From: "^PNNL NRC Vogtle" <nrc.vogtle@pnl.gov>
To: <VOGTLE_EIS@nrc.gov>
Date: 7/30/2007 1:19:18 PM
Subject: FW: Federal Threatened and Endangered Species in the Vicinity of Vogtle Electric Generating Plant

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From: Krieg, Rebekah
Sent: Thursday, July 26, 2007 8:12 AM
To: Sackschewsky, Michael R
Cc: Miller, Beverly M; Stegen, Amanda; ^PNNL NRC Vogtle
Subject: FW: Federal Threatened and Endangered Species in the Vicinity of Vogtle Electric Generating Plant

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From: Jennifer Price [mailto:PriceJ@dnr.sc.gov]
Sent: Tuesday, July 24, 2007 9:00 AM
To: Krieg, Rebekah
Subject: RE: Federal Threatened and Endangered Species in the Vicinity of Vogtle Electric Generating Plant

Dear Ms. Krieg,

Thank you for the opportunity to comment on the proposed Vogtle Electric Generating Plant project on the Savannah River. As you are aware, the Savannah river contains a high diversity of freshwater mussels including several rare species of state conservation concern. In my opinion this river is one of the most important habitats for many rare species, especially the Savannah lilliput, as I know of no other location where this globally rare species reaches as high a density.

Based upon the information you have provided on this project, I have several concerns relating to the project and its potential impact on mussels. Dredging can have negative impacts on freshwater mussels in several ways. The most direct impact is that the removal of sediment may result in the removal of mussels from the area. Disposal of sediment on land will guarantee that no mussels contained in the sediment removed will survive. It is also possible that heavy machinery used in the river for dredging, construction of the barge slip, or other activities will crush mussels that remain in the river. Dredging may

also increase turbidity downstream and destabilize the sediments in the river channel. The proposed project involves approximately 300 cubic yards of dredged material to be removed in the construction of the barge slip. It is also discussed that additional dredging may need to be conducted to facilitate movement of heavy equipment to the site by barge, and that the amount of material removed cannot be estimated. Because of the strong negative effects of dreding on freshwater mussels and other freshwater organisms, I would like to know if there are alternatives to this plan. Can the equipment be delivered by a truck over land rather than on a barge? Or would it be possible to time the transport of materials by the barge with periods of especially high flows on the river, facilitating transport over the shallow sections? US Army Corps of Engineers is working with conservation groups to restore natural flood pulses to this river, which could provide an opportunity for periods of high flow to be used. When dredging activities are absolutely unavoidable, I would recommend sampling for freshwater mussels in the area of dredging to determine the impact on populations. Although recent data (2006) is available for some sections of the Savannah river (contact Lora Zimmerman at USFWS) mussels are patchily distributed in nature, and the presence of rare species in the exact area of dredging must be known to determine the impacts.

I am a bit concerned about the statement in response to the comment on E4.2-2 Section 4.2.3 Water Quality Impacts Page 4.2-4 of the ER. The SNC response includes the statement "As a practical matter, the bottom material analysis conducted in this area shows the bottom to be largely composed of shifting sands with little habitat value." Although shifting sands are not as good of a substrate for many mussel species as more stable substrates, the mussels of the Savannah River appear to be adapted to this environment. I don't think that the quality of the habitat should be completely written off, because populations of rare mussels have been found in similar substrates on this river.

Regarding contaminants, some data is available for the response of freshwater mussels to envrionmental contaminants. However, their response to many other contaminants is not known. Some studies indicate that mussels may be sensitive to levels of contaminants below those allowed by federal and state laws. A laboratory study monitoring the response of mussels to the liquid effluents or to chemicals that form components of these effluents would be the best way to determine the impacts once the identity of the chemicals to be used are known.

Jennifer Price, Ph.D.
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Created By: nrc.vogtle@pnl.gov

Recipients
<VOGTLE_EIS@nrc.gov>

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Files	**Size**	**Date & Time**
MESSAGE	4661	7/30/2007 1:19:18 PM
TEXT.htm	7433	8/2/2007 8:56:51 AM
Mime.822	14758	8/2/2007 8:56:51 AM

Options
Priority: Standard
Reply Requested: No
Return Notification: None
None

Concealed Subject: No
Security: Standard

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