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TRANSMITTAL LETTER FOR THE RESPONSE TO U S NAVY COMMENTS ON FINAL
DESIGN SUBMISSION OPERABLE UNIT 1 (OU 1) CAP DESIGN NWS EARLE NJ
1/2/1998
BROWN AND ROOT ENVIRONMENTAL



Brown & Root Environmental

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C-49-1-8-004

January 2, 1998

Project Number 7602

Mr. Paul Briegel (Code 402A/PB)
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway
Mail Stop No. 82
Lester, Pennsylvania 19113-2090

Reference: CLEAN Contract No. N62472-90-D-1298
Contract Task Order 0289

Subject: Response to Comments
Final Design Submission
Operable Unit 1 (OU-1) Cap Design
Naval Weapons Station Earle (NWS Earle)
Colts Neck, NJ

Dear Mr. Briegel:

As requested, Brown & Root (B&R) Environmental is providing a written response to your comments, dated December 10, 1997. As requested, we are only responding to these comments and will not provide response to comments received from others at this time.

Comment 1

Enclosed are my comments on the final design submission for the subject project. Please review and provide written responses to these issues. Since B&R E is over budget and behind schedule, incorporation of these comments into the design documents will not be required. I have limited my comments to those which require consideration from the A/E of Record. I have other issues and inconsistencies which can be coordinated directly with Foster Wheeler Environmental Corporation (FWENC). If you consider review of the following comments beyond your limit of your contract or funding, please alert NORTHDIV via D. Rule or R. Boucher.

Response 1

The comments have been reviewed and responses are provided below. The Design Development Submission and the Final Design Submission were delivered on time in accordance with the schedule provided in CTO 289, Modification No. 2. B&R Environmental has received additional funding to transition the project to FWENC for subsequent construction. In support of the Navy and this project, we are providing responses to these comments, although the limited additional funding that we have received will not allow us to make substantial changes to the final design. Please note that B&R Environmental will not consider itself the A/E of Record and Mr. Al Briggs, P.E., will not consider himself the engineer of record if modifications are made to the final design without Mr. Briggs' approval.



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Comment 2

Some of the allowable soil types for the select fill layers are not desirable materials beneath the paved areas. Many are poorly draining soils, leaving the pavement susceptible to frost heave.

Response 2

The potential for frost heave of this layer would not be great given that porous materials are placed above and below the select fill layer and that this area is covered with a relatively impervious surface (the asphalt pavement). The pavement design is based on Navy Design Manual 5.4, which does not exclude materials meeting the requirements of select fill being used as the subgrade.

The 6-inch thick select fill layer, located between the granular drainage material and the aggregate base course/asphalt surface course could be replaced with granular drainage material and the non-woven geotextile deleted in this area. This would ease construction and lessen the potential for frost heave. The one foot layer of granular drainage material should be left in place to provide necessary drainage above the 40-mil VFPE.

Comment 3

The final grading plan for at Site 4 reflects some areas with slopes in excess of 4:1 (or about 27%). This creates a high erosion potential during and after construction. Grass maintenance will also be difficult. Can this be optimized?

Response 3

The cap configuration at Site 4 as well as Site 5 attempted to optimize the cut/fill balance. The intent of the design for the final slopes at Site 4 was to provide a maximum slope of 25% (4:1) within the cap. During the modeling phase to develop the rough grade for the cap at Site 4, the maximum grade was set at 25%. Therefore, slight variations in grades on the plans are an artifact of the plotting process. Foster Wheeler should be aware that there are no slopes greater than 25% anywhere on the Site 4 cap.

Two areas outside the limit of the cap are graded steeper than 4:1, both near the location of the sediment basins. These areas could be graded to 4:1 with the only additional cost being the cost of grading.

Comment 4

The final grading plan for Site 5 reflects slopes as shallow as 3% in the grassy area. This will not facilitate drainage to any significant degree. How much fill would be involved to raise the plateau in the center of the site high enough to achieve grades nearer to a 5% slope?

Response 4

The New Jersey Department of Environmental Protection (NJDEP) requires a minimum slope of 3% for landfill caps. As indicated in Response 3, the overall objective for the cap configuration at Site 5 was to optimize the cut/fill balance. By raising the center of the cap to achieve a 5% slope, a substantial amount of material would be required. A cursory review of the grades indicated that approximately 26,000 c.y. of additional fill material may be required to achieve a 5% minimum slope on Site 5.



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Comment 5

Delete the notes stating that the skeet range needs to be designed to MIL HDBK requirements. B&R E is the A&E and was contracted for a full design. If the design is not complete, let me know which portions of the submission require additional work so a NORTHDIV/FWENC engineering team can finish the job. There is no data on the trailer and the propane fuel system. Where is the information?

Response 5

The skeet range and related work was designed in conformance with the MIL HDBK. The reason for putting this note on the drawing was to alert the contractor (FWENC) that if field changes are required, that the changes must conform to the MIL HDBK to avoid later problems with site approvals. Issues such as the selection of the clubhouse trailer and related items were not resolved at the time the Final Design was submitted. The notes could be modified to state that the skeet range has been designed in accordance with the military handbook and that any revisions to the design shall be performed in accordance with the military handbook. The note can also be deleted at the direction of the Navy.

The minutes of the October 9, 1997 design meeting (attached) include discussion of the clubhouse trailer. As you may recall during this meeting, the Shooter's Club (James D'Averso) agreed to supply the specifications for the new clubhouse trailer by the end of October 1997. Since the Final Design Submission was due to the Navy on November 10, 1997, it was agreed that the clubhouse trailer would not be a part of the Final Design Submission and would be handled separately by FWENC. As a result of this meeting, B&R Environmental was directed to include a concrete pad in the Final Design Submission at the proposed location of the new trailer.

Since the heating system is an integral part of most trailers, it was decided that issues related to the heating system would be resolved directly between the Shooter's Club and NWS Earle as soon as the new clubhouse trailer was selected. Installation of the selected trailer would be performed by FWENC as a field change. Mr. Greg Goepfert of NWS Earle indicated in a telephone conversation on December 22, 1997 that the Shooter's Club had not selected a new clubhouse trailer and; therefore, no details on the clubhouse trailer are available at this time.

Comment 6

Vehicular access to the Site 4 access ramp still appears limited. Can the limit of disturbance be extended a few feet?

Response 6

Yes.

Comment 7

The drop inlets include screens on the upstream side of the discharge pipe. This line will become clogged with leaves, paper, and grass and the inlet will be inaccessible for maintenance. If filtering or screening is required, provide a system which can be maintained by Public Works.



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Response 7

These drop inlets are part of the skeet range and would be maintained by Shooter's Club personnel. Shooter's Club personnel could access these drop inlets for cleaning and maintenance by removing the cast iron grates. As indicated previously, these drop inlets are intended to catch heavier materials such as lead shot and clay pigeon fragments which may be carried by stormwater, and prevent them from being discharged to the adjacent drainage swales. Lighter materials such as the plastic wadding material from the shot gun shells, could be discharged from the drop inlets unless a screen or other baffle type device is provided.

As an alternative, the screening could be replaced with a 90-degree elbow, pointed downward, to restrict floatables from entering the discharge pipe, although this may require a larger drop inlet box to accommodate the elbow. The elbow would also restrict access to the inlet box for cleaning. Another alternative is to eliminate the screen and allow floatable materials to be discharged into the drainage swales.

Comment 8

The specifications (02315.1.2.1) allow placement of any size solid waste material beneath the cap. Since we do not want to create a point load, a maximum size object should be specified. Also, sharp objects should not be allowed beneath the cap. Should we limit wastes from the upper 1 to 2 feet below the liner?

Response 8

B&R Environmental suggests that the specifications be modified to require size reduction of landfill materials to one foot in any dimension to insure that voids will not develop during the regrading of the landfill material. Since the material will be reduced in size and a one foot bedding layer is incorporated into the design (effectively keeping wastes a minimum of one foot from the liner) wastes do not need to be limited from being placed at the top of the regrade surface. Bulky wastes could be disposed of without size reduction with the approval of the contracting officer if the bulky material is placed 4 feet below the regrade surface and will not limit the compaction of surrounding materials. This would allow for disposal of materials such as a crushed water heater without reducing its size to one foot in any dimension.

Please call if you have any questions or require further information.

Sincerely,

David C Witt FOR

Michael J. Wierman, P.E.
Project Manager

ATTACHMENTS: Minutes of the October 9, 1997 Design Meeting

PRE-DESIGN REVIEW MEETING FOR REMEDIATION OF INSTALLATION
RESTORATION LANDFILL SITES 4 (NEAR LAKE EARLE) AND 5 (SHOOTER'S
CLUB / EOD RANGE AREA), THURSDAY, 9 OCTOBER 1997, 0900 HRS

Participants:

Mr. John Kolicius
Mr. Jim Santry
Mr. Gregory Goepfert
Mr. Thomas Gentile
Mr. Dave Wiesner
Mr. James D'Averso
Mr. Paul Briegel, NORTHDIV
Mr. Tom Dunn, ROICC
Mr. Ralph Tinari, ROICC
Mr. Mike Wierman, Brown & Root Environmental

Issues:

1. Comments from Messrs. Paul Briegel, Greg Goepfert, Tom Gentile, Nick Souchik were acknowledged by Mr. Wierman. Tom Dunn produced his comments at the meeting. Expect comments to be addressed in final design documents.
2. Changes to wetlands delineations will be made based on Mr. Chris Dolphin's (NJDEP) visit of 3 Oct 97. Ms. Kuntzleman of NORTHDIV will follow up to make sure that delineations specified by NJDEP are incorporated in the final design specifications.
3. Brown & Root Environmental will be held responsible for contacting the Freehold Soil Conservation District to assure that their substantive requirements are met. Brown & Root will coordinate any or all requirements with the Remedial Project Manager, Mr. Kolicius.
4. Contractor will not contact outside regulatory agencies during the course of the work; all contacts with outside agencies will be through the Earle ROICC office. This statement must be made part of the final design documents.
5. Mr. D'Averso will provide trailer specifications by the end of October, 1997.
6. E.O.D. and Security will be invited to PRE-CON by ROICC.
7. No "recycled topsoil" should be used on this job, as per Mr. Gentile.
8. Site approval for the Shooter's Club will be handled by letter by Mr. Santry (does not appear to be a problem). Mr. Bill Gibbings of LANTDIV will need to be contacted in order to "certify" the Shooter's Club, once re-established.

1.

PRE-DESIGN REVIEW MEETING FOR REMEDIATION OF INSTALLATION RESTORATION LANDFILL SITES 4 (NEAR LAKE EARLE) AND 5 (SHOOTER'S CLUB / EOD RANGE AREA), THURSDAY, 9 OCTOBER 1997, 0900 HRS

9. E.O.D. / Station will have to pay for additional electric line to E.O.D. bunker, requested by E.O.D. This is not a legitimate expense, as per Mr. Kolicius.

10. Mr. Gentile expressed concerned about runoff. Baffled concrete drainage boxes are in the design.

11. A discussion concerning lay down areas was discussed for Foster Wheeler, the potential construction contractor. Mr. Santry will check Explosives Safety Quantity Distances in order to identify a safe location for an office trailer. Mr. Wiesner had suggested the Boy Scout yard.

12. A discussion ensued regarding the cap's material of construction. Choices include clay vs. polymer/polyethylene liner material. Non-woven geotextile (polymer) is the designer's choice, and will be what is specified. The liner is a long-lead time item.

13. Mr. Gentile suggested that a warranty be requested for "turf establishment" upon completion of installation of the landfill caps. Typically, the ROICC would hold back a percentage of the final contract payment to ensure that turf establishment and maintenance actually takes place within a one-year Operation and Maintenance (O&M) period.

14. Fire Department must know where the landfill caps are so that they do not perform controlled burning within the landfill areas.

15. Location of landfill vents will be marked on the final design drawings, and marked appropriately in the field.

16. Site clearing work is currently scheduled to commence on or about 15 Jan 1998. Site work on the landfills will be scheduled concurrently in order to reduce mobilization costs. More detailed schedule to be prepared (by Foster Wheeler) and discussed with cognizant parties prior to commencement of work.

17. Mr. Kolicius is working on securing additional funding to ensure that this effort is fully funded before construction work begins.

18. Follow up meeting to transition design to construction phase of this project will be scheduled on or about Thanksgiving week.

Prepared by G. Goepfert, 11/21/97