PMSummerColpEM Resource

From: Sebrosky, Joseph
Sent: Tuesday, March 30, 2010 4:53 PM
To: PMSummerColpEM Resource
Cc: Spicher, Terri; Karas, Rebecca; Wilson, Jerry; Libby, Earl; Lukes, Robert; Kavanagh, Kerri; Patel, Raju; Anderson, Brian; Peralta, Juan; Ayres, David; Sheikh, Mina; Davis, Bradley; Stirewalt, Gerry; Bauer, Laurel; Cook, Christopher; Spencer, Michael; Cruz, Jeffrey; Burton, William; Vokoun, Patricia; Dozier, Tamsen; Joshi, Ravindra; Flanders, Scott; Zobler, Marian; Akstulewicz, Frank; Shuaibi, Mohammed
Subject: Reissue of Summary of March 29, 2010, phone call with applicant to discuss excavation activities at the Summer site
Attachments: image003.png; Unit 2 - Necessary Excavation.pdf

Note: This phone call summary is being reissued to:

1) Clarify that the driving of vertical piles started on February 15, 2010. The summary below indicates that the driving of the vertical piles ended on February 15, 2010.

2) Provide additional clarifying information.

Regarding clarifying information, subsequent to the phone call the applicant provided the following clarification of the status of the driving of the vertical piles, which started on February 15, 2010:

- 191 vertical piles are scheduled to be installed
- As of 3/30/10, 161 vertical piles have been installed, and 9 vertical pile installations are currently in progress
- The remaining 21 vertical piles are scheduled to be installed over the next several weeks.

In addition, the applicant provided the attached figure which shows the "necessary excavation" for Unit 2. The figure shows the area that the applicant has defined as "necessary excavation," and the location of the temporary retaining wall in relation to the "necessary excavation." The notes for the figure are repeated below for ease of reading:

NOTES:
NECESSARY EXCAVATION IS DEFINED AS THE AREA ENVELOPING THOSE STRUCTURES THAT FALL WITHIN THE DEFINITION OF CONSTRUCTION, BY THE GREATER OF EITHER:

i. THAT NEEDED FOR CONSTRUCTION ACCESS, VARYING FROM 10-30' FROM THOSE STRUCTURES WITHIN THE DEFINITION OF CONSTRUCTION, DEPENDING ON FOUNDATION TYPE (CONCRETE ON ROCK OR ENGINEERED BACKFILL)

ii. THE APPROXIMATE TOE OF SLOPE OF LOADING INFLUENCE FOR EACH SUCH STRUCTURE WHERE IT INTERSECTS THE UNDERLYING ROCK (BOTTOM OF EXCAVATION), USING A CONSERVATIVE SLOPE OF 1:1

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MEMORANDUM TO: File (Summer Units 2 and 3)

From: Joseph Sebrosky, Project Manager
AP1000Projects Branch (NWE1)
Division of New reactor Licensing
Office of New Reactors

Subject: Summary of March 29, 2010, phone call with applicant to discuss excavation activities at the Summer site

The purpose of the phone call was to discuss excavation activites at the Summer site

The NRC attendees were:
- Terri Spicher, Rebecca Karas, Jerry Wilson, Robert Luke, Kerri Kavanagh, Raju Patel, Brian Anderson, Juan Peralta, David Ayres, Mina Sheikh, and Bradley Davis

The applicant participants included:
South Carolina Electric and Gas (SCE&G): Al Paglia, Alan Torres, Brad Stokes, Bob Whorton, John Todd, Amy Monroe, Julie Giles, April Rice,
SHAW: Ev Washer, Jim Karmozyn, Nathan Cooke, Matt Cooke, Duncan Cookman,
Westinghouse: Bill Hutchins

Description of Excavation Activities

The agenda for the phone call appears below. Figure 2.5.4-220 below was used by the staff to better understand the description of the excavation activities. The applicant stated that excavation activities to the 400 foot elevation had been completed earlier this year for Summer Unit 2. Unit 2 retaining wall pile installation was completed around February 15, 2010, and excavation from the 400 foot elevation to the general rock surface began on March 15, 2010. The applicant indicated that the schedule for the excavation to reach the general rock surface level is February 2011. For Unit 3 the applicant intends to drive piles in the late August - early July 2010 time frame depending on the weather.

The applicant indicated that the "Temporary H Pile Wall" shown in the figure below consisted of piles driven approximately 10 feet from each other. Excavation is taking place in 5 to 6 foot increments. Boards or "lagging" are placed between the piles as the excavation progresses. In addition anchor tiebacks are installed at various depths to stabilize the temporary wall. Backfill will not be installed until the combined license is received. Eventually, the applicant intends to remove the lagging between the "H piles," detension the tiebacks, and cut the veritical piles off at the 390 foot elevation (i.e., 10 feet below finished grade). The remaining portion of the "H piles" will be abandoned in place.

Compliance with 10 CFR 50.10

The applicant stated that it used interim staff guidance (ISG) – 4, "Interim Staff Guidance on the Definition of Construction and on Limited Work Authorizations," in determining that the excavation activities described above could be done without a combined license (COL) or limited work authorization (LWA). The applicant stated that based on its interpertation of the definition of "necessary excavation" described in this ISG it could install the temporary "H pile" walls without an LWA or COL. The applicant indicated that the retaining wall would be no closer than approximately 10 feet to the outer wall of the nuclear island structure. In addition, the temporary wall would also be several feet from the footprint of the annex building and the first bay of the turbine building. The Annex building and the first bay of the turbine building are seismic category II structures. Both the annex building and the first bay of the turbine building are built on finished grade and the applicant stated that any backfill that is placed in the excavation for these facilities will be done after the combined license is received.

The staff indicated that it needed to discuss internally the applicant's position that an LWA or COL was not needed to drive the piles.

Other Issues

The applicant indicated that William Lettis and Associates and Shaw were performing geologic mapping during the excavation activities. The mapping is being done in accordance with procedures and a 10 CFR Appendix B program.

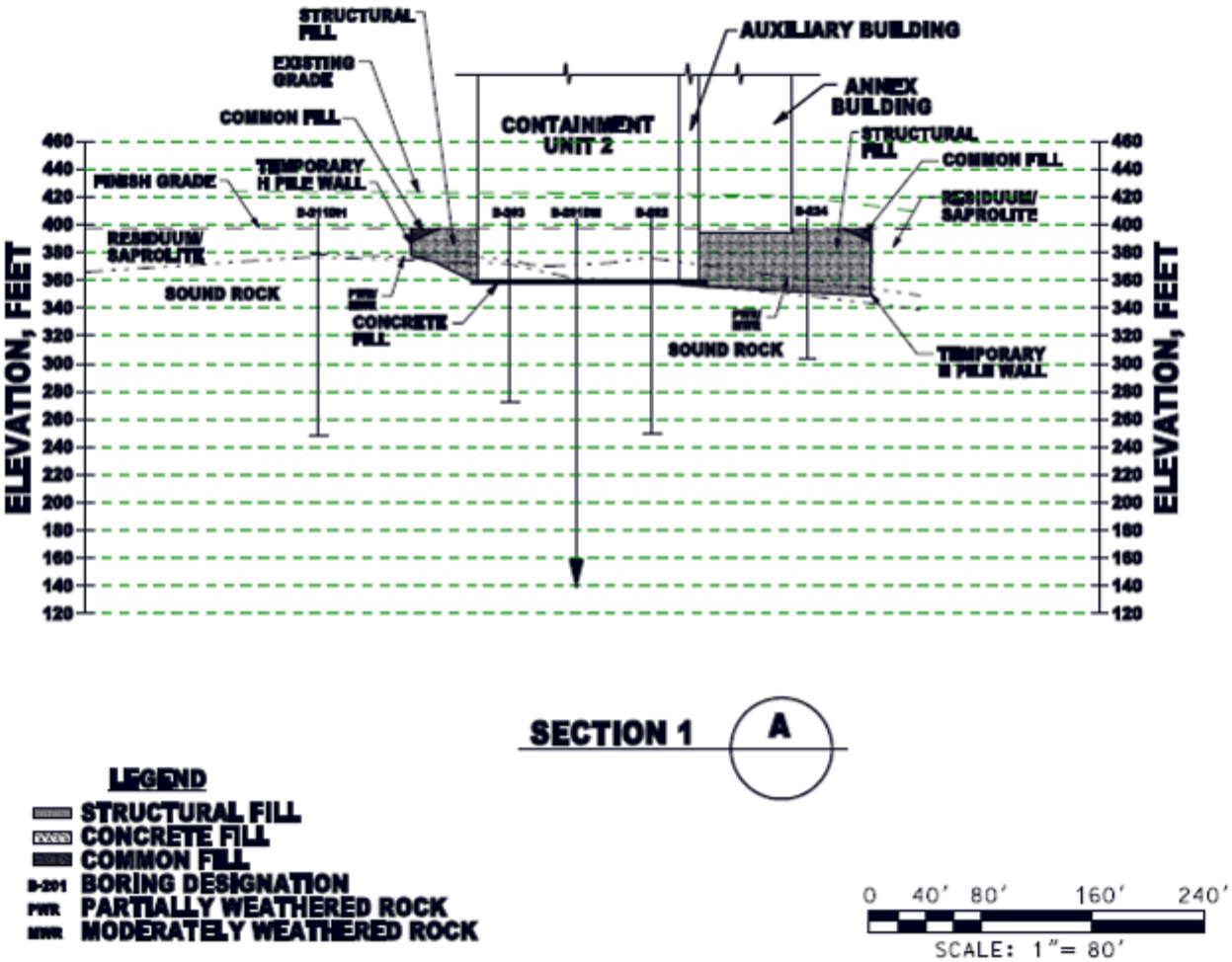

Figure 2.5.4-220. Cross-Section of Structure Foundation A-A

>>>>>>>>>>>>>>>>Agenda for the phone call>>>>>>>>>>>>>>>>

Purpose:
1) To Discuss Summer's excavation plans
2) To inform Summer of the staff's intention relative to license conditions for excavation activities
3) To discuss Summer's plans regarding pilings used during the excavation
4) To determine opportunities for future interactions with the NRC (e.g., meeting, site visits by the NRC geotechnical staff)

Outcome:
1) Clear understanding of Summer's excavation plans
2) Next steps identified (e.g., meeting, site visit)

Agenda:

1. Summer excavation plans (applicant)
    a. description of excavation activities
    b. schedule for excavation
    c. geological mapping activities taking place
        i. who is doing the mapping
        ii. schedule for the mapping
        iii. guidance documents that are being used for the mapping
    d. confirmation that the mapping is taking place in accordance with Summer's appendix B quality assurance program
    e. discussion of plans regarding pilings and how it complies with recent limited work authorization rulemaking

2. NRC expectations
    a. license condition envisioned for COLs

3. Next steps
    a. Identify areas needing further discussions
    b. possibility of face-to-face meeting
    c. opportunities to view/audit/inspect on-site activities

4. Wrapup

Hearing Identifier: VCSummer_COL_Public
Email Number: 265

Mail Envelope Properties (36CF286628C20846A68047F2463233091E5C373975)

Subject: Reissue of Summary of March 29, 2010, phone call with applicant to discuss excavation activities at the Summer site
Sent Date: 3/30/2010 4:52:57 PM
Received Date: 3/30/2010 4:53:00 PM
From: Sebrosky, Joseph

Created By: Joseph.Sebrosky@nrc.gov

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Files	**Size**	**Date & Time**
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Unit 2 - Necessary Excavation.pdf	152038	

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Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

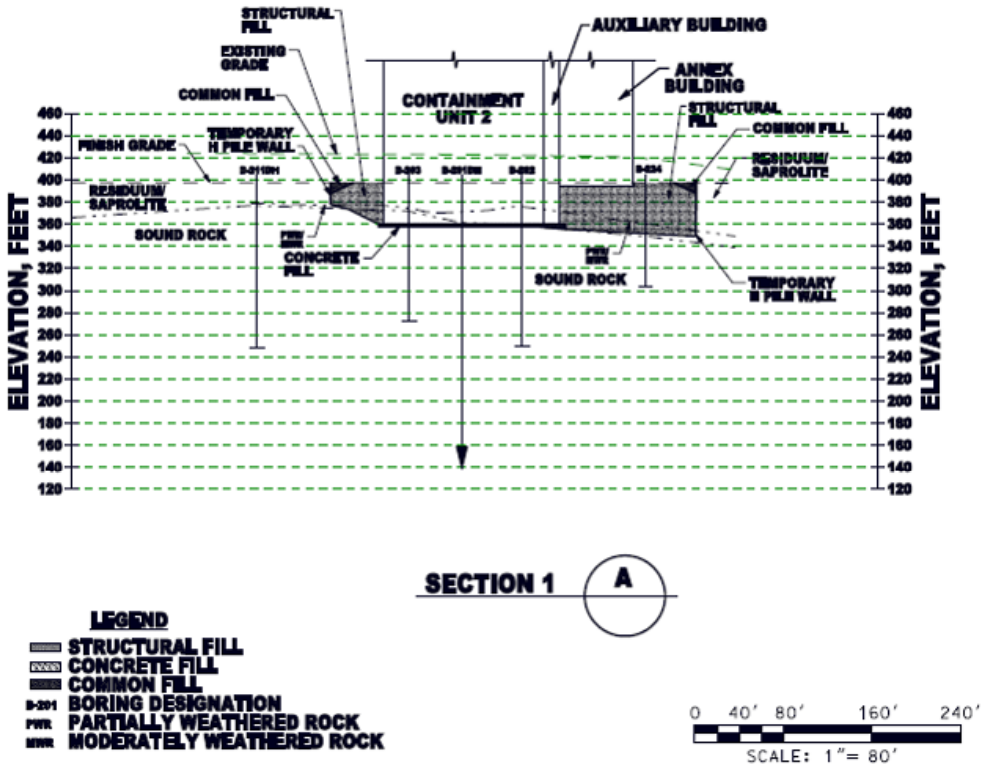
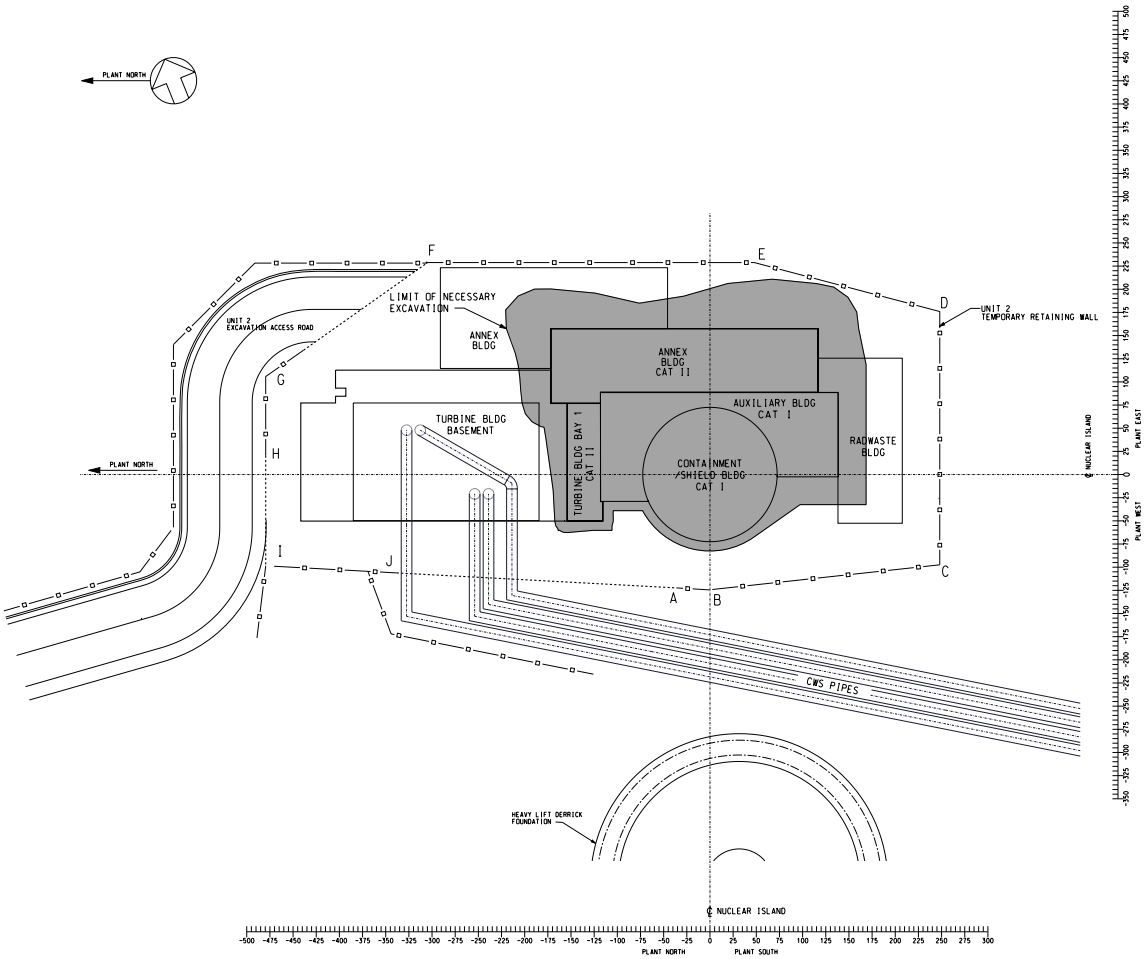


Figure 2.5.4-220. Cross-Section of Structure Foundation A-A



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LEGEND

- NECESSARY EXCAVATION
- TEMPORARY RETAINING WALL
- PROJECT LIMIT OF EXCAVATION
- C LOCATION IDENTIFIER FOR REFERENCE

DRAFT

VC SUMMER
UNIT 2
NECESSARY EXCAVATION SKETCH