

December 8, 2005

Mr. C. N. Swenson  
Site Vice President  
Oyster Creek Nuclear Generating Station  
AmerGen Energy Company, LLC  
P.O. Box 388  
Forked River, NJ 08731

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING THE  
ENVIRONMENTAL LICENSE RENEWAL REVIEW FOR THE OYSTER CREEK  
NUCLEAR GENERATING STATION (TAC NO. MC7625)

Dear Mr. Swenson:

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the environmental report submitted by the AmerGen Energy Company, LLC, (AmerGen) in support of its application for license renewal for the Oyster Creek Nuclear Generating Station (OCNGS), and has identified an area where additional information is needed to complete its review. The staff's request for additional information is provided in the enclosure.

Due to the complexity of this request, the staff is providing additional time for the response. We request that you provide AmerGen's responses to the enclosed questions within 90 days of the date of this letter. If you have any questions, please contact me at 301-415-1191 or via email at [MTM2@nrc.gov](mailto:MTM2@nrc.gov).

Sincerely,  
/RA/

Michael Masnik, Senior Project Manager  
Environmental Branch B  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No.: 50-219

Enclosure: As stated

cc w/encl: See next page

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Oyster Creek Nuclear Generating Station  
AmerGen Energy Company, LLC  
P.O. Box 388  
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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) REGARDING THE ENVIRONMENTAL LICENSE RENEWAL REVIEW FOR THE OYSTER CREEK NUCLEAR GENERATING STATION (TAC NO. MC7625)

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DATE	12/08/05	12/07/05	12/8/05	12/8/05

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DISTRIBUTION: Letter to C. N. Swenson Re: RAI Regarding Environmental License Renewal Review for Oyster Creek, Dated: December 8, 2005

Adams accession no.: **ML053430198**

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**Request for Additional Information Regarding the  
Environmental License Renewal Review  
for the Oyster Creek Nuclear Generating Station**

On July 19, 2005, the New Jersey Department of Environmental Protection issued for comment a draft water quality permit for the Oyster Creek Nuclear Generating Station (OCNGS). The draft permit affords AmerGen two options for demonstrating compliance with the Environmental Protection Agency's (EPA) Phase II regulations found at 40 CFR 125.94(a) for the Clean Water Act, Section 316(b).

One option is to reduce intake flow to a level commensurate with the use of a closed-cycle cooling system. The second option is to reduce impingement and entrainment mortality of all life stages of fish and shellfish to the EPA performance standards of 40 CFR 125.94b(1) and (2). The State has also suggested that wetlands restoration is one means to meet the performance standards.

Given the State's discussion of the two options in the draft permit for OCNGS, the NRC staff has determined that it is reasonable to evaluate both options as part of the review of the pending license renewal application. The environmental impacts of the current configuration (the once-through cooling system) will be considered as the proposed action and the second option (a closed-cycle cooling system using either mechanical or natural draft cooling towers) will be considered as an alternative for continued operation during the license renewal period. The assessment of this alternative will be presented in Chapter 8, Alternatives of the Oyster Creek Supplement to the Environmental Impact Statement (SEIS).

The AmerGen Environmental Report (ER), submitted with the July 22, 2005, application for license renewal, as supplemented with information provided at the NRC site audit during the week of October 10, 2005, is adequate for the staff to begin the analysis of the impacts of the current once-through cooling system. However, the ER does not address a closed-cycle cooling system alternative and the associated impacts of construction and operation.

Therefore, the staff requests the following:

- (1) Provide a summary of any studies that evaluate the environmental impacts of closed-cycle cooling for OCNGS. This request includes historical studies that were performed earlier as well as any studies that were conducted specifically in response to the draft New Jersey Pollution Discharge Elimination System permit. If studies are ongoing, then provide a summary of their status and when the results will be available to the staff.
- (2) Provide available information on AmerGen's evaluation of wetlands restoration as a compliance alternative to closed-cycle cooling.
- (3) Provide any assessments of the environmental issues using the issue categories enumerated in Table B-1 of Appendix B to Subpart A of 10 CFR Part 51 for cooling tower systems during normal operation.

- (4) The staff believes that impacts associated with the construction of a closed-cycle cooling system would need to be assessed in Chapter 8 of the Oyster Creek license renewal SEIS along with the impacts of operation. It is quite likely that some or all of the construction would be performed during the renewal period. Provide any assessments of the environmental issues related to the construction of cooling tower systems using the issue categories enumerated in Table B-1 of Appendix B to Subpart A of 10 CFR Part 51 for refurbishment impacts for major components as a guide.

Oyster Creek Nuclear Generating Station

cc:

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Oyster Creek Nuclear Generating Station -2-

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