

May 7, 2007

MEMORANDUM TO: Rani Franovich, Branch Chief
Environmental Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

FROM: Jessie Muir, Project Manager */RA/*
Environmental Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation

SUBJECT: TRIP REPORT SUMMARIZING MARCH 27, 2007 VISIT TO JAMES A. FITZPATRICK NUCLEAR POWER PLANT REGARDING THE LICENSE RENEWAL ENVIRONMENTAL REVIEW

On March 27, 2007, NRC staff visited the James A. FitzPatrick Nuclear Power Plant (JAFNPP) for a meeting with the licensee (Entergy) and its contractor, Normandeau and Associates, Inc. (Normandeau) to discuss the preliminary results of the aquatic studies conducted in support of a Clean Water Act Section 316(b) Phase II Comprehensive Demonstration Plan (CDP) at JAFNPP in 2006 and 2007. The following people were in attendance at the meeting:

Mike Rodgers	Entergy
Rick Plasse	Entergy
Mark Mattson	Normandeau
Jessie Muir	NRC
Sarah Lopas	NRC

In support of JAFNPP's application for renewal of its New York State Pollution Discharge and Elimination System (SPDES) Permit No. NY 0020109 and as part of their CDP, Entergy contracted Normandeau to conduct aquatic ecology studies of Lake Ontario in the plant vicinity as well as in-plant entrainment sampling. Details of the aquatic study are documented in JAFNPP's *Proposal for Information Collection* dated January 31, 2006 (ML063560153), which was approved by the New York State Department of Environmental Conservation (NYSDEC) in February 2006. Lake Ontario studies were conducted from April through October 2006 to define intake baseline conditions, and consisted of hydroacoustic sampling to determine fish abundance, trawls to determine species composition, and ichthyoplankton tows to determine relative abundance and species composition. All three sampling techniques were conducted in both near-shore and offshore waters. In-plant entrainment sampling was conducted from April 2006 through March 2007 to estimate the seasonal and annual total abundance of fish eggs and larvae that are drawn into the offshore intake and flow into the cooling water intake system.

The purpose of the March 27 meeting was for Entergy and Normandeau to present the preliminary findings of the 2006 316(b) sampling program to the NRC. The NRC had expressed interest in the preliminary results of the studies to determine if the results are consistent with previous studies conducted at the site. Entergy has not yet released the 2006 data to NYSDEC; thus, no data were given to NRC, and this trip report serves to document the NRC's visit to the site and summarize the presentation provided by Normandeau.

A preliminary analysis of the data obtained and analyzed by Normandeau indicates that JAFNPP's offshore intake structure significantly reduces entrainment. The near-shore and offshore hydroacoustic studies also suggest that impingement of fish is reduced by the offshore location of the JAFNPP intake structure, and impingement of alewife (*Alosa pseudoharengus*) is further reduced by the high-frequency fish deterrence system installed on top of the intake structure. As a result of this meeting, the NRC found that the 2006 preliminary data supports previous studies and conclusions about fisheries impacts due to impingement and entrainment at JAFNPP.

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