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LETTER AND RESPONSE TO COMMENTS FROM U S NAVY REGARDING DRAFT  
REMEDIAL DESIGN FOR SITE 3 NCBC GULFPORT MS  
8/13/2014  
TETRA TECH



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January 3, 2014

Project Number 112G01310

Naval Facilities Engineering Command Southeast  
ATTN: Robert Fisher, P.G. (EV3)  
Remedial Project Manager  
Room 231  
Building 135N Ajax Street  
NAS Jacksonville, FL 32212-0030

Reference: CLEAN IV Contract Number N62467-04-D-0055  
Contract Task Order Number 0106

Subject: Response to Comments, Draft Remedial Design for Site 3 – Northwest Landfill  
Naval Construction Battalion Center Gulfport, Gulfport, Mississippi

Dear Mr. Fisher:

Tetra Tech is pleased to submit this letter responding to comments on the draft version of the Remedial Design for Site 3 – Northwest Landfill at Naval Construction Battalion Center (NCBC) Gulfport. The questions and/or comments received by Tetra Tech are addressed below.

#### **Comments from Charles Cook, NAVFAC SE**

1. The acreage stated in the last meeting and in previous documents was 3.7 acres. The text of the design mentioned is 2.7 acres. Also other places do not agree with the 2.7 acre number. Either correct or explain in the text.

**Response:** The area within the Landfill Boundary indicated on Figures 2-1 and 2-3 through 2-10 is 2.2 acres. Text references to the Old Landfill acreage in Section 2 (i.e., pages 2-1 and 2-17) will be revised to state 2.2-acres. The text reference to the area of the soil cover in Section 3.3.4 is also 2.2 acres.

2. It is mentioned that we are placing a two foot cover in accordance with the policy set forth by MDEQ. I think we need to emphasize that the "two foot cover is a safety precaution to prevent physical contact from future land users with landfill contents. This depth of cover was recommended by MDEQ. The recommendation is based on MDEQ policy."

**Response:** It is stated on p. 3-2 of the design report that RAO 1 is to prevent direct contact with the landfilled waste and soil and groundwater affected by the landfill thereby precluding potential unacceptable human exposure scenarios to those media.

The first paragraph on p. 3-5 will be revised as follows:

State involvement has been solicited throughout the CERCLA process. This included multiple discussions during NCBC Gulfport Installation Restoration Partnering Team (Partnering Team)

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meetings. During the meeting held on April 10 and 11, 2012, the Partnering Team discussed the alternative presented in the FS and the existence of the landfill in or very near a floodplain. The majority of waste is buried below the water table and in a floodplain; therefore, a low permeability cap will not prevent leachate from being created from contact with groundwater or stormwater. The end result of this discussion was to eliminate the cap and landfill gas management system. The remedy was revised to use a 2-foot thick soil cover to ~~protect human health~~ *prevent direct contact*. This approach is being used as the final corrective action for Site 3. Based on discussions held during the Partnering Team meetings, the MDEQ, acting on behalf of the State of Mississippi, concurred with the revised selected remedy (Navy, 2013).

3. Please explain why 9 ground water wells are needed. It would appear we could put 4-5 down gradient to get the job done.

**Response:** Groundwater at Site 3 generally flows east-southeast (Figure 2-10). Wells are to be installed on all four sides of the final site configuration. On three sides (west, north, and east), wells pairs are planned to monitor shallow (15 feet bgs) and deep (30 feet bgs) groundwater. To the south, a cluster of wells at three depths is planned downgradient of the cVOC plume (GPT-03-36, GPT-03-37, and GPT-03-38) to replace the well cluster (GPT-03-23, GPT-03-24, and GPT-03-25) that historically showed shallow and intermediate groundwater contamination, but will be abandoned to allow site regrading. Wells GPT-03-34 and GPT-03-35 will be relocated just west of the old landfill boundary to provide upgradient groundwater monitoring and wells GPT-03-39 and GPT-03-40 will be relocated just east of the old landfill boundary to provide downgradient groundwater monitoring.

4. It seems the slope was discussed and it was 0.1 instead of 0.15. Also you state that 2 feet of cover is being supplied over most of the site, I thought we were adding sufficient cover to the existing to make the total waste to depth 2 feet. I never imagined adding a total of 2 feet over the whole site.

**Response:** The soil cover area was designed to be usable as an athletic field with a peaked centerline and 1.5% slopes.

The design will provide a minimum of 2 feet of clean cover over waste. Existing clean cover soil will be regraded to provide a minimum of 3 inches of clean soil over the Enhanced Drainage Area, and an additional 21 inches of clean cover soil will be added to provide a total of 24 inches of clean cover (Drawings C-502, Detail D3). This additional soil was needed to provide both a total of 2 feet of clean cover and grading suitable for an athletic field. Outside of the Enhanced Drainage Area but within the landfill boundary, no additional soil was needed to provide 2 feet of clean cover.

#### **Comments from Gordon Crane, Consultant for NCBC Gulfport**

1. Greg/ Charles, as we get down the road here on Site Three, and the plan is to sod the cover. Just a reminder that Tiff 419 Bermuda is the standard grass on the base. It resists heat and traffic wear which will work to our advantage.

**Response:** Comment noted. The design specifies using Tifway 419 in the sodded area (the athletic field) and common Bermuda and annual ryegrass in seeded areas (remaining disturbed areas). Drawing C-106 will be revised so that any disturbed area within the old landfill boundary will be sodded with Tifway.

#### **Comments from Kenton Lottinger; NCBC Gulfport; NAVFACSE PWD Gulfport; Environmental Division; Air, Water & EMS Program Manager**

1. Is there a drawing that shows post construction drainage flow?



**Response:** Appendix E, Sheet 6 of 14 shows the post-construction drainage areas used to size the ditches and culvert. The areas outlined on Sheet 6 of 14 flows to Canal No. 1. The remaining portion of the Enhanced Drainage Area shown on Sheet 6 of 14 flows to North Pond.

2. Can you confirm that the area disturbance is actually 4.9 acres. Were there actual written calculations made in arriving at 4.9 acres? If so, request a copy?

**Response:** The 4.88-acre area within the limit of disturbance was determined electronically by AutoCAD Civil 3D and checked by hand planimetry. (A quantity calculation will be provided in Appendix E.)

3. The project will be required to comply with either the MDEQ Small construction General Permit if less than 5 acres disturbed or the more stringent MDEQ Large Construction General Permit (LCGP) if 5 acres or more disturbed.

**Response:** An MDEQ Small Construction General Permit would be required because the size of the disturbed area is less than 5 acres.

4. The LCGP requires submission of a LCNOI including a SWPPP, detailed site-specific scaled drawings showing the property layout and features outlined in ACT5 of permit and a USGS quadrangle map or photo, extending at least one-half mile beyond the facility property boundaries with the site location and outfalls outlined and highlighted be sent to MDEQ for approval prior to discharging of storm water from large construction activities without written notification of coverage. Approval from Harrison County Utility Authority may also be required

**Response:** An MDEQ Large Construction General Permit would not be required because the acreage of disturbance is less than 5 acres.

5. The SCGP requires only that the SCNOI and SWPPP be prepared and available if requested by MDEQ prior to discharging of storm water from small construction activities.

**Response:** An SCNOI and an SWPPP would be needed because the acreage of disturbance is less than 5 acres.

6. Consideration should be given to installing a temporary lined swales along the North/Northeast of LOD to redirect rain water flow to Canal No. 1 in an effort to prevent rain water from entering the construction site from northeast of the LOD.

**Response:** Under the current Erosion and Sediment Control Plan, rainfall runoff from 0.39 acre northeast of the limit of disturbance (LOD) will run onto the area within the LOD. Contours indicate that a 0.06-acre area could be diverted towards the north pond and 0.33-acre area could be diverted to Canal No. 1. The total length of diversion dike/swales needed would be 370 feet. Following MDEQ guidance, the design storm for temporary construction is a 2-year 24-hour storm, resulting in a peak flow ( $Q_p$ ) to the North Pond of 0.09 cubic feet per second (cfs), and  $Q_p$  to Canal No. 1 of 0.54 cfs. Design tables in the MDEQ guidance provide diversion sizing for flows greater than 5 cfs and result in a minimum swale width of 11.1 feet and a minimum diversion dike width of 4 feet for the 370-foot length. Considering the peak flows are much less than the minimum MDEQ design flows, and that considerable area would be disturbed to construct dike/swale diversions, it seems preferable to allow run-on to enter the site and be handled by current E&S control measures than to construct dike/swale diversions.

7. How was the location site of the Sediment Recovery Trap shown on Drawing C-105 determined? Why there?



**Response:** The Sediment Recovery Trap is located at the downgradient end of the ditch north of 8<sup>th</sup> Street to capture sediment that may migrate during ditch regrading and regrading of the mound east of the landfill.

8. For documentation purposes, will there be any sampling and testing of discharged water from site during rain events to determine whether or not there has been any leaching of contaminants from landfill during ground disturbance?

**Response:** Sampling and testing of site runoff water is not included in the design, although it may be considered for the Remedial Action Contractor's (RAC's) work plan. Contaminated soil will be exposed during site regrading.

**Comments from Jon Overholtzer, CH2MHILL**

1. Section 2.1 has a requirement for Turf Producers International (TPI) certification. This may be different from state certification which we previously encountered. The certification that I previously encountered was by the state agricultural department for the specific fields that a farmer grew. I will have to find out if this is the same thing. I just checked and this Site 3 specification is the same language used in the Site 4 specification where my turf supplier offered up a less expensive product not inspected by the state agricultural officer/or his delegate.

**Response:** With Site 4 and now Site 3, Navy has approved the TPI certification for use on the facility. Materials shall continue to meet the standards set by TPI.

2. The well specification required PVC casing and stainless steel well screen. Is that accurate?

**Response:** The monitoring well specification will be changed to indicate PVC well screens.

If you have any questions with regard to this submittal, please contact me via e-mail at Gregory.Roof@TetraTech.com or by phone at (904) 730-4669, Extension 215.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gregory S. Roof'.

Gregory S. Roof, P.E.  
Task Order Manager

GSR/lc

- c: Gordon Crane, NCBC Gulfport  
Bob Merrill, MDEQ  
Mike Jaynes, Tetra Tech  
Jon Overholtzer, CH2M HILL  
Debbie Humbert, Tetra Tech (letter only)  
RDM, Tetra Tech Pittsburgh (unbound, CD)  
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