



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

December 3, 2010

Mr. Peter D. Colosi  
Assistant Regional Administrator  
for Habitat Conservation  
National Marine Fisheries Service  
Northeast Regional Office  
55 Great Republic Drive  
Gloucester, MA 01930-2276

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 AND 3 LICENSE  
RENEWAL: ESSENTIAL FISH HABITAT CONSULTATION, RESPONSE TO  
THE NATIONAL MARINE FISHERIES SERVICE RECOMMENDATIONS (TAC  
NOS. MD5411 AND MD5412)

Dear Mr. Colosi:

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed your comments in response to the essential fish habitat (EFH) assessment and draft Supplement 38 to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 (IP2 and IP3) (draft Supplemental Environmental Impact Statement (SEIS)). In accordance with Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), 16 U.S.C. §1855, we are responding to the National Marine Fisheries Service's (NMFS') Essential Fish Habitat Recommendations in your consultation letter. The recommendations follow:

Implement the best available practicable technology to mitigate impingement, entrainment, and thermal impacts. The BAT for Indian Point would be reconfiguring the facilities by replacing the once-through cooling system with a state-of-the-art, closed cycle design. A closed cycle cooling system would minimize water intake rates and return little to no heated water back into the Hudson River. The reduced water withdrawals and greatly diminished, perhaps even non-existent, plume associated with a closed-cycle cooling system would avoid and minimize what NMFS considers to be highly significant mortalities of aquatic organisms and their attendant impacts to coastal fisheries.

The NRC agrees with NMFS that the effects on fish and shellfish populations at nuclear generating stations with closed-cycle cooling systems are minimal and has presented its analysis and conclusions in its Generic Environmental Impact Statement for License Renewal of Nuclear Plants or GEIS (NRC 1996)<sup>1</sup>. There, the NRC found that the impact levels of entrainment, impingement, and thermal effects at plants with closed-cycle cooling are "small," the lowest of the three designations of impact NRC uses to describe environmental impacts (i.e., small, moderate, and large). The GEIS also finds that the impact levels of these three stressors vary in plants with open-cycle cooling systems according to a host of factors, and the

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<sup>1</sup> U.S. Nuclear Regulatory Commission (NRC). 1996. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*. NUREG-1437, Volumes 1 and 2. Washington, D.C.

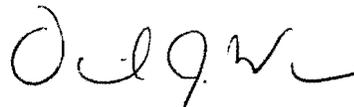
NRC therefore assesses these on a site-specific basis, as the NRC staff did for Indian Point. Beyond the effects on fish and shellfish, decisions on the installation of cooling towers may require consideration of other impacts. For example, other alternatives to closed-cycle cooling may adequately protect Federally managed fish and shellfish populations but adversely affect EFH or other values. NRC discusses cooling towers in Chapter 8 of the SEIS, and discusses other mitigation alternatives, some of which may also adversely affect EFH, in Chapter 4 of the SEIS.

Regarding the identification and implementation of the best technology available (BTA), the U.S. Environmental Protection Agency and its authorized designees, such as the New York State Department of Environmental Conservation (NYSDEC), not NRC, regulate water intakes and discharges under the Clean Water Act. NYSDEC can impose mitigation measures under the New York State Pollutant Discharge Elimination System (SPDES) permit for IP2 and IP3. NYSDEC may require additional mitigation measures such as requiring closed-cycle cooling or other modifications of the cooling system to reduce impacts due to entrainment and impingement.

NYSDEC's decision regarding the SPDES permit requirements for IP2 and IP3 may constitute new information relative to effects on EFH per 50 CFR 600.920(l), which may require NRC to reinitiate the EFH consultation. The NRC encourages NMFS to collaborate with NYSDEC to evaluate the data currently being collected to determine the best way to minimize effects on EFH. As you may know, NYSDEC is presently in the process of reviewing a renewal application for the SPDES permit that addresses the environmental effects of Indian Point's water withdrawal and thermal discharges. NYSDEC's determinations in the SPDES proceeding, including its selection of closed-cycle cooling as the BAT, are subject to state-level adjudication and so are not yet final. The NRC staff will forward your comments and this letter to NYSDEC for its consideration.

Please contact me if you have any questions or comments at 301-415-2292, or by e-mail at [David.Wrona@nrc.gov](mailto:David.Wrona@nrc.gov).

Sincerely,



David J. Wrona, Chief  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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Sincerely,  
 /RA/  
 David J. Wrona, Chief  
 Projects Branch 2  
 Division of License Renewal  
 Office of Nuclear Reactor Regulation

Docket Nos. 50-247 and 50-286

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Letter to Peter D. Colosi from David J. Wrona dated December 3, 2010.

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