

**Baker**

6/18/96 - 02234

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June 18, 1996

Commander  
Atlantic Division  
Naval Facilities Engineering Command  
1510 Gilbert Street (Building N-26)  
Norfolk, Virginia 23511-2699

Attn: Mr. David Forsythe  
Code 18224

Re: Contract N62470-89-D-4814  
Navy CLEAN, District III  
Contract Task Order (CTO) 0353  
Final Project Plans  
Camp Allen Salvage Yard  
Naval Base, Norfolk, Virginia

Dear Mr. Forsythe:

Baker Environmental, Inc. (Baker) is pleased to submit two (2) copies of the Final Project Plans for the Remedial Investigation/Feasibility Study (RI/FS) at the Camp Allen Salvage Yard, Naval Base, Norfolk, Virginia and two (2) copies of the Executive Summary for the Work Plans. Baker has incorporated the review comments received from LANTDIV on May 31, 1996 into the Final Project Plans and Executive Summary. The LANTDIV, Activity, and Navy Environmental Health Center comments and the associated responses are included as Attachments A, B, and C, respectively.

As requested, one (1) copy of the Project Plans and Executive Summary has also been forwarded to Ms. Dianne Bailey at Naval Base, Norfolk. One (1) copy of the Executive Summary will be sent via the U.S. Postal Service to the individual Naval Base Restoration Advisory Board (RAB) members once your approval of the document is received.

As we discussed during our telephone conversation on June 18, 1996, Baker is prepared to begin field activities on June 22, 1996. Subcontractors selected for geophysical and soil sampling activities are scheduled to begin on June 24, 1996. Therefore, if you have any further comments regarding the Project Plans, please notify me as soon as possible. Baker will not begin the field program until approval is provided by LANTDIV.

Baker

Mr. David Forsythe  
June 18, 1996  
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Baker appreciates the opportunity to provide continued technical support to LANTDIV on this important project. Should you have any questions or comments, please do not hesitate to contact me at (412) 269-2026 or Mr. Gordon Ruggaber at (412) 269-4697.

Sincerely,

BAKER ENVIRONMENTAL, INC.



David J. Mamrose, P.E.  
Project Manager

DJM/lq

Enclosures

Attachment A - LANTDIV Review Comments  
Attachment B - Activity Review Comments  
Attachment C - NEHC Comments

cc: Ms. Lee Anne Rapp, Code 18312 (Letter Only)  
Mr. Rollie Burford, Code 02112 (Letter Only)  
Ms. Dianne Bailey, COMNAVBASE Code N-42B (One Copy)

## ATTACHMENT A - LANTDIV COMMENTS

### Response to Comments - Draft Project Plans Camp Allen Salvage Yard Norfolk Naval Base, Norfolk, Virginia Contract Task Order 0353

**Comment:** 1.) Page 1-2, Paragraph #2 - Remove comment indicating use of site as a park.

**Response:** Revision has been made as requested.

**Comment:** 2.) Page 1-2, Paragraph #3 - Change last sentence from late 1996 to summer 1997.

**Response:** Revision has been made as requested.

**Comment:** 3.) Page 1-2, Last - Verify that a baseline risk assessment was performed as part of PA/SI.

**Response:** A quantitative baseline human health risk assessment (baseline RA) was performed as part of the PA/SI Report prepared for the Camp Allen Salvage Yard (CASY). The baseline RA evaluated potential surface soil exposures to CASY workers via accidental ingestion, dermal contact and the inhalation of fugitive dusts. Exposures to the following eight surface soil COPCs were evaluated for this receptor group: trichloroethene (TCE), Aroclor-1254, Aroclor-1260, 4,4'-DDT, 4,4'-DDE, copper, antimony, and lead. No unacceptable risks, carcinogenic or noncarcinogenic, were found to exist under the evaluated exposure scenarios.

**Comment:** 4.) Page 1-3, Bullet #4 - Clarify relative human endangerment.

**Response:** The specified bullet has been revised to state that one of the objectives of the RI/FS will be to, "Conduct a human health risk assessment to evaluate exposures under current and future land use scenarios."

**Comment:** 5.) Page 1-4, Bullet #3 - Add COMNAVBASE to LANTDIV personnel.

**Response:** Revision has been made as requested.

**Comment:** 6.) Page 2-4, Section 2.2.1 - Regional geology is incorrect. Revise with current description.

**Response:** The regional geology and hydrogeology section of the Work Plan have been revised in accordance with the technical references provided by Mr. William Mullen of LANTDIV.

**Comment:** 7.) Page 2-5, Section 2.2.2.1 - Groundwater description should include a statement that the Camp Allen Landfill RI/FS and Remediation is addressing the groundwater in the Areas of Camp Allen adjacent to areas A and B.

**Response:** A paragraph has been included at the end of Section 2.2.2.1 (page 2-7) which states that both the Columbia and Yorktown Aquifers have been impacted by organic contaminants in the Camp Allen area and that a remediation system is currently under construction to address this situation.

**Comment:** 8.) Page 2-7, Section 2.2.2.2 - Surface water description should include a statement that the Camp Allen Landfill RI/FS addressed all the surface waters applicable to the CASY.

**Response:** A paragraph has been included at the end of Section 2.2.2.2 which states that portions of Bousch Creek were investigated in the Camp Allen Remedial Investigation. This investigation included surface waters applicable to the Camp Allen Salvage Yard (CASY).

## ATTACHMENT B - ACTIVITY COMMENTS

### Response to Comments - Draft Project Plans Camp Allen Salvage Yard Norfolk Naval Base, Norfolk, Virginia Contract Task Order 0353

#### Work Plan

**Comment:** 1.) Page 1-1, Section 1.2 and Page 2-1, Section 2.0 - Do not refer to “waste materials”, can be confused with hazardous wastes. Use terms like “salvage yard”, “scrap material” or “excess equipment”. Also the facility was closed in 1995, not 1994.

**Response:** The word “scrap” has been used in the place of “waste”. In addition, the date of the facility closing was revised to 1995.

**Comment:** 2.) Page 1-5, Section 1.6, last line - Section 4 is “Project Management and Staffing” and Section 5 is “References”.

**Response:** The revision has been made as requested.

**Comment:** 3.) Page 1-2, Section 2.1.1, 2nd sentence - change “store materials” to “excess equipment”.

**Response:** The revision has been made as requested.

**Comment:** 4.) Figure 2-1 - Remove shaded areas identifying areas of buried waste at Area B. This was removed in 1994.

**Response:** The revision has been made as requested.

**Comment:** 5.) Page 2-8, 3rd paragraph - Explain about Camp Allen Landfill (CAL) Area B Removal Action in 1994. Buried wastes are now gone from site. 11,000 tons of soil were removed and replaced with clean fill.

**Response:** A section has been added to page 2-8 which describes the removal of soils associated with the CAL Area B Removal Action.

**Comment:** 6.) Page 3-3, Section 3.3.2.2 - spell out PID

**Response:** The revision has been made as requested.

#### Sampling and Analysis Plan

**Comment:** 1.) Page 2-1, 1st paragraph, last sentence - See comment #1 under Work Plan.

**Response:** The word “scrap” has been used in the place of “waste”. In addition, the date of the facility closing was revised to 1995.

**Comment:** 2.) Page 3-12 - Investigation Derived Waste (IDW) must be removed from the site within 90 days of generation.

**Response:** The text has been revised to indicate that all IDW materials will be removed from the site within 90 days of generation.

### **Quality Assurance Plan**

No comments.

### **Health and Safety Plan**

**Comment:** 1.) Page 2-4 - Dianne Bailey's new phone number is 804-322-2900.

**Response:** The revision has been made as requested.

**Comment:** 2.) Page 3-1, Section 3.1, 1st sentence - Change to "This area also includes..." and remove CASY from the list of activities in the area. Also move the second sentence to the first. The third sentence should be changed to "...the CASY has been used..."

**Response:** The revision has been made as requested.

**Comment:** 3.) Page 3-2, 1st paragraph - Change "A 90-day hazardous waste accumulation area existed..."

**Response:** The revision has been made as requested.

## ATTACHMENT C - NAVY ENVIRONMENTAL HEALTH CENTER COMMENTS

### Response to Comments - Draft Project Plans Camp Allen Salvage Yard Norfolk Naval Base, Norfolk, Virginia Contract Task Order 0353

#### Work Plan

**Comment:** 1.) Page 1-4, Section 1.3, "Applicable or Relevant and Appropriate Requirements (ARARs)"

Comment: This section states that the "ARARs are identified on a site-specific basis from three types of ARARs: chemical-, location-, and action-specific," ARARs should be determined early so that they can assist in initially identifying remedial alternatives and allow better planning of field activities.

Recommendation: Define and list potential ARARs which will be used in comparing concentrations of site contaminants.

**Response:** A table has been included to the Work Plan which lists several ARARs which may pertain to the CASY.

**Comment:** 2.) Page 2-1, Section 2.1, "Site Description"

Comment: The text provides information concerning the nature of Camp Allen Salvage Yard (CASY). However, there is no discussion of current employee populations at or near this site. No information is provided on potential recreational areas surrounding this site.

Recommendation: In the final work plan, characterize the activities and activity patterns of the potentially exposed employee populations at or near the CASY. Discuss any recreational activities around the CASY.

**Response:** As stated in the introduction to Section 2.0, the CASY is no longer used for the salvaging and handling of scrap materials. The introduction will be further expanded to state that no workers are permanently assigned to the salvage yard. Construction workers are the only personnel who periodically enter the site. Their access to the site is only for brief periods to store or retrieve materials. Once the construction activities are completed at the Ben Morrel Housing Complex, such storage activities will be terminated.

**Comment:** 3.) Page 2-7, Section 2.3, "Previous Investigations"

Comment: The text states that "groundwater contaminants were detected in both the shallow water table and the Yorktown Aquifer in Areas A and B." Areas A and B are in the Camp Allen Landfill site. CASY is located between Areas A and B. The text further states that "three groundwater monitoring wells were installed within the boundaries of the CASY." There is no mention of the groundwater data for these three monitoring wells.

Recommendations: Specifically indicate whether groundwater contaminants were detected in the three groundwater monitoring wells located within the boundaries of the CASY.

**Response:** Descriptions of the analytical results for the three monitoring wells located within the CASY have been incorporated into Section 2.3.

**Comment:** 4.) Page 3-2, Section 3.3 "Field Activities."

Comments: Background samples are not mentioned for any medium of concern at the CASY. It is not clear whether background samples were taken at the CASY. Per reference (A), background samples for each medium of concern should be collected at the CASY to adequately compare them to site-specific samples.

Recommendations: Provide information concerning where the background samples were taken. Provide background sample location(s) on the CASY map, if applicable or provide justification for not taking background samples. Discuss how the background concentrations will be used in the baseline risk assessment.

**Response:** Sampling location rationales for soils and groundwater are described in Tables 3-1 and 3-2 of the Work Plan, respectively. As stated in the Work Plan, nine existing groundwater monitoring wells located in the vicinity of the CASY (Figure 3-1) will also be sampled. These existing monitoring wells will serve as background wells relative to the CASY.

**Comment:** 5.) Pages 3-3, Section 3.3.2.1, "Surface Soil Sampling"

Comments:

- a. The text states that "If sample location is covered by either concrete, asphalt, or compacted soils, the soil sample shall be collected immediately beneath the subgrade materials." Section 5.01 of reference (b) states that "If an area of observed contamination or portion of such an area) is covered by a permanent, or otherwise maintained, essentially impermeable material (for example, asphalt) that it is not more than two feet thick, exclude that area (or portion of that area) in evaluating the soil exposure pathway."
- b. Health risk assessments for surface soil exposure pathways presume daily contact with surface soils. Where there is asphalt, concrete, or other surfacing, such contact will not occur. There is no EPA guidance which suggests that surface soil pathways should be considered when a surface soil pathway does not exist.

Recommendation: Specify in the final work plan that soil samples collected from areas with essentially impermeable surfaces (e.g., asphalt), will be considered subsurface soil samples and will be used only to calculate appropriate exposure scenarios for health risk assessments.

**Response:** The appropriate sections of the Work Plan and Sampling and Analysis Plan have been revised to clearly indicate that samples collected beneath impermeable materials will be considered subsurface soil samples.

**Comment:** 6.) Page 3-1, Section 3.7, "Baseline Risk Assessment"

Comment: Reference (c), Section 2.3.1.1 states that a conceptual site model should be included in the work plan. This conceptual site model should include a summary of the nature and extent of

contamination, potential migration and exposure pathways, and a preliminary assessment of human health and environmental impacts.

**Recommendation:** Provide a conceptual site model in the final work plan.

**Response:** A brief description of a conceptual site model for the site has been included in the Final Project Plans.

### **Sampling and Analysis Plan**

**Comment:** 7.) Page 3-17, Section 3.6, "Quality Assurance/Quality Control"

**Comment:** Reference (d) requires equipment rinsate blanks be taken at a frequency of one per day versus one every other day as stated in the text.

**Recommendation:** Revise the text to reflect the correct number of equipment rinsate Quality Assurance (QA)/Quality Control (QC) samples, as required by reference (d).

**Response:** As specified in the reference document, rinsate samples shall be collected daily during the sampling event. Initially, samples from every other day will be analyzed. If analytes pertinent to the project are found in the rinsate, the remaining samples will be analyzed.

**Comment:** 8.) Page 3-2, Section 3.4, "Field Activities"

**Comment:** Background samples for any medium of concern are not discussed for the CASY. It is not clear whether background samples were taken at the CASY. Per reference (a), background concentrations should be addressed in the Sampling and Analysis Plan (SAP).

**Recommendation:** Provide information concerning where the background samples are going to be taken. Provide background sample locations(s) on the CASY map (Figure 3-1), if applicable or provide justification for no background samples taken.

**Response:** Sampling location rationales for soils and groundwater are described in Tables 3-1 and 3-2 of the Work Plan, respectively. As stated in the Work Plan, nine existing groundwater monitoring wells located in the vicinity of the CASY (Figure 3-1) will also be sampled. These existing monitoring wells will serve as background wells.

**Comment:** 9.) Page 3-4, Section 3.4.4.1, "Surface Soil Sampling"

**Comment:** The text states that "If the sample location is covered by either concrete, asphalt, or compacted soils, the soil sample shall be collected immediately beneath the subgrade materials". Section 5.0 of reference (b) states that "If an area of observed contamination (or portion of such an area) is covered by a permanent, or otherwise maintained, essentially impermeable material (for example, asphalt) that it is not more than two feet thick, exclude that area (or portion of that area) in evaluating the soil exposure pathway."

**Recommendation:** Specify in the final work plan that soil samples collected from areas with essentially impermeable surfaces (e.g., asphalt) will be considered subsurface soil samples.

**Response:** The appropriate sections of the Work Plan and Sampling and Analysis Plan have been revised to clearly indicate that samples collected beneath impermeable materials will be considered subsurface soil samples.

**Comment:** 10.) Page 4-1, Section 4.0, "Field Investigation Standard Operating Procedures"

Comment: Throughout the SAP it is mentioned that all Standard Operating Procedures (SOPs) are included in Section 4. However, no SOPs are provided in Section 4 of this SAP.

Recommendation: Include the SOPs in the final Work Plan.

**Response:** As stated on the cover sheet for the SOPs, these will be included in the Final Sampling and Analysis Plan. LANTDIV has already reviewed and accepted the SOPs. Therefore, they were eliminated from the Draft Work Plans in an effort to reduce the volume of the document and preparation costs.

### Quality Assurance Project Plan

**Comment:** 11.) Table 9-2, "Quality Assurance/Quality Control Sample Frequency, Camp Allen Salvage Yard, Contract Task Order 0353".

Comment: Reference (d) required equipment rinsate blanks be taken at a frequency of one per day versus one every other day as stated in the table.

Recommendation: Revise Table 9-2 to reflect the correct number of equipment rinsate QA/QC samples, as required by reference (d).

**Response:** As specified in the reference document, rinsate samples shall be collected daily during the sampling event. Initially, samples from every other day will be analyzed. If analytes pertinent to the project are found in the rinsate, the remaining samples will be analyzed.

### Health and Safety Plan

**Comment:** 1.) Page 2-3, Section 2.4, "Project Personnel and Responsibilities"

Comment: The second paragraph, first bullet states the subcontractors are responsible for "Complying with the conditions outlined under "Field Team Members", and familiarity and compliance with the content of this HASP".

Recommendation: We recommend that each subcontractor, as a minimum, provide their own site specific, task hazard analysis.

**Response:** The Basic Order Agreement contract by Baker to subcontractors devotes two paragraphs to health and safety requirements. One of these requirements is that Baker subcontractors initiate, maintain, and supervise all health and safety precautions and programs for their personnel and that they develop their own site-specific health and safety plan.

**Comment:** 2.) Page 3-4, Section 3.2.2.3, "Noise"

Comment: This paragraph states, "Elevated noise levels may be produced during drilling and other heavy equipment operations...". Information stating how sound pressure levels will be quantified

is not provided. However, on page 3-8, Section 3.6.4, "Monitoring Well Installation", the second bullet of the second paragraph cites "Elevated noise levels from heavy equipment operation", as a potential "Physical/Environmental" hazard. It is unclear if elevated sound pressure levels are a potential hazard at this site.

Recommendation: We recommend clearly stating how sound pressure levels are to be quantified. Exposed personnel are to be included in the company's hearing conservation program.

**Response:** It is Baker's experience that intermittent noise generated during drilling activities of similar projects indicates that employee noise exposures will not equal or exceed an 8-hour time-weighted average sound level of 85 decibels measured on the A scale. Personnel operating on this project are subject to an annual physical which includes a hearing examination.

**Comment:** 3.) Page 3-5, Section 3.2.3, "Environmental Hazards"

Comment: The sixth paragraph states, "There is also a potential to come in contact with other dangerous insects; these include... and ticks." Information, other than performing periodic "buddy checks" is not provided. For example, no information stating the proper response if a tick is found embedded in the skin, and or a requirement to use insect repellants when there is a potential for exposure.

Recommendation: We recommend providing guidance for removing ticks and treatment of the bite wound. Additionally, state that field personnel should use appropriate chemical insect repellants when potentially exposed to ticks.

**Response:** Additional information is included in Section 8.8.5 of the Final HASP regarding first aid methods for tick bite injuries.

**Comment:** 4.) Page 5-4, Section 5.5, "Equipment Maintenance and Calibration"

Comments: this section states, "Equipment calibration under the direction of the SHSO will be completed daily before use and calibration information..." "Procedures for equipment maintenance and calibration follow those guidelines found in the operating manual provided by the manufacturers."

Recommendation: We recommend calibrating all air monitoring equipment before and after each period of use in accordance with good industrial hygiene practice and manufacturer's recommendations.

**Response:** Standard industrial hygiene practice is to calibrate monitoring equipment, such as air flow pumps, before and after each use to determine the quantity of air that has passed through the sampling medium. Baker is using real-time air monitoring equipment (Photo-ionizing detector and Oxygen/Combustible gas meter) and calibrating it according to manufacturer's recommendations. This equipment is used to give an almost immediate indication if certain chemicals may be present in the work area. This equipment is calibrated prior to each day of use and if the equipment begins operating erratically. Baker has developed a high confidence level by following the manufacturer's instructions, which has proven successful on numerous projects.

**Comment:** 5.) Page 6-2, Section 6.3.1, "Level B"

Comment: Information stating that this level of PPE may be required is not provided. Only site-specific PPE guidance should be included in this document.

Recommendation: Provide only site-specific information in the final HASP.

**Response:** Reference to Level B will be removed from the text of the final HASP.

**Comment:** 6.) Page 7-1, Section 7.0, "Decontamination Procedures"

Comment: This paragraph states, "Procedures to follow for the decontamination of personnel and equipment, as well as handling of materials generated during decontamination, are discussed in the following sections." There are no provisions listed for decontaminating equipment used at this site. Additionally, no PPE guidance for personnel equipment decontamination is provided in Section 6.2, "Site-Specific Levels of Protection.

Recommendation: Include the information in the final HASP.

**Response:** This section has been revised according to the NEHC recommendation.

**Comment:** 7.) Page 8-1, Section 8.0, "Emergency Procedures"

Comments:

- a. Provisions to periodically exercise the emergency response plan and to critique the exercise or event are not included in the HASP.
- b. Page 8-7, Section 8.8.2, "Chemical Injury" and Page 8-9, Section 8.10, "Personal Protection and First Aid Equipment". The use of a 15 minute emergency eyewash is stipulated in both sections. Information is not provided stating that these units meet the American National Standards Institutes (ANSI) criteria of being able to deliver to the eyes 1.5 liters (0.4 gallons) of potable water per minute.

Recommendations:

- a. Include information stating the plan will be exercised and critiqued.
- b. Include a statement in the final HASP that the emergency eyewash units meet ANSI Standard Z358.1-1990 or later.

**Response:**

- a. Information regarding exercising and critiquing the emergency procedures was included in Section 8.3 of the Final HASP.
- b. A statement regarding the ANSI Standard for emergency eyewash units was included in the Final HASP.