

CCNPP3COLA PEmails

From: Lutchenkov, Dimitri [dimitri.lutchenkov@unistarnuclear.com]
Sent: Wednesday, February 23, 2011 3:08 PM
To: 'Anderson, Kathy NAB'
Cc: 'Francis, Woody NAB'; Quinn, Laura
Subject: RE: Mitigation Table (UNCLASSIFIED)
Attachments: UN#10-282 - Updated Dredging Work Descriptions - letter.pdf; NRC Comments Enclosure 3 Rev 1.pdf

Importance: High

The first document has the work descriptions and the second is important in that it clears up some descriptive text that MDE used as compared to that provided in the latter.

Regards,
Dimitri Lutchenkov
Director | Environmental Affairs|
UniStar Nuclear Energy
410-470-5524 | m 410-370-9090

-----Original Message-----

From: Anderson, Kathy NAB [<mailto:Kathy.Anderson@usace.army.mil>]
Sent: Wednesday, February 23, 2011 2:58 PM
To: Lutchenkov, Dimitri
Cc: Francis, Woody NAB; Quinn, Laura
Subject: RE: Mitigation Table (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dimitri,

I'm looking for the tidal summary. I'm done as far as I can go. The tidal language will be a sentence or two. I'm sending my information to our Office of Counsel now. They already provided comments. Now they will see all the comments together. I'll check in with you on Friday. We will be in a meeting all day tomorrow.

Thank you,
Kathy B. Anderson
Chief, Maryland Section Southern
U.S. Army Corps of Engineers, Baltimore District Operations Division, Regulatory Branch
(410) 962-5690
(410) 962-6001(fax)
kathy.anderson@usace.army.mil

<http://www.nab.usace.army.mil/Regulatory/index.html>
<http://www.facebook.com/USACEBaltimore>

-----Original Message-----

From: Lutchenkov, Dimitri [<mailto:dimitri.lutchenkov@unistarnuclear.com>]
Sent: Wednesday, February 23, 2011 2:56 PM
To: Anderson, Kathy NAB
Cc: 'Burkman, Jim'

Subject: RE: Mitigation Table (UNCLASSIFIED)

I believe so. The document is officially called the "draft" summary. You should be good to go.

Regards,
Dimitri Lutchenkov
Director | Environmental Affairs|
UniStar Nuclear Energy
410-470-5524 | m 410-370-9090

-----Original Message-----

From: Anderson, Kathy NAB [<mailto:Kathy.Anderson@usace.army.mil>]
Sent: Wednesday, February 23, 2011 2:36 PM
To: Lutchenkov, Dimitri
Subject: RE: Mitigation Table (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks. What about the summary. I have the 11-17-2010 draft version. Was that document finalized?

Thank you,
Kathy B. Anderson
Chief, Maryland Section Southern
U.S. Army Corps of Engineers, Baltimore District Operations Division, Regulatory Branch
(410) 962-5690
(410) 962-6001(fax)
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<http://www.nab.usace.army.mil/Regulatory/index.html>
<http://www.facebook.com/USACEBaltimore>

-----Original Message-----

From: Lutchenkov, Dimitri [<mailto:dimitri.lutchenkov@unistarnuclear.com>]
Sent: Wednesday, February 23, 2011 2:25 PM
To: Anderson, Kathy NAB
Subject: FW: Mitigation Table
Importance: High

The requested information is attached. Please call or e-mail if you have any questions.

Regards,

Dimitri Lutchenkov
Director | Environmental Affairs|
UniStar Nuclear Energy
410-470-5524 | m 410-370-9090

From: Burkman, Jim [<mailto:Jim.Burkman@constellation.com>]
Sent: Tuesday, February 08, 2011 4:53 PM
To: 'Francis, Woody NAB02'
Cc: Lutchenkov, Dimitri; Miller, Edward A
Subject: Mitigation Table
Importance: High

Hi Woody,

Per your request, the attached table has been revised with regards to describing surplus acreage. In the interest of time I wanted to send it to you via email, but it will come your way officially via a UniStar cover letter.

Please let me know if you have any questions.

Thanks,

Jim

Jim Burkman
Environmental Services Group
Constellation Generation Group
(410) 787-5130 @ Fort Smallwood
(410) 382-4437 Cell Phone

Classification: UNCLASSIFIED
Caveats: NONE

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Classification: UNCLASSIFIED
Caveats: NONE

Hearing Identifier: CalvertCliffs_Unit3Cola_Public_EX
Email Number: 1687

Mail Envelope Properties (8852DC5CCE002145A0541E8D6153E6790474D3F8)

Subject: RE: Mitigation Table (UNCLASSIFIED)
Sent Date: 2/23/2011 3:07:44 PM
Received Date: 2/23/2011 3:09:26 PM
From: Lutchenkov, Dimitri

Created By: dimitri.lutchenkov@unistarnuclear.com

Recipients:

"Francis, Woody NAB" <WOODY.FRANCIS@usace.army.mil>
Tracking Status: None
"Quinn, Laura" <Laura.Quinn@nrc.gov>
Tracking Status: None
"Anderson, Kathy NAB" <Kathy.Anderson@usace.army.mil>
Tracking Status: None

Post Office: VA3DIAXVS711.RED001.local

Files	Size	Date & Time
MESSAGE	3981	2/23/2011 3:09:26 PM
UN#10-282 - Updated Dredging Work Descriptions - letter.pdf	58176	
NRC Comments Enclosure 3 Rev 1.pdf	356287	

Options

Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



November 11, 2010

UN#10-282

Jonathan Stewart
Tidal Section - Wetlands and Waterways Division
Maryland Department of the Environment
Water Management Administration
1800 Washington Boulevard
Baltimore, Maryland 21230

Woody Francis, Project Manager
U.S. Army Corps of Engineers – Baltimore District
10 S. Howard Street
Baltimore, Maryland 21201

Subject: Updated Work Description for Tidal Impacts and Dredge Area Sediment Sampling
Test Results for Calvert Cliffs Nuclear Power Plant, Unit 3 in Calvert County,
Maryland, MDE Project Number 08-WL-1462 (T), 09-NT-0191 (NT),
USACE Tracking No. NAB-2007-08123-M05

Enclosure 1 contains updated work descriptions associated with the Joint Federal/State Wetland Permit Application dated 5/16/2008. The updated work descriptions are for tidal impacts only and reflect updated dredge material quantities, a change in pipe cover material for the discharge pipe and fish return, and additional information on the amount of shoreline revetment being impacted by construction.

The dredge material quantity has increased from 58,400 to a total of 66,600 cubic yards which in part reflects the decision not to use dredge material as pipe cover for the fish return and discharge pipe. The amount of material also reflects an increase in dredge material resulting from restoring the barge dock. A breakdown of the dredged material by impact area is as follows:

Intake Area – 1,000 cubic yards

Fish Return – 100 cubic yards

Discharge Pipe – 5,500 cubic yards

Restoration of Barge Unloading Facility – 60,000 cubic yards

Total – 66,600 cubic yards

The area of tidal impact stated in the Joint Federal/State Wetland Permit Application remains the same at 5.7 acres.

Enclosure 2 contains the sediment characterization final report. Physical and chemical analyses of the sediment to be dredged were conducted to evaluate potential placement options.

If you have any questions concerning the attached document, please call Mr. Jim Burkman at (410) 470-5130.

Sincerely,

Greg Gibson

Enclosures – 1) Updated Work Descriptions for Tidal Impact, October 2010
2) Calvert Cliffs Nuclear Power Plant, Unit 3 Project, Sediment Characterization Final Report, EA Engineering, Science, and Technology, Inc., October 2010

cc: Jim Butch - EPA
Susan Gray – Power Plant Research Program
Cheryl Kerr – MDE
John Nichols - NMFS
Laura Quinn – NRC
Bob Zepp – USFWS
Greg Golden - MDNR
Kathy Anderson - USACE
Bob Sadzinski - MDNR
Roland Limpert - MDNR
Michael Mansolino - EPA
Harriet Nash - NRC
Mary Ann Parkhurst - PNL
Roy Kropp - PNL

bcc: Jim Burkman – Constellation (w/enclosures)
Lisa Decker – Constellation (w/o enclosures)
Lee Rabideau – Bechtel (w/enclosures)
Dimitri Lutchenkov - UNE (w/o enclosures)
Ed Miller – Constellation (w/o enclosures)
Matt Kelly – Greenhorne & O'Mara (w/o enclosures)

UN#10-282

Enclosure 1

**Updated Work Descriptions for Tidal Impact
October 2010**

Work in Tidal Areas:

Work in tidal areas will be restricted to four major areas. The following paragraphs will describe the scope of work in each of these areas.

1. Unit 3 Intake Area

The work in the Unit 3 Intake area will include two major components: a) installation of a permanent sheet pile wall and b) installation of temporary sheet pile wall. The details of the work are shown on Figure 3.

a) **Permanent Sheet Pile Wall:** A new sheet pile wall will be installed to construct Unit 3 intake area. The sheet pile wall will extend approximately 180 feet from the existing shoreline to the existing baffle wall. The sheet pile wall will be located approximately 90 feet channelward of the approximate mean high water shoreline. The new sheet pile wall along with the existing baffle wall and the shoreline will create a 9,000 square foot wedge-shaped pool. To facilitate installation of the permanent sheet pile wall, approximately 50 feet of the existing shoreline armor protection will be removed. A new armor protection, approximately 75 feet long, will be installed adjacent to the new sheet pile wall. The armor protection, consisting of imported coarse sand / stone, will extend approximately 95 feet channelward.

b) **Temporary Sheet Pile Wall:** To facilitate the installation of the intake pipes, a temporary sheet pile wall will be installed after removal of the existing (approximately 60 feet along the shoreline) armor protection. The temporary sheet pile wall will extend approximately 35 feet (average) into the wedge-shaped pool. The area within the sheet piling will be dewatered and mechanically dredged to create an approximately 30-feet wide by 35-feet long by 25-feet deep area. Subsequently, extending approximately 20 feet channelward, two 60-inch diameter intake pipes (with trash rack and associated structures) will be installed with the bottom elevation at - 25 feet mean low water. Shoreline armor protection (about 10 feet channelward) will be restored as required. The temporary sheet pile wall will then be removed to flood and submerge the intake pipes. The sand and gravel removed by dredging (approximately 1000 cubic yards) will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake Davies laydown area.

2. Unit 3 Fish Return

A fish return system similar to the existing Unit 1/Unit 2 fish return will be installed as part of the intake structures. The work related to the fish return system in the tidal areas includes installation of a discharge pipe and a rip-rap apron along with associated dredging.

The discharge pipe will consist of an 18-inch diameter high density polyethylene (HDPE) pipe which will be installed approximately 4 feet below the bay bottom in a mechanically excavated trench. The pipe will outfall about 40 feet channelwards from the existing shoreline. The location of the outfall will be protected with a riprap apron. To facilitate installation of the pipe, existing shoreline revetment (approximately 65 feet along the shoreline) will be removed and replaced. This dredging will temporarily impact approximately 100 cubic yards of material. The pipe trench will be filled with imported coarse sand/stone fill. The existing shoreline revetment will be restored to its original configuration after installation of the pipe. Turbidity curtains will be utilized during construction to contain suspended sediments. The sand and gravel removed by dredging will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake

Davies laydown area.

3. Discharge Outfall Pipe

A 30-inch diameter HDPE pipe with three single port diffusers will be installed in a mechanically excavated trench. The discharge point at the diffusers will be elevated approximately 3 feet above the bay bottom. The pipe will extend approximately 550 feet channelward and will be buried approximately 4 feet below the bay bottom. This burial depth will prevent damage of the pipe from storms and small boat anchors. To facilitate installation of the pipe, existing shoreline revetment (approximately 70 feet along the shoreline) will be removed and replaced. This installation will temporarily impact approximately 38,500 square feet (approximately 0.9 acres) area at the bay bottom. Additionally, a riprap scour pad will be installed at the diffuser outfall permanently impacting 800 square feet area at the bay bottom. The excavated trench will be filled with approximately 5,500 cubic yards of imported coarse sand/stone material. The dredged material (5,500 cubic yards) will be deposited onsite at an existing upland (non-wetland) environmentally controlled Lake Davies laydown area. Turbidity curtains will be utilized during construction to contain suspended sediments.

4. Restoration of Barge Unloading Facility including Maintenance and New Dredging

The existing barge unloading facility is intended to be utilized to receive equipment and materials for the construction of the Unit 3. The existing barge slip will be restored and extended to re-establish use of an approximately 1,500 feet long and 130 feet wide (average) channel. The channel area (about 195,000 square feet) will be dredged to a bottom elevation of -16 feet mean low water. The initial 1,065 feet length of the dredging is considered maintenance dredging. The remaining 435 feet is considered an extension beyond the original dredging limits to reach the bottom elevation of -16 feet mean low water. Of 60,000 cubic yards of total estimated dredging, 57,000 cubic yards are considered maintenance dredging and 3,000 cubic yards are considered new dredging. The two existing pile cap crane supports and one mooring bollard located in the channel will also be removed.

The dredged material will be deposited at existing onsite upland (non-wetland) environmentally controlled Lake Davies laydown area. Turbidity curtains will be utilized during construction to contain the suspended sediments.

The scope of work in this area will also include maintenance dredging near the shoreline to remove sediments which have mounded up over the past 30 years and restoration of an existing culvert outfall. Due to silt build up over the years, the discharge from this outfall meanders in a north-south direction prior to discharging into the barge slip area. The restoration activities in this area will include the installation of a riprap apron (Figure 6J) in front the existing outfall allowing the discharge to flow directly in the bay as originally designed. The riprap apron will extend approximately 40 feet channelward.

Additionally, a new sheet pile wall will be installed along the shore line in front of the existing bulk head which was built as part of the original design. On the land side of the new sheet pile, a concrete apron will be placed along with a gravel apron to allow equipment to be off-loaded from barges with wheel mounted transporters.

Enclosure 2

**Calvert Cliffs Nuclear Power Plant
Unit 3 Project
Sediment Characterization Final Report
EA Engineering, Science, and Technology, Inc.
October 2010**

DISPOSITIONING OF NRC COMMENTS ON ENCLOSURE 3 TO UN#11-069

Notes:

1. Utilizing the project figures, the tidal MDE Work Descriptions are intended to extract, interpret, and describe work being performed in tidal areas only. This tidal Vs nontidal breakdown can lead to some ambiguity when reading the description. However, it is the figures not the Work Description that are incorporated into any permits.
2. The designs provided in the updated figures are consistent with the figures/designs provided to NRC in July 2008. UniStar has recently provided MDE clarifications regarding certain dimensions as requested by MDE. In addition, some of the numbers provided in MDE's project description were developed by MDE, not UniStar, based upon the scaled figures provided by UniStar.
3. The numbers in the left hand column of the table are a cross-reference to the numbers on the annotated Work Description attached.

	NRC Comment	Resolution
1	This appears to be new information. <i>"(1B) to construct 100 linear feet of stone armor protection a maximum of 95 feet wide extending a maximum of 100 feet from the MHWL parallel to the 180 foot sheet pile wall;"</i>	This is a component shown in Figure 3b (scaled drawing) which has been defined with a dimension.
2	EIS has 30x 35 x -25 Vs "(1C) to mechanically dredge a 30-foot long by 30 -foot wide area, 900 square feet, to a depth of -25 feet at MLW"	UN#10-282 shows 30x35x -25. The work description is an interpretation of the figures which take into account the distinction between tidal and nontidal (USACE does not make this distinction in their reviews). As such, there may be slight interpretation differences in the work description text compared to what is shown in the figures. The shoreline area is actually considered uplands as it has a rip rap all around it and the impact is included in the grading permit. The USACE used the total area of the intake even though part of it was being carved out of the shoreline, there is really no nontidal impact here.
3	Trash rake is new information for EIS (not previously seen in any other documents).	This is a design detail that has not been previously identified but was required for this Work Description document developed by MDE.
4	ER pg 3-31 identifies this dimension as 20 feet. <i>"(ID) to construct a 30 foot by 30 foot trash rack containing two 60-inch intake pipes extending a maximum of 30 feet from the MHWL;"</i>	This is a MDE description of the location of the 60 inch pipe relative to the original shoreline.
5	NRC indicates that they have not seen this scope before. <i>"(1E) to emplace 30 feet of stone revetment a maximum of 60 feet from the MHWL;"</i>	This is a design detail that has not been previously called out (implied) which explicitly captures the replacement of existing revetment in place prior to construction.

DISPOSITIONING OF NRC COMMENTS ON ENCLOSURE 3 TO UN#11-069

	NRC Comment	Resolution
6	NRC has a value of 100 cu yd. “(2A) ... resulting in approximately 500 cu. yd. of dredge material;”	The 500 cu yd value was the original value and has since been refined as the design matured. UN#10-282 identifies 100 cu yd. This appears to be a typo in the draft MDE document forwarded in UN#11-069. The tidal wetland license will be issued at 100 cu. yd.
7	According to NRC this is 48ft in ER not 45ft.	The 3 foot discrepancy is a nuance of design maturity. The fish return is now positioned in the middle of the stone apron. The dimension of the stone apron remains the same and consequently the permanent impact to bay bottom is unchanged.
8	ER defines backfill not clean fill	Based on sediment analysis of material in proposed dredge area, strict interpretations of COMAR specifications, and constructability, the reuse of previously dredged material is not feasible.
9	NRC indicates that they have not seen this scope before. “(2E) to emplace 70 feet of stone revetment a maximum of 60 feet channelward from the MHWL.”	This is a design detail that has not been previously called out (implied) which explicitly captures the replacement of existing revetment in place prior to construction.
10	NRC requested that this value be confirmed.	This has been identified as a revised value in UN#10-282. Correction is the result of not reusing dredged material and calculation refinement.
11	(3C) NRC indicates that ER Rev 7 does not give dimensions, only around diffuser.	This detail is not described in the ER but was identified in UN#10-282.
12	NRC indicates that they have not seen this scope before. “(3F) to emplace 70 feet of stone revetment a maximum of 60 feet channelward of the MHWL.”	This is a design detail that has not been previously called out (implied) which explicitly captures the replacement of existing revetment in place prior to construction.
13	NRC did the math and indicates that 150 should be 130 to get 195,000 sq ft.	The barge channel varies in width from 100ft to 150ft. The 130 ft wide value utilized in other documentation is the average width. The Work Description utilizes the maximum width for description. The actual quantity (sq ft) of dredge material is calculated by detailed analysis and should not be interpreted as the product of the length and maximum with presented in the Work Description.
14	The “18-inch thick sheet pile wall” is new information.	This is a design detail that has not been previously identified but was required for this Work Description document developed by MDE.

DISPOSITIONING OF NRC COMMENTS ON ENCLOSURE 3 TO UN#11-069

	NRC Comment	Resolution
15	This appears to be new information.	This dimension explicitly identifies that the new sheet pile wall will be 18 inches in front of the existing barge. UN#10-282 discusses this in text.
16	NRC identified this as 40 feet not 30 feet	The distinction is tidal Vs nontidal. Figure 6J shows a dimension of 40 ft for the structure as well as 10 feet and 30 feet for "Nontidal" and "Tidal", respectively.
17	NRC believes this a typo and should be the same value of 60,000 cu yd. as in (4A)	In UN#10-282 identifies that the barge dock alone is 60,000 cu. yd. (previously 50,000 cu. yd.). The total dredged material (barge channel +discharge pipe + fish return + intake area) was rounded up from 66,600 cu. yd to 67,000 cu. yd. in the Work Description.

Unistar Nuclear Energy has applied, in support of a proposed nominal 1,710 Megawatt nuclear power generation station (Unit #3), (1) **to construct an intake area** by (1A) to construct an 18-inch thick sheet pile wall extending a maximum of 180 feet from the MHWL (Mean High Water Line) connecting to the existing baffle wall for the intake area of Unit #1 & #2; (1B) to construct 100 linear feet of stone armor protection a maximum of 95 feet wide extending a maximum of 100 feet from the MHWL parallel to the 180 foot sheet pile wall; (1C) to mechanically dredge a 30-foot long by 30-foot wide area, 900 square feet, to a depth of -25 feet at MLW (Mean Low Water) resulting in approximately 1000 cu. yd. (cubic yards) of dredge material; (1D) to construct a 30 foot by 30 foot trash rack containing two 60-inch intake pipes extending a maximum of 30 feet from the MHWL; (1E) to emplace 30 feet of stone revetment a maximum of 60 feet from the MHWL; (2) **to construct a new fish return** (2A) to mechanically dredge a 65-foot wide area extending a maximum 45 feet channelward of the MHWL to a maximum depth of - 6.5 ft at MLW resulting in approximately 500 cu. yd. of dredge material; (2B) to emplace 40 feet of 18-inch HDPE pipe extending a maximum of 40 feet channelward of the MHWL; (2C) to construct a 10-foot long by 10-foot wide by 2-foot thick stone apron extending a maximum 45 feet channelward of the MHWL; (2D) to emplace approximately 500 cu. yd. of clean sand/stone fill covering the 18-inch HDPE pipe (2E) to emplace 70 feet of stone revetment a maximum of 60 feet channelward from the MHWL; (3) **to construct a discharge pipe** by (3A) to mechanically dredge a 70 foot wide area extending a maximum of 550 feet channelward of the MHWL to a maximum depth of - 16.5 feet at MLW resulting in approximately 5,500 cu. yd.; (3B) to emplace 550' of 30-inch HDPE extending a maximum of 550 feet of the MHWL; (3C) to construct a 20-foot long by 40-foot wide by 2-foot thick stone scour pad extending a maximum of 560 feet channelward of the MHWL; (3D) to construct a discharge diffuser elevated approximately 3 feet above the bottom substrate extending a maximum of 555 feet channelward of the MHWL; (3E) to emplace approximately 5,500 cu. yd. of clean sand/stone fill covering the 30-inch HDPE pipe; (3F) to emplace 70 feet of stone revetment a maximum of 60 feet channelward of the MHWL; (4) **to restore a barge unloading facility** by (4A) to mechanically dredge a 1,500-foot long by 150-foot wide (195,000 sq. ft.) area extending a maximum of 1,500 feet channelward of the MHWL to a maximum depth of - 16 feet at MLW resulting in approximately 60,000 cu. yd. of dredge material; (4B) to construct a 90-foot long by 18-inch thick sheet pile wall within a maximum of 18-inches channelward of an existing deteriorated bulkhead; (4C) to construct a 40-foot long by 40-foot wide by 2-foot thick stone apron extending a maximum of 30 feet channelward of the MHWL; (5) **to dispose of dredge material** by (5A) to transport approximately 67,000 cu. yd. of dredge material to the approved upland disposal site known as Lake Davies located on-site. The purpose of the project is to provide supporting structures and facilities for a proposed nominal 1,710 Megawatt nuclear power generation station (Unit #3). For more information contact Jonathan Stewart at 410-537-3059 or jstewart@mde.state.md.us. The project is located at 1650 Calvert Cliffs Parkway in Lusby, Maryland on the Chesapeake Bay in Calvert County.