

**DRAFT  
MEETING MINUTES  
CONCEPT REVIEW MEETING  
AREA A LANDFILL CAP DESIGN  
NAVAL SUBMARINE BASE - NEW LONDON  
GROTON, CT.  
MARCH 9, 1995**

**ATTENDEES:**

Al Briggs - HNUS  
Jim Briggs - USNavy  
Mark Schultz - USNavy  
Doug Carvenak - HNUS  
Michael Clark - TRC  
Kymberlee Kecker - USEPA  
Jeff Dale - USNavy  
Dave McDonald - Lockheed/ESAT  
Patti Lynne Tyler - USEPA  
Mike Hummel - NORTHDIV

Yoon-Jean Chol - USEPA  
Richard Conant - USNavy  
Ens. Mike Bartlett - USNavy  
Everett Millam - HRP Assoc.  
Low Riess - USNavy  
Mark Evans - USNavy  
David LaRiviere - CT DEP  
Glen Daraskovich - CT DEP  
Sally Snyder - CT DEP  
Mark Lewis - CT DEP  
Chris Stone - CT DEP

Post-it™ brand fax transmittal memo 7671		9 of pages 9	
To	MARK EVANS	From	AL BRIGGS
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A concept review meeting was held in Building #166 at Submarine Base New London in Groton, Connecticut on March 9, 1995. The purpose of the meeting was to identify and address key technical issues associated with the Area "A" Landfill Cap Design. Parties attending included the U.S. Navy, and its consultant HNUS; U.S. EPA, and its consultant TRC; and CT DEP, and its consultant HRP Associates. The following is a brief summary of key discussion items and key action items.

**DISCUSSION ITEMS:**

**1. INTRODUCTIONS:**

Self-introductions were made by each attendee.

**2. OVERVIEW:**

The U.S. Navy (Jim Briggs) presented the status of the project relative to the BRAC MCON Construction. The BRAC MCON 1993 is law that relocates the Sub School to Submarine Base New London. In order to accommodate the BRAC MCON 1993 schedule, the Area "A" Landfill was to be closed by November 1995. This required completion of the design by May 1995.

The BRAC MCON 1995 was recently announced. The BRAC MCON 1995 is not law. The BRAC MCON 1995 relocates the Sub School to Charleston, South Carolina, rather than Subbase New London. If BRAC MCON 1995 is passed, the Area "A" Landfill will not need to be closed by November 1995.

The current position of the U.S. Navy is to complete the design by June 1995, to provide flexibility if BRAC MCON 1995 is not passed.

**3. DESIGN PRESENTATION:**

HNUS (Carvenak) presented a design overview for the Area "A" Landfill Cap Design. Summary handouts were distributed. Preliminary design drawings were presented. Drawings consisted of the title sheet, regrading plan, final cover system grading plan, details and isopach.

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- U.S. EPA (Choi) requested a minimum of 3% slope after settlement, per Federal Regulations (this is not consistent with Atlantic's expectations regarding the regulators' flexibility).
- U.S. EPA (Choi) was comfortable with the low traffic plateau area cap detail and H-20 plateau area cap detail.
- U.S. EPA (Choi) wants to see 24" of cover for frost protection.
- U.S. EPA (Choi) prefers that the geosynthetic clay liner (GCL) be excluded from steep slope; he'd prefer an SM soil (USCS classification) as a 6" bedding layer beneath the geomembrane.
- U.S. EPA (Choi) suggested a substitution of 6 inches of ML or SM soils for the geosynthetic clay liner and a portion of the gas management/bedding layer on the sideslope area cap.
- U.S. EPA (Choi) suggested a substitution of low density polyethylene (LDPE) for the textured high density polyethylene (HDPE) (he claims that it is still available).

#### 4. STORMWATER MANAGEMENT:

- CT DEP (Stone) commented on the design approach to stormwater management.
- This project is covered under a "general construction permit".
- An Erosion and Sedimentation Control (E&SC) plan is needed.
- CT DEP (Stone) was comfortable with sheet flow to the sideslope area and wetlands, and with the position the southern run-on interceptor trench. Sheet flow is preferred.
- CT DEP (Stone) suggested a transition zone between the pavement and riprap (possibly a 2' layer of smaller (1" ) stone).
- Run-on Interception--Jim proposes that an energy dissipation structure be included (no basin is required).
- CT DEP (Stone) suggested provisions (such as a curb) to keep sand in place.
- CT DEP (Stone) would prefer to see a 4H:1V sideslope.
- CT DEP (Stone) suggested a silt fence set in pea-size stone berm, at the toe of the sideslope.
- CT DEP (Stone) indicated that the E&SC plan needs not be submitted independently.
- The effectiveness of the groundwater interception channel was discussed--no final position was established.

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**5. WETLANDS:**

- U.S. Navy (Briggs) provided an overview, including the issue of encroachment via temporary E&SC.
- U.S. EPA (Tyler) suggested that the specifications should provide the contractor with "strong wording" to stay out of wetlands, stake it, and use a silt fence.
- The U.S. EPA (Tyler) would like a wetlands "expert" on site during construction.
- The U.S. EPA (Tyler) indicated that an "alternatives analysis" will be required regarding the wetlands, and could be part of Design Analysis Document. This would address compliance with ARARs.
- The U.S. EPA (Tyler) indicated that the ACOE will not be involved.
- The U.S. EPA (Tyler) indicated that other natural resource trustees need to be involved.
- U.S. EPA (Tyler) recognizes that impact on wetlands will occur, and they understand that appropriate mitigation will occur.
- U.S. Navy (Evans) emphasized that much of the wetlands loss will be temporary.
- There is a relevant U.S. EPA document that was published last year: Wetlands at CERCLA sites.
- U.S. EPA (Choi) broached the collection of seeps. U.S. Navy (Evans) explained that groundwater is not a focus of this design. U.S. EPA (Choi) indicated that we must confirm the structural adequacy of the toe (i.e., uplift). U.S. EPA (Choi) remained uncomfortable without inclusion of a toe collection system.
- It appears that U.S. EPA is not concerned with nature/composition of leachate seeps along the north slope area, based upon recent sampling and analysis.

**6. PCBs:**

- U.S. Navy (Briggs) presented the consideration of leaving all PCBs in place.
- ? ● CT DEP (Lewis) indicated that their preference is for removal; in fact, they were uncomfortable with the 50 ppm (vs 10 ppm) clean-up goal below the 1' level, to a depth of 10'.
- There are proposed regulations/guidance within CTDEP regarding PCB clean-up.
- ? ● CTDEP (Lewis) is more concerned with leachability of PCBs than dermal contact.
- U.S. EPA (Choi) expressed that it may not be logical to dispose of PCBs at an offsite facility when the proposed cap meets TSCA requirements. U.S. EPA (Choi) is supportive of leaving PCBs in place.

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- U.S. Navy (Briggs) suggested a conference call with CTDEP to confirm their position.
- U.S. Navy (Briggs) suggested the possibility of stabilization of materials. However, this option was later downplayed based on cost.
- U.S. Navy (Briggs) asked HNUS to investigate PCB remedies at other sites.

7. METHANE EMISSIONS (LANDFILL GAS):

- HNUS (Briggs) gave an overview of the paper study performed by HNUS (which estimated methane emissions at between 12 to 20 TPY) and the proposed passive collection system.
- CTDEP (Daraskevich) would like to review our paper estimates prior to providing additional specific guidance.
- CTDEP (Daraskevich) explained that 5 TPY is a trigger only, and suggests only that additional evaluation be performed.
- CTDEP (Daraskevich) is not sure that we could sustain a flare at these rates; i.e., is it economically feasible?
- CTDEP (Daraskevich) indicated that "maximum allowable stack concentrations" for toxics be considered (Section 29)
- CTDEP (Daraskevich) doesn't really anticipate that an active collection system will be required.
- HNUS will add a cover sheet to the calculations, for submittal to CTDEP for review.
- There was some question as to whether or not a gas monitoring program is required.

8. ROCK DISPOSAL:

- U.S. Navy (Briggs) provided an overview of the offsite disposal concept, including washing of boulders and cobbles.
- U. S. EPA suggested that offsite disposal is acceptable, and CTDEP concurred.
- No mention was made of confirmatory testing (such as wipe tests) for these materials.

9. U.S. EPA (Choi) - DESIGN ISSUES:

- U. S. EPA (Choi) still recommends a toe drain along the north slope of the landfill.
- There was substantial pro/con discussion on this issue, and this issue will be discussed later.
- U.S. EPA (Choi) noted that we will have to deal with leachate during excavation of north face.

*calculations?*

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10. TRC (Clark) - DESIGN ISSUES:

- HNUS should consider dewatering effect in the consolidation calculations.
- The design should include provisions to deal with soft spots on the landfill surface.

11. EASTERN LANDFILL AREA:

- HNUS is to prepare a Work Plan for additional investigative activities in this area. Navy will issue scope change letter.
- U.S. EPA (Keckler) wants more sampling than would be typical for a landfill, including geophysics.
- HNUS (Briggs) reiterated that the area we are evaluating was not part of the landfilling activities, and apparently is soil backfill.

**ACTION ITEMS:**

The following is a summary of key action items and responsible parties as a result of the above discussion.

1. The U.S. Navy will coordinate telephone conference call(s) with U.S. Navy, U.S. EPA, CT DEP to discuss:
  - CT DEP's stance on PCBs
  - Wetlands issues
2. HNUS will provide a minimum grade of 3% for the final cover system (considering settlement).
3. HNUS will identify (if available) project examples of leaving PCBs in-place.
4. HNUS will substitute 6 inches of ML or SM soil for the geosynthetic clay liner and a portion of the gas management/bedding layer on the slope area cap.
5. HNUS will prepare a Work Plan for the Eastern Area.
6. HNUS will submit to the U.S. Navy theoretical methane calculations, for subsequent submittal to CTDEP.

*24 March*