UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 23 2005

10/6/05
70FR58489

RECEIVED
2006 JAN -4 AM 10:09
RULES AND DIRECTIVES BRANCH USNRC

(3)

Chief, Rules Review and Directives Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

Dear Sir or Madam:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Generic Environmental Impact Statement for License Renewal of Nuclear Plant, Supplement 24 (draft SEIS): Nine Mile Point Nuclear Station Units 1 and 2. According to the draft SEIS, the current operating licenses for Nine Mile Point Units 1 and 2 will expire in August 2009 and October 2026, respectively. The proposed Federal action would renew the current operating licenses for an additional 20 years.

This draft SEIS was prepared as a supplement to the Nuclear Regulatory Commission's (NRC) 1996 Final Generic Environmental Impact Statement (DGEIS), which was prepared to streamline the license renewal process on the premise that in general, the environmental impacts from re-licensing nuclear power plants are similar. That GEIS proposed that NRC will develop facility-specific SEIS documents for individual plants as the facilities apply for license renewal. EPA provided comments on the GEIS during the development process in 1992 and 1996.

The Nine Mile Point Nuclear Station is located in Oswego County, New York, on the shoreline of Lake Ontario. Units 1 and 2 are boiling water reactors. The facility's Unit 1 has a power rating of 1850 megawatts of thermal energy and 615 megawatts of electrical power and Unit 2 has a power rating of 3467 megawatts of thermal and 1144 megawatts of electricity. Each unit is refueled on a 24-month cycle. Plant cooling is provided by a once-through circulating water system that draws and discharges to Lake Ontario for Unit 1 and a cooling tower for Unit 2.

Based on the review of the Nine Mile Point Nuclear Station draft SEIS, the EPA has rated the project and document "Environmental Concerns- insufficient information" (EC-2). We have concerns with the impacts due to entrainment and impingement of fish and shellfish, heat shock, and environmental justice. Also, we recommend that the final SEIS address opportunities for pollution prevention and waste recycling.

SISP Review Complete

E-RIDS = ADM-03
Add = L. Fields (LCF)

Template = ADM-013

Entrainment and impingement:

The EPA's new rules under Section 316(b) of the Clean Water Act (in 40 C.F.R. § 125) require Nine Mile Point Nuclear Station to reduce its entrainment of fish and shellfish in early life stages. Although the draft SEIS makes mention of the new rules that are in effect, it does not identify any measures that the facility has taken or will take to mitigate for entrainment and impingement, such as a high-frequency fish deterrent system or fish return troughs. The draft SEIS seems to imply that the main reason for the high rate of entrainment and impingement of fish is the fact that there is an abundance of fish in the water near the intake, rather than the fact that the facility draws in such a great volume of water. If specific location is the problem, then mitigation measures to reduce that abundance near the intakes should be instituted, thereby reducing the entrainment and impingement rates. Of particular concern is the fact that the important forage species, alewife and rainbow smelt, are in decline in the lake overall, and that these are the species found most entrained in the facility's flows. To be in accord with the new 316 (b) regulations, the facility will have to propose mitigation measures to minimize these impacts and we recommend that the final SEIS address which measures the Nine Mile Point station will employ. As such, we recommend the final SEIS not include the following statement: "The staff concludes that the potential impacts of entrainment of fish and shellfish in the early life stages into the cooling water intake system are SMALL, and further mitigation measures are not warranted." This conclusion is premature since mitigation will be deferred to the NYSDEC permit process. NYSDEC will determine what mitigation measures are necessary and need to be reflected in the plant's next discharge permit.

We also recommend that the final SEIS not view entrainment and impingement as mutually exclusive impacts, but instead assess the combined effects of entrainment and impingement, particularly since both impacts substantially affect a discrete number of species.

Heat shock:

The draft SEIS states that the results of biological studies demonstrated that no aspect of the biotic community was influenced or impacted by the heated discharge. However, these studies were done from 1969 to 1974, and at this point are far too old to be relied upon to determine that there continues to be no influence or impact to biota in the lake from the heated discharge. In a related matter, the study of the thermal plume and mixing zone is also too old (1975), to be a reliable determination of current effects and impacts. Also, the draft SEIS does not contain enough information to support these conclusions and should have summarized these results in either tabular or narrative form to allow the reviewers the opportunity to come to the same conclusion. EPA Region II gave direction to NRC for choosing representative important species for the studies. We strongly recommend that new and current studies should be done for these representative species and those results be presented in the final SEIS. The studies should also address the less

conspicuous ability of heat to preclude the use of affected areas by temperature sensitive species, attract and expose organisms to areas of elevated temperature during spawning periods, and expose eggs and larvae to water temperatures far exceeding naturally ambient levels.

The draft SEIS also contains the conclusion that the potential impacts to fish and shellfish are small. As we have stated before, we believe that these kinds of conclusions are premature, particularly in this instance where current studies to determine the significance of the impact need to be done. The final SEIS should refrain from that terminology until that has been proven to be the case.

Environmental Justice:

We are concerned that the Environmental Justice evaluation is too broad and therefore, inadequate to evaluate the impacts to environmental justice communities. The draft SEIS discussed that an examination of minority and low income populations was done for a 50 mile radius around the Nine Mile Point Station. While this is helpful to determine locations of EJ communities, it is too wide an area for an EJ impact evaluation of a specific facility. A more meaningful evaluation would be a thorough examination of the census blocks one to five miles from the facility (for example, Oswego has 8 census blocks that are considered low-income) and then a smaller scale analysis down to the neighborhoods immediately adjacent to the facility. Though the draft SEIS did identify some EJ community census blocks, the document was not specific as to their exact location. Our concern is that typically, low income and minority communities will be living near facilities such as Nine Mile Point, due to the relatively cheaper housing that is often located adjacent to large industrial facilities. Should this turn out to be the case and an EJ community is identified within these narrower bounds, the final SEIS should provide an evaluation on the communities environmental burden and Nine Mile Point's impact to those communities.

Waste recycling:

One of the Department of Energy's (DOE) goals in their 2005 budget is to identify opportunities for recycling spent fuel, and a DOE lab is testing a process to make reprocessing spent fuel more viable. However, the draft SEIS did not address the issue of spent uranium fuel recycling in its discussion of the Uranium Fuel Cycle. Since there has been significant progress in the area of recycling spent uranium fuel from commercial nuclear power plants, we believe that the final SEIS should address this issue and the likelihood that Nine Mile Point may employ some recycling technology in the future.

The draft SEIS was also silent on the issue and options for pollution prevention (P2). The final SEIS should discuss the internal and external processes and the waste streams that would be candidates for pollution prevention technologies. Some P2 opportunities can be as simple as specific landscaping and reduction of herbicides within the facility

grounds, to reduction of sanitary or hazardous (non-radioactive) wastes. We encourage consultation with the DOE's Pollution Prevention office to obtain recommendations that would fit with the processes at Nine Mile Point.

We appreciate the opportunity to comment on the draft SEIS. Upon completion of the final SEIS please send three copies to this office. My staff is available to discuss these comments and provide assistance in responding to these issues. Please feel free to contact David Carlson, at (212) 637-3502 if you have any questions.

Sincerely yours,

Grace Musumeci for

John Filippelli, Chief
Strategic Planning and Multi-Media Programs Branch

Attachment (Rating Sheet)

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommend for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1-Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analysis, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."