

October 6, 2006

Mr. John Filipelli
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U.S. Environmental Protection Agency, Region 2
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SUBJECT: FINAL SUPPLEMENT 24 TO THE GENERIC ENVIRONMENTAL IMPACT
STATEMENT FOR LICENSE RENEWAL OF NUCLEAR POWER PLANTS
REGARDING NINE MILE POINT NUCLEAR POWER STATION,
UNITS 1 AND 2

Dear Mr. Filipelli:

This letter provides responses to your comments submitted June 30, 2006, on the final version of "Supplement 24 to the Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Power Plants Regarding Nine Mile Point (NMP) Nuclear Power Station, Units 1 and 2" (SEIS). We appreciate your thorough review of the final supplement and the responses to your comments on the Draft Supplemental Environmental Impact Statement (SEIS). Your continued interest in our assessments and suggestions for improvement are appreciated. Although the U.S. Nuclear Regulatory Commission (NRC) staff has completed its environmental review for license renewal of Nine Mile Point Nuclear Power Station, Units 1 and 2, we believe that it is important to acknowledge your comments, incorporate improvements in our process where possible, and engage with your staff to improve communications on areas involving differing perspectives. Our responses to comments you provided on both the Draft and the Final SEISs related to the NMP license renewal are provided in the enclosure.

In accordance with 40 CFR 1500.4(i), the NRC developed a programmatic environmental impact statement for license renewal (the GEIS) to promote efficiency by eliminating repetitive discussions of issues that are common to all U.S. commercial nuclear power plants. While the supplements are EISs in their own right, they are, in fact, tiered from the GEIS, NUREG-1437, which documents the NRC's extensive review of these common environmental issues. The GEIS also identifies those license renewal environmental issues that must be resolved on a site-specific basis.

The Commission clearly recognized that conditions may change over time or that new information may come to light that could bring into question the conclusions drawn for a generic issue. For those reasons, 10 CFR 51.53(c)(3)(iv) requires an applicant for license renewal to identify in the environmental report any new and significant information regarding the environmental impacts of license renewal of which it is aware. And the public, including government agencies, is invited to provide such information to the NRC as we conduct our independent review. Any new information provided is carefully considered by the staff.

J. Filipelli

-2-

The NRC issued the Final GEIS for license renewal in 1996 after an exhaustive and extensive effort that involved Federal, State, Tribal and local governmental entities, public interest groups and the public. The NRC worked closely with the U.S. Environmental Protection Agency, the Department of Interior, and the Council on Environmental Quality to ensure that the GEIS approach is sound and satisfies our obligations under the National Environmental Policy Act. In conjunction with the issuance of the GEIS, the NRC amended the environmental protection rules of 10 CFR Part 51, which codify the findings of the GEIS and establish the requirements for prospective applicants seeking license renewal. The GEIS is currently being reviewed by the NRC staff, and any updates to the GEIS will result in associated revisions to 10 CFR Part 51, as appropriate.

I believe that further dialogue on the issues that continue to be of concern to your staff would add significant value to our future reviews. I propose that my staff meet with you at your office to develop a mutual understanding of the issues and the roles and responsibilities of our respective organizations in accomplishing our distinct, but complimentary, missions. A member of my staff will be contacting you to set up a meeting. In the meantime, should you have any questions or wish to discuss items of particular interest to you, please contact Ms. Rani Franovich of my staff at (301) 415-1868.

Sincerely,

/RA/

Frank P. Gillespie, Director
Division of License Renewal
Office of Nuclear Reactor Regulations

Docket Nos. 50-220 and 50-410

cc: See next page

J. Filipelli

-2-

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Letter to J. Filipelli, dated October 6, 2006

SUBJECT: FINAL SUPPLEMENT 24 TO THE GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR LICENSE RENEWAL OF NUCLEAR POWER PLANTS REGARDING NINE MILE POINT NUCLEAR POWER STATION, UNITS 1 AND 2

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Response to U.S. Environmental Protection Agency's (EPA's) Comments Provided Regarding
Final Supplement 24 to the Generic Environmental Impact Statement for
License Renewal of Nine Mile Point Nuclear Power Station, Units 1 and 2

Entrainment and Impingement

The U.S. Nuclear Regulatory Commission (NRC) evaluates environmental impacts of the proposed action in accordance with NRC's regulations for implementing the National Environmental Policy Act (NEPA), which are found in 10 CFR Part 51. That evaluation is based on the license renewal application and other available information, as verified by the NRC staff during its environmental review. The NRC staff developed standards for significance based on considerations of "context" and "intensity" as defined in Council on Environmental Quality's regulations (40 CFR 1508.27). NRC staff describes impacts as small, moderate, or large, as defined in Footnote 4 to Table B-1 in 10 CFR Part 51, Subpart A, Appendix B.

While NRC's regulatory jurisdiction is limited to the characterization of impacts in accordance with NEPA, the EPA's regulatory authority regarding aquatic impacts at nuclear power plants is defined by the Federal Water Pollution Control Act. For impacts related to impingement and entrainment, EPA's Section 316(b) Phase II regulations established national performance standards for intake structures. The performance standards (impingement reduction of 80 to 95 percent and entrainment reduction of 60 to 90 percent) are based on what is achievable by the best technology available. However, reduced impingement and entrainment resulting from the implementation of additional intake mitigation measures may not always result in population-level improvements.

Typically, licensees request renewal without proposing any modifications to their intake structure or operation. The staff assesses the impact of continued operation on the aquatic environment based on projecting current impacts into the period of extended operation. We do not assess impacts based on presumed compliance with national performance standards for intake structures that are not yet specified in a National Pollutant Discharge Elimination System permit. We do acknowledge the authority of other agencies to impose requirements that may result in changes to impacts. However, we cannot speculate as to what the specific New York State Pollutant Discharge Elimination System (SPDES) permit requirements might be or what, if any, mitigation measures the licensee may propose to demonstrate compliance. Therefore, the staff analyzes aquatic impacts based on the information available.

With respect to license renewal of Nine Mile Point, we completed the analysis, characterized impacts relating to entrainment and impingement as small, and determined that, since the impacts were small, no further mitigation was warranted. We also stated that EPA has 316(b) Phase II regulations that may result in additional SPDES requirements, such as mitigation or conversion to closed-cycle cooling, and that such activities would reduce the impact.

Biological Studies

Your letter makes reference that our final SEIS states that "conditions in the lake are currently similar to the late 1970s." While we cannot find such a claim in our final SEIS, it is possible that the thermal condition in the lake was the subject of the claim. While studies defining the thermal plume have not been repeated within the last 20 years, plant operating conditions have

Enclosure

not changed significantly; therefore, the extent and distribution of the thermal plume would likely remain the same. The small areal extent of the thermal plume relative to the size of Lake Ontario, the lack of any reported fish kills due to heat shock, and the absence of any data indicating that the existence of sub-lethal effects on residual fish populations in the immediate vicinity of the station led the NRC staff to conclude that the impacts related to the thermal discharge would be small. Additionally, an impingement and entrainment study was conducted within the last ten years, and data from this study indicate that impacts on biota remain small although the lake-wide ecosystem has changed noticeably. With such a dynamic ecosystem as in Lake Ontario and the lack of recent lake-wide data, predicting impacts can be difficult; nevertheless, we have provided conservative estimates of impacts related to impingement and entrainment.

Lake Effects

The greatest proportions of lake-wide stocks of the rainbow smelt (*Osmerus mordax*) and alewife (*Alosa pseudoharengus*) that were lost due to impingement were 0.05 percent in 1985 and just under 0.02 percent in 1984, respectively. Such losses to populations of forage fish do not have ecosystem-wide effects. It is unlikely that current and future losses due to impingement would have any significant effects on lake-wide populations and biomass. Similarly, the lack of observable impacts related to plant thermal discharges also make it highly unlikely that heat shock would have a more significant impact to lake-wide populations now than during the earlier studies.

With respect to your comment on temperature-sensitive species, the issue was analyzed quite extensively in the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS). Section 4.2.2.1.6 of the GEIS documents the conclusions, which were referenced in the Nine Mile Point SEIS. Specifically, the GEIS states, "effects on geographic distribution of aquatic organisms could be reduced by changing to a closed-cycle cooling system or by reducing the plant's generation rate. However, because the effects on geographic distribution of aquatic organisms are considered to be impacts of small significance and because these changes would be costly, the staff does not consider the implementation of these potential mitigation measures to be warranted."

Waste Recycling and Pollution Prevention

Environmental impacts of the uranium fuel cycle are addressed in Section 6.1 of the SEIS; however, the SEIS does not explicitly discuss fuel reprocessing. On Page 6-3 of the SEIS, reference is made to Table S-3 of 10 CFR 51.51(b) titled, "Table of Uranium Fuel Cycle Environmental Data." Table S-3 presents environmental considerations and the data associated with their effects; effects from fuel reprocessing are included in Table S-3. As is explained in Footnote 1 of Table S-3, the NRC considered recycling in the basis for its rulemaking (see the Environmental Survey of Uranium Fuel Cycle, WASH-1238).

Subsequent to the rulemaking, the Nuclear Nonproliferation Act of 1978, Pub. L. No. 95-242 (22 USC 3201 et seq.), was enacted. This Act significantly affected the disposition of spent nuclear fuel by deferring indefinitely the commercial reprocessing and recycling of spent fuel produced in the U.S. commercial nuclear power program. While the ban on the reprocessing of spent fuel was subsequently lifted, economic circumstances changed, reserves of uranium ore remained stable, and the stagnation of the nuclear power industry provided little incentive for

industry to pursue reprocessing. During the 109th Congress, the Energy Policy Act of 2005, Pub. L. No. 109-58 (119 Stat. 594 [2005]), was enacted. While it authorized U.S. Department of Energy (DOE) to conduct a research and development program in advanced fuel recycling technology, it is limited to evaluating proliferation-resistant fuel recycling and transmutation technologies that minimize environmental or public health and safety impacts. Although Federal policy does not prohibit reprocessing, additional DOE efforts would be required before commercial reprocessing and recycling of spent fuel produced in the U.S. commercial nuclear power plants could commence.

Your comments regarding pollution prevention are appreciated and under consideration. We are in the process of updating the GEIS, which provides a timely opportunity to evaluate the potential to include discussion of applicants' pollution prevention programs in our updated GEIS as well as future SEIS publications.

Nine Mile Point Nuclear Station, Units 1 and 2

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