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

TAKE PRIDE IN AMERICA

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Pao-Tsin Kuo, Program Director
License Renewal & Environmental Impacts Program
Div. of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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RULES AND DIRECTIVES
BRANCH
USNRC

Dear Mr. Kuo:

The Department of the Interior (Department) has reviewed the "Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Power Plants" (NUREG-1437, Supplement 24), dated September 2005, regarding the relicensing of Ninemile Point Nuclear Station, Units 1 and 2. The Nuclear Regulatory Commission (NRC) has requested comments on the GEIS which evaluates potential impacts from the relicensing of the Ninemile Point Power Plants for an additional 20-year period.

This report of the Department is submitted for project planning purposes under the National Environmental Policy Act. Comments pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) were previously submitted in a letter dated November 3, 2004. 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.

GENERAL COMMENTS

Both Ninemile 1 and Ninemile 2 have the potential to entrain and impinge fish and other organisms. For example, during the period of 1973 – 1997, an average of approximately 700,000 fish were impinged annually at Ninemile 1. In 1997, an estimated 86.8 million ichthyoplankton were entrained at Ninemile 1 between April and August. We disagree that these impingement and entrainment losses can be characterized as "small", as concluded in the GEIS. We also disagree with the analysis presented in the GEIS that minimizes the significance of these losses by expressing them as a percentage of the total fish in Lake Ontario. The GEIS indicates that measures in place at Ninemile 1 provide mitigation for impacts related to entrainment and impingement, but the mitigative measures are not presented. We recommend that the Final GEIS present the specific mitigative measures employed, with an analysis of how these measures serve to minimize and compensate for entrainment and impingement losses.

The NRC has determined that entrainment and impingement impacts are "small" for all plants using closed cycle cooling systems (such as Ninemile 2) and do not require site-specific analyses

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for purposes of license renewal. Ninemile 2 has an intake flow of about 77 million gallons per day (based on 53,600 gpm), compared to 418 million gallons per day at Ninemile 1. Although the volume of water is considerably less at Ninemile 2 than Ninemile 1, the water velocity at the intake of Ninemile 2 is 3 feet/second, compared with the 2 feet/second at Ninemile 1. This high water velocity at the intake may contribute to greater entrainment and impingement than may be anticipated with the flows at Ninemile 2. We recommend that data be collected to demonstrate actual entrainment and impingement losses at Ninemile 2, and that measures be taken to mitigate for impacts.

The GEIS indicates in section 4.1.1. that the U.S. Environmental Protection Agency (EPA) published a final rule in 2004 addressing cooling water intake structures at existing power plants whose flow levels exceed a minimum threshold of 50 million gallons per day (Phase II of EPA 316(b) regulations). Therefore, Ninemile 2 may have to comply with these EPA guidelines to further reduce entrainment and impingement. This point should be clarified in the Final GEIS.

There is the potential for heated return water to adversely affect biota at the site of discharge. Heat shock surveys from 1969 – 1974 demonstrated that no aspect of the biotic community was impacted by the heated discharge of Unit 1. Due to changes in the biotic community in the past 30 years, we recommend that additional studies be performed in the vicinity of the heated discharge to support the preliminary conclusion of the GEIS that the potential impacts to fish and shellfish due to heat shock are "small".

A filter boom, such as the Gunderboom System, may prevent fish larvae and eggs from entering the water intake pipes. Fish larvae, eggs, and debris are removed and released downstream of the boom with small bursts of air along the length of the filter. This system is currently being used at three other major power plants in New York and has been determined to be the Best Technology Available, where its use is feasible. It is recommended that this type of technology be considered as a means to reduce fish entrainment and impingement.

SPECIFIC COMMENTS

Page 2-22, Section 2.2.2 Water use, lines 13-22

It may be appropriate to do periodic water-quality analyses of the discharge from the dewatering activity to ensure that pumping of the groundwater does not draw contaminated water from the petroleum contaminant plume. This may not be necessary if the text included technical discussion as to the fate and transport of the petroleum contaminant plume. The discussion should include information about whether the cone of depression has reached equilibrium or is still expanding; and distance from the former vehicle maintenance area to the dewatering pumps. (Figure 2-4 on page 2-6 is too blurry to determine this information).

Page 2-23, Section 2.2.3 Water Quality, lines 30-32

This section describes the sources of water for Lake Ontario, but only describes surface water sources. As much as 42 percent of the water supply for the lake may be groundwater entering by direct and indirect pathways, which has implications for impacts of human activities on the quantity and quality of lake water. Information about the interaction of groundwater and surface water in the Great Lakes can be found on the internet at:
http://mi.water.usgs.gov/splan8/sp08400/intljoint.php

The Department appreciates the opportunity to comment on the GEIS. 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.

Sincerely,

Andrew L. Raddant /s/
Regional Environmental Officer