

**From:** <Andrew\_Raddant@ios.doi.gov>  
**To:** <FitzpatrickEIS@nrc.gov>  
**Date:** Tue, Aug 28, 2007 5:02 PM  
**Subject:** U.S. Department of the Interior comments on Draft Generic EIS for License Renewal of Nuclear Plants, Supplement 31, James A. FitzPatrick Nuclear Power Plant, New York

Hello:

The comments of the U.S. Department of the Interior on the Draft Generic EIS for License Renewal of Nuclear Plants, Supplement 31, James A. FitzPatrick Nuclear Power Plant, New York, are attached:

Confirmation of your receipt of this correspondence would be greatly appreciated. Email and mailing address are noted below.

Regards,

Andrew Raddant, Regional Environmental Officer  
 U.S. Department of the Interior  
 Office of the Secretary  
 Office of Environmental Policy and Compliance  
 408 Atlantic Avenue., Room 142  
 Boston, MA 02210-3334  
 Phone: 617-223-8565 Fax: 617-223-8569  
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 Gdd = J.M. Muir  
 (JMM7)

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**Creation Date** Tue, Aug 28, 2007 5:02 PM  
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**Created By:** Andrew\_Raddant@ios.doi.gov

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# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
408 Atlantic Avenue – Room 142  
Boston, Massachusetts 02210-3334



August 28, 2007

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Ms. Jessie M. Muir  
NRC Environmental Project Manager  
License Renewal & Environmental Impacts Program  
Div. of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Ms. Muir:

The U.S. Department of the Interior (Department) has reviewed the “Draft Generic Environmental Impact Statement (DGEIS) for License Renewal of Nuclear Power Plants, Supplement 31”, dated June 2007, regarding the relicensing of the James A. FitzPatrick Nuclear Power Plant (NUREG-1437). The Nuclear Regulatory Commission (NRC) has requested comments on the DGEIS which evaluates potential impacts from the relicensing of the James A. FitzPatrick Nuclear Power Plant for an additional 20-year period.

The James A. FitzPatrick Nuclear Power Plant is located in the Town of Scriba, Oswego County, New York, on the shore of Lake Ontario. The power plant consists of a boiling water reactor that employs a once-through cooling system. Water is withdrawn from the lake at an intake structure located 900 feet from the shoreline in 25 feet of water. The intake opening includes a bar rack, with bars placed 1 foot apart. A high frequency fish deterrence system is installed on the intake structure to deter fish, particularly alewives, from entering the intake. The intake velocity at this intake structure is approximately 1.6 feet per second. The plant withdraws approximately 518 million gallons of water per day from Lake Ontario.

## **Federally Listed Threatened and Endangered Species**

The U.S. Fish and Wildlife Service (Service) has reviewed the NRC’s May 2007 Biological Assessment (BA) for the proposed project. Pursuant to Section 7(a)(2) of the ESA, the NRC has determined that the proposed project will have no effect on the Federally-listed endangered Great Lakes breeding population of the piping plover (*Charadrius melodus*), and that the proposed project may affect, but is not likely to adversely affect the Federally-listed threatened bog turtle (*Clemmys muhlenbergii*) or bald eagle (*Haliaeetus leucocephalus*), the Federally-listed endangered Indiana bat (*Myotis sodalis*), or the eastern massasauga (*Sistrurus catenatus catenatus*), a candidate for listing.

The eastern massasauga is not known to occur in the vicinity of the proposed project. The bald eagle was officially delisted on August 8, 2007, removing all ESA requirements for this species. However, the bald eagle continues to receive protection under the Bald and Golden Eagle

Protection Act (BGEPA) (54 Stat. 250, as amended; 16 U.S.C. 668 *et seq.*) and the NRC should follow the Service's May 2007 Bald Eagle Management Guidelines\* to avoid impacts to this species. The Service agrees that the project is unlikely to affect the piping plover or its designated critical habitat. However, the Service cannot concur with NRC's determinations for the bog turtle or Indiana bat at this time due to lack of sufficient information provided in the BA to fully understand the potential impacts. Pursuant to conversations between Ms. Robyn Niver, of this office, and Ms. Jessie Muir, of the NRC, we understand that additional information is forthcoming. As a reminder, until the proposed relicensing is complete, the NRC should check our website every 90 days from the date of this letter to ensure that listed species presence/absence information is current. Please remember that a Federal agency shall make no irreversible or irretrievable commitment of resources that would prevent formulating or implementing any reasonable or prudent alternatives for the action as described in 50 CFR Part 402.14. This prohibition remains until the requirements of Section 7(a)(2) are satisfied.

The following comments of the Department are submitted for project planning purposes under the National Environmental Policy Act. Additional comments may be provided pursuant to, and in accordance with, provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*) in the future, if applicable, as well as other legislation.

### **Fish Entrainment**

The Service considers the entrainment of fish to be one of the most significant adverse environmental effects of this facility. The DGEIS utilizes entrainment data from the adjacent Nine Mile 1 Nuclear Power Plant (Nine Mile 1) as an estimate of entrainment at this facility since the intake and cooling systems are similar (and no entrainment data exists for FitzPatrick). According to the DGEIS, the number of entrained fish eggs and larvae entrained at Nine Mile 1 have varied throughout its operation. The DGEIS cites that in 1976, approximately 350 million alewife (*Alosa pseudoharengus*) eggs, 4.9 million alewife larvae, 1.5 million rainbow smelt (*Osmerus mordax*) eggs, and 205,000 rainbow smelt larvae were entrained per week. A 1997 entrainment study showed lower numbers of entrained fish – approximately 4 to 5 million ichthyoplankton per week over the period of April through August.

The DGEIS characterizes these entrainment losses as “small”, defined as “environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.” We disagree that entrainment losses of at least 4 to 5 million fish larvae and eggs per week are “small” and believe it is inappropriate to draw conclusions about the significance of this mortality by comparing entrained numbers against an estimated standing stock. The DGEIS does not provide information to support its estimate of alewife or rainbow smelt standing stocks in the U.S. waters of Lake Ontario, nor does it explain why the only “important resource attributes” evaluated in making a determination of “small impacts” are fish standing stock numbers within Lake Ontario. It may be equally appropriate to evaluate the impact of FitzPatrick entrainment on other important resource attributes, such as age structure within a given fish species or a specified sub-basin within Lake Ontario or impacts of entrainment on fish community structure.

### **Cumulative Fishery Impacts**

The DGEIS should quantitatively evaluate FitzPatrick entrainment losses within the context of other fishery impacts, particularly since the DGEIS indicates that both alewife and rainbow smelt have declined lake-wide and the status of Lake Ontario's alewife population is of concern. The

cumulative impacts assessment presented in the DGEIS mentions entrainment at adjacent nuclear power plants, nearby oil and gas-fired power plants, and hydroelectric facilities along the Oswego River. We recommend that a more thorough cumulative impact analysis be performed that quantitatively evaluates all significant sources of entrainment within the Lake Ontario basin. This would include addressing entrainment at all Lake Ontario power plants, as well as at hydroelectric facilities on all Lake Ontario tributaries. In that FitzPatrick entrainment losses are expressed in terms of a percentage of the Lake Ontario fish standing stocks, cumulative impacts should be evaluated for all of Lake Ontario.

We note that Nine Mile 1 has an intake flow of 418 million gallons per day, less than the 518 million gallons per day of intake flow at FitzPatrick. We also understand that on-site entrainment data are being collected at FitzPatrick. These data should be used in lieu of the Nine Mile 1 data to better estimate fish entrainment losses and should be provided to the Service for their review.

The Department recommends that the NRC evaluate alternatives to mitigate the entrainment losses at FitzPatrick, including modifying the cooling system from a once through system to a closed cooling system and other potential fish entrainment mitigation methods, including enhancing/restoring spawning habitat for the species most affected by the facility.

#### **Waterfowl Impacts**

The DGEIS indicates that impingement of diving ducks has not been observed at FitzPatrick but has been an issue at Nine Mile Point Nuclear Station. The NRC should clarify the measures, such as monitoring, that are being taken to monitor waterfowl impingement at the intake.

The Department appreciates the opportunity to comment on the DGEIS. We hope these comments are useful during your project review. Please contact Anne L. Secord at the Service's New York Field Office, 607-753-9334, if there are any questions regarding this letter. I may be contacted at 617-223-8565 if further assistance is needed.

Sincerely,



Andrew L. Raddant  
Regional Environmental Officer

cc: NYSDEC, Albany, NY (R. Jacobsen)  
USEPA, NYC, NY (L. Knudsen)  
USFWS, NYFO, Cortland, NY (A. Secord)