Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-40

January 29, 2010

11/20/09
74FR60300
(3)

RECEIVED
2010 FEB 17 AM 9:46
RULES AND DIRECTIVES BRANCH USNRC

Chief, Rulemaking, Directives, and Editing Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington D.C. 20555-0001

RE: Draft Supplemental Environmental Impact Statement – Prairie Island Nuclear Generating Plant, NUREG-1437, Supplement 39.

Dear Chief:

The Minnesota Department of Natural Resources (MDNR) has reviewed the Draft Supplemental EIS (SEIS) for re-licensing of the Prairie Island Nuclear Generating Plant (PINGP). We are providing the following comments for your consideration.

On July 22, 2008, the NRC published notice in the Federal Register on its' intent to conduct scoping. This initiated the 60-day period for public meetings and comments and provided the opportunity to provide issues to be addressed in the Draft SEIS. The MDNR (Matt Langan) provided mailed and electronic copies of our formal comment on September 21, 2008, within the comment period. The three scoping issues we discussed were water level drawdowns, Lake Pepin ice cover, and Xcel Prairie Island communications tower. In reviewing Appendix A. of the Draft SEIS, we note that there is no acknowledgement that the NRC received or reviewed the MDNR letter. We request that this omission be corrected in the Final SEIS, and that our scoping comments receive appropriate review. We have provided a copy of the MDNR scoping comment letter as an attachment.

The MDNR has identified the following environmental impacts related to the present and future operation of PINGP. These are impact issues that were not addressed in the Generic Environmental Impact Statement (GEIS) or that received specific analysis in the SEIS. These are issues for which we have provided comment to the Minnesota Department of Commerce, at several intervals, for the scoping process, EIS, and site permit for the extended power uprate at PINGP. NRC has stated, in section 4.11.1 of the SEIS, that NSP has indicated that they will submit an application for a power uprate in the future. For these reasons, we request that the NRC review our impact issues as new and significant information (Category 2 - Large significance) that relates to the present and future operation of this facility.

Effects of Thermal Discharge to Lake Pepin

A principal concern for the Department of Natural Resources is the effect of the thermal discharge regime on the ice cover conditions of Lake Pepin, and the fact that ice conditions are not regulated by or result from violations of the state water quality standards for temperature. Lake Pepin has historically been an important resource for winter recreation. However, the ice conditions on the upper 6 miles of Lake Pepin have been impaired since 1983 when modification of the NPDES permit allowed discontinuation of cooling tower

SUNSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = E. Keegan (enk)

use during the winter. Our field staff observations, and U.S. Army Corps of Engineers monitoring of ice thickness show that open water conditions are now typical for the upper 2-3 miles and commonly occur for miles 3-5 on the Minnesota side of the lake. This area of the lake is shallower and does not effectively allow for the past projections of a sinking plume of the warmer inflow. Popular fishing destinations downstream of this upper extent of lake, such as major points and bars, have also become hazardous locations where warmer bottom waters are deflected towards the surface.

Lake Pepin ice conditions will be further degraded with the extended power uprate unless a more balanced facility design is implemented. This will require some level of winter cooling tower use to address the 10% increase in thermal loading, and also to address a reasonable fraction of the additional thermal loading that has been characteristic of the discharge since 1983. The PINGP facility was designed, licensed and operated until 1983 as a closed cycle plant with cooling towers. Section 4.11.1 (Cumulative Impacts) and 9.1 (Conclusion-Environmental Impacts) of the SEIS acknowledge that thermal effluent from PINGP 1&2 could in part be responsible for the deterioration of ice cover in Lake Pepin and that increased use of closed cycle operation could be an additional measure to mitigate environmental impacts. We agree, as implementation of closed cycle operation during the winter will have additional benefits by mitigating fish impingement rates, and the potential for cold shock during emergency outages.

Historical data referenced by Xcel, within the Environmental Report, do not represent the environmental conditions of the upper 6 miles of Lake Pepin. Monitoring of ice thickness and water temperature conducted by Northern States Power 1981-86 was conducted downstream from this reach. Xcel recently performed some thermal performance modeling, but modeling was not performed for the period December through March. We have encouraged additional studies and stated that a change in current operating procedures would need to be based on river and lake studies of temperature and ice conditions to determine the amount of cooling necessary. Our concern and comment regarding data adequacy, as expressed during the Minnesota Department of Commerce EIS and Site Permit process for the extended power uprate, has resulted in a requirement for further analysis of thermal impacts to Lake Pepin ice cover. The Minnesota Public Utilities Commission, as a provision of the site permit for the power uprate, has directed Xcel Energy to review past temperature data and studies and to conduct additional studies as necessary. The Commission reserves the right of decision for determining whether the analysis of existing data is sufficient or if a new study is required. There remains much uncertainty with the outcome of the Xcel ice study, and with the lack of state water quality criteria for ice cover we are concerned that the environmental and socioeconomic impacts of present and future thermal discharge will not be mitigated.

As interstate waters, this reach of the upper Mississippi River and Lake Pepin represent highly important large river resources with thousands of users from Minnesota and Wisconsin. With implementation of the Lake Pepin TMDL (nutrients, turbidity), this is an extent of the lake that both MDNR and Wisconsin DNR expect to be restored for aquatic vegetation and greatly improved fish and wildlife values. It is a management

responsibility for both DNRs to provide safe access and winter recreational opportunities for this large extent of the lake. Because of the significant resource values at stake, we request that the NRC License Renewal include requirements for the participation and agreement of all responsible agencies in the scoping and conduct of the Lake Pepin ice studies. We also request a requirement for increased use of closed cycle operation if the studies demonstrate ice impairment and water use conflict with other resource users.

Water Level Drawdowns

The MDNR has had discussions with Xcel Energy regarding a water level drawdown of Navigation Pool 3 to improve habitat for fish and wildlife. We have requested Xcel to provide information on the potential effects of a drawdown on plant operations or other issues they may have. This information has not been fully provided and is critical for continuing planning efforts within the Water Level Management Task Force, a multi-agency state and federal work group charged with making water level management recommendations on the Mississippi River. Drawdowns have been used successfully on other Mississippi River pools, and have great potential for improving the degraded habitats in Pool 3 by consolidating sediments and stimulating growth of submerged and emergent aquatic plants. We note that the NRC has provided discussion concerning the resource benefits and feasibility of this pool drawdown in the Cumulative Impacts section of the SEIS. We appreciate the acknowledgement for this environmental restoration project and encourage any facilitation that NRC and Xcel can provide.

.Xcel Prairie Island Communications Tower

Xcel maintains a 360-foot tower that is centered in the floodplain of the river valley next to PINGP. This geographical location is directly within the Mississippi Flyway that is the corridor for 40 percent of the migrating birds in North America. The lighted tower is a hazard for both migrating and resident birds, as well as being an aesthetic impairment for residents of the river valley and all river user groups. The tower was constructed in 1994, after 20 years of plant operations without a communication tower. Xcel Energy has indicated that the tower is required for the NRC required communications system. However, our staff discussion with Andrew Imboden, Chief of the NRC Environmental Branch indicated that the NRC is not prescriptive for the physical architecture of the communications system. We question whether alternative technology such as a low profile transmitter/receiver with a low profile bluff top repeater could provide the same system reliability. We request that the Final EIS evaluate environmental impacts and alternatives for this structure. The MDNR would see the removal of this obstruction as an important mitigation step for addressing the terrestrial and socioeconomic impacts of the present and future operation of PINGP 1&2.

Dredging

Xcel Energy has recently applied for and received a Work in Public Waters permit for an approximately sixteen acre dredging project in the Mississippi River for maintenance of the PINGP 1&2 emergency water supply. As part of this permit application review it was

determined that the area proposed for dredging contains threatened and endangered mussel species. Xcel Energy has applied to the MDNR for a Special Permit for the Taking of Threatened and Endangered Species. The MDNR is currently discussing mitigation options with Xcel Energy as part of the Special Permit review. The extent of this maintenance dredging and the associated impacts to threatened and endangered mussel species, other mussel species as well as other aquatic organisms affected by the dredging should be included as part of the SEIS.

The Minnesota Department of Natural Resources appreciates the opportunity to provide comments for the license renewal of the Prairie Island facility. We see this process as an important step for assuring the energy security of the region as well as an opportunity for improving the environmental footprint of PINGP over the license period. Please call me at 651/259/5156, or Jack Enblom of our staff at 651/259/5091 if you have any questions regarding these comments.

Sincerely,

Randall Doneen, Planning Director
Environmental Review Unit
Division of Ecological Resources

cc:
Steve Colvin, Environmental Review Unit Supervisor, MDNR
Jack Enblom, Environmental Review Unit, MDNR
Jamie Shrenzel, Environmental Review Unit, MDNR
Scot Johnson, MDNR Lake City
Tim Schlagenhaft, MDNR Lake City
Melissa Doperalski, MDNR Central Region
Nick Schaff, WDNR Eau Claire
Phil Delphey, USFWS Bloomington, MN

Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, MN • 55155-4037

September 21, 2008

Nathan Goodman
U.S. Nuclear Regulatory Commission
Mail Stop O-11F1
Washington, DC 20555-0001

RE: Prairie Island Nuclear Generating Plant Re-licensing and EIS Scope.

Dear Mr. Goodman:

The Minnesota Department of Natural Resources (DNR) has reviewed the materials prepared as part of the Prairie Island Nuclear Generating Plant (PINGP) re-licensing process. We offer the following comments on the Scope of the EIS.

Water Level Drawdowns

The DNR has discussed with Xcel Energy a potential water level drawdown of Pool 3 to improve habitat for fish and wildlife. We have requested Xcel provide information on the potential effects of a drawdown on plant operations, including information needs and potential issues (August 10, 2007 letter to James Holthaus regarding plant re-licensing). This information has not been provided, and is critical for continuing planning efforts within the Water Level Management Task Force, a multi-agency work group charged with making water level management recommendations on the Mississippi River. Drawdowns have been used successfully on other Mississippi River pools, and have great potential to improve the degraded habitats in Pool 3 by consolidating sediments and stimulating growth of submerged and emergent aquatic vegetation. Active participation by Xcel in planning and coordination, as well as meeting our information requests, is needed.

Lake Pepin Ice Cover

Thermal discharge from PINGP results in areas of variable and unpredictable ice cover on the lake. This results in some reductions in accessibility to certain areas of the lake and increases concern for safety overall. Xcel posts advisory signs at public access sites, but users access the lake from numerous other sites as well. Vehicles fall through thin ice, and although infrequent, this remains a serious safety concern where warmer bottom waters are deflected to the surface by underwater obstructions such as points and bars. Providing safe access and use for sport and commercial fisherman, and a variety of other recreational users is an important priority for resource managers.

Xcel Prairie Island Communications Tower

Xcel maintains a 340-foot high tower that is centered in the river valley. This geographical location is directly in the Mississippi Flyway that is the corridor for 40 percent of the migrating birds in North America. The tower poses a hazard to both migrating and resident birds, as well as being an aesthetic impairment for surrounding residents and river user groups. Our discussion with Xcel staff has indicated that the tower is a component of the NRC required communication system, but we question whether advanced technology could replace the tower with a low profile transmitter/receiver coupled with a low profile bluff top repeater station that would provide the same system reliability.

Thank you for the opportunity to provide EIS scoping comments. Please contact me with any questions regarding this letter.

Sincerely,

Matt Langan, Environmental Planner
Environmental Review Unit
Division of Ecological Resources
(651) 259-5115

c: Joe Kurcinka, Tim Schlagenhaft, Wayne Barstad, Jack Enblom