

CCNPP3COLA NPEmails

From: Thomas Fredrichs
Sent: Wednesday, August 13, 2008 9:43 AM
To: Wrobel, George; Price, John (UniStar)
Cc: Harriet Nash; Kropp, Roy K; Laura Quinn; Thomas Fredrichs; CCNPP3COL Resource; James Biggins
Subject: Rev 3 Draft of Calvert Cliffs Aquatic RAIs
Attachments: Aug 2008 Aquatic Ecology RAIs DRAFT_R.3.doc

George & John:

Additional small revisions

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Item	RAI #/ Supp. ER Section	RAIs Resulting from RAI Responses and Supplemental Environmental Report (Supp. ER)
RAI Responses—AQUATIC ECOLOGY		
1	RAI #12	This response references a 2006–2007 entrainment study: <i>EA, 2007b. EA Engineering, Science, and Technology, Inc., Entrainment Characterization Data Report for Calvert Cliffs Nuclear Power Plant. Prepared for Constellation Generation Group. July, 2007.</i> Please provide a copy of the report.
2	RAI #12	This response references a letter from NMFS that states that it is not necessary to conduct an EFH evaluation for cobia, king mackerel, and Spanish mackerel. <i>NMFS, 2008. Chiarella, L., Pers. comm. National Marine Fisheries Service. 2008.</i> Please provide a copy of this letter.
3	AE-9	Please provide a copy of the CCNPP Unit 3 Storm Water Management Plan, April 2008 that was referenced in this and other RAI responses.
4	RAI #16/ #17	Most of the information presented in these updated sections may prove to be useful, but has not been documented well. Two examples are provided. Only one reference, a Smithsonian Institution website, is cited for the beaver (SI 2008); much of the information about the beaver in the RAI response is not documented on that website. One citation is provided for the Atlantic Loggerhead Turtle (NatureServe Website). The website does not document much of the information provided in the text, especially the Chesapeake-specific data. For example, the response states that 2,000–10,000 young loggerheads forage in the bay during the summer. No support for this “fact” is offered. Information about the white perch habitat in Chesapeake Bay is not found on the NatureServe (2007k) website that is the only citation listed for the Habitat Requirements section. Please provide additional citations to document the facts presented in the RAI response.
5	RAI #16	Several species accounts have been incompletely put together. The Atlantic loggerhead turtle is said to nest on sandy beaches. Where are these nesting beaches located? Are any located in Chesapeake Bay? The population dynamics section for Kemp’s Ridley Turtle only discusses threats and does not provide any information about population trends or status for the species. Provide information on population trends or status for the species as it relates to the Chesapeake Bay area. Weakfish: no information specific to Chesapeake Bay populations was provided. Provide information on weakfish populations and distribution that is specific to Chesapeake Bay Alewife are said to spawn in spring, perhaps as late as May (Life History section), but also to spawn in spring and <i>summer</i> (Reproduction Comments). When do alewife spawn in Chesapeake Bay?

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		Blueback Herring are said to spawn in “deep, swift freshwater” (Habitat Requirements) or in “quieter, upper portions of streams and creeks” (Life History section). This seems a conflict. What is the preferred spawning habitat for blueback herring as it relates to Chesapeake Bay? A quote about blueback herring and alewife population changes was attributed to Greg Garman. Provide documentation for the quote. The response mentions that green and leatherback turtles were not observed near the plant in 2006-2008, but does not provide any information about their general occurrence in Chesapeake Bay. Please provide information about the general occurrence of green and leatherback turtles in Chesapeake Bay. The section on soft-shelled clam doesn't provide information about the occurrence of the species near the plant although the response to RAI #97 states that the species has been a focus of a special study at Calvert Cliffs. Provide information about the occurrence of soft-shelled clams at the CCNPP site.
6	RAI #58/ #63	Several parts of this response (and RAI #63) vary with information provided in Section 3 of the Supp. ER issued in May 2008. Please resolve the apparent discrepancies concerning dredging. - RAI #58 states (and RAI #63 repeats) that dredging will occur “<i>within the existing CWIS embayment behind the baffle wall...</i>” Supp. ER Sections 3.4 and 3.7 state that a new wedge-shaped <i>expansion of the existing CWIS</i> intake for Units 1&2 will be dredged, then a new wall will be installed. Which description is correct? - RAI #58 states (and RAI #63 repeats) that about <i>15,000 cubic yards</i> of material will be removed to enlarge the barge slip. Supp. ER Section 3.9.2 states that about <i>60,000 cubic yards</i> of material will be removed. What is the correct amount of material anticipated to be dredged? - RAI #58 states (but RAI #63 does not state) that pilings may be driven to support the pipeline installation. The Supp. ER also does not mention the possible installation of pilings for pipeline installation. Will pilings be driven in Chesapeake Bay to support the pipeline installation? If so, what type of pilings will be used and how will they be installed? If wood pilings are used, will they be treated (what type)? If barges will be used for pile driving, how will they be positioned (e.g., anchors, jack-up supports)? If pile driving will occur, the response to RAI #62 needs to be revisited. - RAI #58 states (and RAI #63 repeats) that the potential for anchor scarring of the benthos is small. What is the basis for this conclusion? If anchors are used, the potential impacts can extend well beyond the dredging area. This may not be a factor for the barge area because dredging will be from shore, but could be an issue for the pipeline trenching. Explain whether this is an issue for the barge area because dredging will be from shore and whether this is an issue for the pipeline trenching.
7	RAI #59	What is the basis for the conclusion that prop wash impacts to the benthos will be small? What size vessels will use the barge dock? How

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		often will it be used?
8	RAI #61	RAI #61 requested information about the discharge pipeline installation. The response provides some of the physical dimensions of the pipe and diffuser system. Supp. ER Section 3.8 does not provide any details about the pipeline dredging. Please provide specific information about the pipeline installation. - The response states that the trench will limited to that needed to install the pipe, but doesn't give any details. <u>How wide will the trench be dredged? How much material will be removed? Where will it be disposed?</u> - The response states that riprap or stone will be used to cover the pipe. <u>What size and type of rock (riprap) will be used to cover the outfall pipe and to protect the diffuser? To what width around the pipe and diffuser will the rock be placed? How far above sediment grade will the riprap extend? Figure 3.8-3 of the Supp. ER appears to show that the top of the pipe will be about 4 ft beneath the bay bottom, but shows that the pipe will be covered with riprap and filter. What is "filter"? [typo for filler?] The figure also suggests that part of the trench may be filled with material other than riprap. If so, what is that material and what is its source?</u>
9	RAI #62	This RAI requested a <i>description</i> of the possible impacts associated with pile driving. Only a <i>list</i> of three possible impacts was provided. <u>If pile driving will be used during the project, describe the potential impacts from sediment deposition (how much, to what extent?), noise (what levels and duration, any impacts to fish, birds, turtles?), and intense vibrations (how intense and for what duration, taxa most likely affected?). Also, if treated-wood pilings will be used, describe the potential impacts associated with that usage.</u>
10	RAI #92/ #93	More recent entrainment data are available (see note for RAI #12 above). <u>Why weren't these recent data used? Would the calculated losses from entrainment differ had the recent data been used? Do the recent data suggest differences from the historical data in the taxa or relative abundance of taxa impacted?</u> The response states that NOAA (2008) data (which are actually for 2006-7) demonstrate that historical data are valid to use in the assessment of entrainment impacts. <u>Provide the NOAA and historical data, or representative examples that support the conclusion.</u>
Supplemental Environmental Report Questions—Aquatic Ecology		
11		The Supp. ER cites many documents, but no reference section was provided.
12	Supp. ER 3.0	Section 3.2 describes the construction activities that will occur. Uploading Facilities Installation bullet mentions that "crane foundations will be placed to erect a new heavy lift crane." There is no further description of crane foundation placement in the description of the Barge Uploading Facility (Section 3.9). <u>Will new crane foundations be placed at the Barge Facility? If so, describe the foundations, their locations, and how they will be placed.</u>
13	Supp. ER 3.4.1/ 3.7.2.2	The Unit 3 intake system will involve a wedge-shaped expansion of the Units 1&2 forebay. <u>What is the area of this wedge-shaped expansion? What is the current water depth in the wedge? To what depth will it be dredged? How much material will be removed? Where will it be disposed? What size and type of rock will be used for the new armored section? What is the length of the rock armor to be added? What is the base width of the rock armor?</u>
14	Supp. ER 3.10	The fish return system includes a "buried pipe" and "shoreline outfall" the will return fish to the bay below low tide level. <u>Will installation of any part of the pipe or outfall require trenching in the bay? Will it lay on the bay bottom? How long is the outfall pipe?</u>

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		What is its diameter? Will it be protected with riprap or stone? If so, how much, what type, etc.? Will flow within the pipe be enough to keep it from getting filled with sediment (e.g., during storms)?
15	Supp. ER 5.0	This section presents two methods of evaluating wetlands on site and evaluates the potential impacts to each area. The use of the Ohio Rapid Assessment Method (ORAM) raises some questions. The ORAM was developed by the State of Ohio “to provide a relatively fast and easy method for determining the appropriate category of a particular wetland under the Wetland Antidegradation Rule, OAC Rule 3745-1-54. In order to properly use the ORAM, it is critical to understand the controlling rule language for determining a wetland’s category.” Also, it is noted that the ORAM was adapted from a method used in the State of Washington. Discuss the applicability of a method based on an Ohio Administrative Code wetlands rule to evaluate wetlands in Maryland. Is there any precedent in using ORAM in Maryland or in other mid-Atlantic states? Was it necessary to adapt the method so that it could be used effectively in Maryland? If so, what are these adaptations? Are there any difficulties or caveats in applying the method to Maryland wetland evaluations? The section states that “higher quality wetlands...will not be impacted.” The ORAM method rated three areas as Category 3 wetlands (highest quality assignable by the method); two of those (WA-2, WA-9) are within areas that will be directly impacted. Also, two high-quality wetlands (Assessment Area V, WA-7) are stretches of Johns Creek immediately downstream from areas that will be directly impacted. The losses are quantified in Table 6.1-1. Given this information, clarify the statement that higher quality wetlands will not be impacted. Also, as emphasized in the Wetlands Delineation Report (TetraTech NUS 2007), the divisions between assessment areas are arbitrary and Assessment Areas IV, V, and VI are hydrologically connected. Therefore, it is very important to consider the potential for indirect, downstream impacts to these wetlands areas. This importance is underscored by the OAC rule that guides the ORAM—“Indirect impacts” means effects which are caused by the project that occur farther removed in distance from the project, but are still reasonably foreseeable. Indirect impacts may include related effects on air and water and other natural systems, including ecosystems, and other adverse environmental impacts that may be a consequence of the project.” Provide an assessment that considers the potential downstream impacts of the project, whether direct or indirect, on this highly connected system.