of a treatability study work plan. The Department believes that a section of the work plan should explain the management of residuals and wastes from bench or pilot studies.

Depending on the type of test to be performed, the amount of residues/wastes could be considerable.

Response 11:

The document has been revised to include a bullet indicating “management of residuals,” when required. In addition, it should be noted that Section 2.7, Investigation-Derived Waste, of the comprehensive CMS Work Plan states that all investigation-derived wastes will be handled and disposed of in accordance with Section 5.15 of the SOP QAM and Section 16 of the Final Comprehensive RFI Sampling and Analysis Plan.

Comment 12:

Section 5.6, Analyzing and Interpreting the Data. This section explains that the first goal of data analysis is to determine the quality of data collected. To achieve this goal, a discussion related to the uncertainty of the data analysis should also be included. This issue should be discussed by comparing the initial uncertainty on the data, before the tests was performed, with the remaining uncertainty of the data collected after the test is performed. This section should also discuss, what remains uncertain after the test and what uncertainties were overcome with the additional data obtained from the treatability study.

Response 12:

This section of the document has been revised to reflect the concerns of this comment. The revision states that as a general perspective, the level of process or treatability uncertainty will be presented and discussed initially in the Work Plan prior to the start of treatability efforts. The goal of the treatability study is to eliminate, or at least to reduce the level of, the uncertainty. Upon completion of the treatability effort, the CMS report will state whether any uncertainty remains, and its subsequent adverse impact, if any, to the project.

Comment 13:

Section 6.1, Project Work Elements. This section describes a series of tasks that will be accomplished throughout the CMS process. Task # 11 “Field Work”, is subdivided in four additional tasks. The first of these additional tasks reads “perform no-further-action (NFA) evaluation via electronic realistic risk assessment.”

It is not clear what this tasks proposes to do. The objective of this task should be explained. Additionally, if a CMS Work Plan has been approved (task 9), it would seem reasonable that at least one remedial alternative will be considered or evaluated for a site or group of sites. It is unclear how at this point in the CMS process, a NFA evaluation could be considered based on

a “electronic realistic risk assessment.” Please provide an explanation of how all these elements relate.

This comment also includes task # 12, which seems to be related or depending on task # 11. Comment 2 should also be considered as part of this comment.

Response 13:

The tasks listed in Section 6.1, Project Work Elements, have been substantially revised (eg, the work elements list has been restructured and shortened). References to NFA and electronic risk assessments are no longer applicable and therefore have been deleted from the PMP.

Comment 14:

For Volume I, there are some typographical errors:

Page 6-1, Section 6.1, second paragraph, the words “for completion” are repeated twice in the same sentence.

Page 6-6, “Project Team” paragraph, the misspelled names of the SCDHEC representatives really are: Ms. Ann Ragan, Mr. Johnny Tapia.

Response 14

The sentence containing “for completion” twice was corrected. The spelling of Ms. Ann Ragan’s and Mr. Johnny Tapia’s names were corrected.

Comprehensive CMS Work Plan (Volume II)

Comment 15:

Section 3.0, Quality Assurance/Quality Control Plan. On page 3-1 of this section, there is a paragraph labeled as “Applicable Regulations,” which mentions that CFR 40 (260-280) applies. It should be mentioned that the South Carolina Hazardous Waste Management Regulations (SCHWMR R.61-79) also apply, with its latest edition dated December 27, 1996.

Response 15:

The document has been revised to note the applicability of SCHWR R.61-79 dated December 27, 1996.

Comment 16:

Section 4.2, Data Deliverables. This section states that data deliverables elements identified in the Comprehensive RFI Work Plan apply. This is true, however additional elements could be identified during the CMS, due to the introduction of new studies such as bench scale or pilot studies. This section should account for these new elements that are likely to appear during development of the Corrective Measures Study.

Response 16:

The document has been revised to reflect this comment. Additional CMS-specific data deliverable elements, such as those generated as a result of treatability studies or additional soil/ground water sampling, apply.

Comment 17:

Section 4.0 makes reference to the "Engineer in Charge" (EIC). Up to this point in the Work Plan, from the project management stand point, it has not been identified or defined the roll of the Engineer in Charge. This should be clarified.

Response 17:

The EIC is Mr. Matthew A. Hunt of the Southern Division Naval Facilities Engineering Command. Mr. Hunt's role as EIC is described in Section 6.3, Project Management Responsibilities, of the PMP (eg, Volume D). The position description states that Mr. Hunt is responsible for the technical and financial management of Installation Restoration Program activities at Charleston Naval Base. It further states that the EIC prepares the project statement of work; manages the project scope, schedule, and budget; and provides technical review and approval of all deliverables. Section 4.0 of the comprehensive CMS Work Plan was revised to clarify this point.

Comment 18:

It is understood that Section 5.0 of Volume II tries to introduce and provide general information for a basic understanding of how laboratory tests, bench scale tests and pilot study tests, in relation to certain technologies, will be performed at Charleston Naval Base. Some of these descriptions provide very specific technical information, as operating parameters, etc., that should be presented instead, as part of the appropriate work plan when specific test/technology are chosen.

This is a Comprehensive Work Plan, where all general procedures are described. Some technologies proposed for testing go in deep detail with specific values of parameters and volumes of materials. This approach shows inconsistency on the way this section of the work plan is written. The Navy should revise this section to provide a more consistent approach, meaning a similar level of detail in the description of the tests/technologies considered to be applicable at the Charleston Naval Complex.

Response 18:

It was the intent of E/A&H to write, in a general sense, the treatability section of the Work Plan. However, the description of certain treatability processes required a greater level of detail than initially anticipated. This increased level of detail was added to ensure that the Project Team was aware of potential treatability challenges and requirements facing the Charleston Naval Base corrective measures effort.

However, it is reasonable to expect that site-specific treatability studies will include additional and site-specific information beyond what is presently listed. An additional paragraph was added to Section 5.0 that outlined the typical approach to a Treatability Study Work Plan. A key aspect of the Treatability Study Work Plan is its flexibility. The Work Plan must provide allowances and therefore flexibility for unforeseen site conditions and alterations of subsequent treatment options.

Comment 19:

Section 6.4, Authorized Personnel, and Section 6.5, Emergency Information, should be updated. The name of the site contact has changed in the last few months. This update includes pages 6-30, 6-31 and 6.32.

Response 19:

Both of these sections have been updated to reflect personnel who are currently assigned to the posted positions.

Comment 20:

Typographical error on page 6-3, first paragraph. The word is augering instead of auguring.

Response 20:

Correction applied.