

Minnesota Department of Natural Resources

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February 20, 2009

William Cole Storm
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198

RE: Clarification of Scoping comments for Xcel Energy's Prairie Island Nuclear Generating Plant (PINGP) Up-rate and Dry Cask Storage Project

Mr. Storm:

This letter is provided to clarify and provide supporting data for the Minnesota Department of Natural Resources (DNR) scoping comments relating to PINGP thermal discharge resulting in variable and unpredictable ice cover on Lake Pepin. The basis for suggesting this issue be included in the Environmental Impact Statement (EIS) was generated from observations made by DNR staff, existing studies that indicate a thermal effect on Lake Pepin from PINGP, and the fact that the proposed project would increase that thermal effect. Ice thickness data that has been collected by the DNR since 1995 is enclosed. It is important to note that this data only represents a measurement of ice thickness, not ice thickness as related to PINGP thermal input. However, as we looked closer at existing studies and data it appears that the relationship of PINGP thermal increases to Lake Pepin and ice thickness is appropriate for discussion in the EIS.

DNR resource professionals at Lake City are intimately familiar with the area and operations of PINGP that may affect Lake Pepin. These resource professionals have observed uncharacteristic periods and areas of open water at the upstream end of Lake Pepin. The timing of these observations coincides with the time period that the PINGP stopped using cooling towers in the winter (1983). Although these observations do not constitute data that can be subjected to statistical analysis, they do represent an accurate state of the resource.

H.G. Stephan's September 1987 report *Residual Heat Input from the Mississippi River to Lake Pepin During the Winters of 1981/82 to 1985/86* was commissioned by NSP (Xcel's predecessor). This study found that there is increased thermal input to Lake Pepin as a result of PINGP thermal discharge, and that there was suitable existing data for NSP to evaluate the effect of this thermal increase. Stephan states that detailed analysis of PINGP thermal input on ice cover was beyond the scope of his study, and although ice thicknesses measured on Lake Pepin do not seem to respond to large variations in heat



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input, further analysis is necessary. It is unclear if this additional analysis has ever been completed, and if not it would seem appropriate that it be undertaken as part of a project that will increase the residual heat input into the lake.

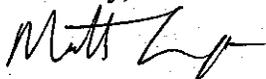
DNR Investigational report 481, *1999 Seasonal Distribution, Habitat Use, And Spawning Locations of Walleye Stizostedion Vitreum and Sauger S. Canadense in Pool 4 of The Upper Mississippi River, With Special Emphasis on Winter Distribution Related to a Thermally Altered Environment* [enclosed] demonstrates a thermal effect of Lake Pepin from PINGP operations. Although the study did not investigate the thermal effect on ice thickness, it does document that anglers have reported an increased frequency poor ice conditions since 1983. These reports also coincide with PINGP discontinuation of cooling tower usage during the winter.

The DNR data on ice thickness from 1995 to the present does not provide a comparison to pre-1983 PINGP operations that had less thermal effect on Lake Pepin. The data does include measurements during one winter that PINGP ceased operations of both reactors and all thermal inputs to Lake Pepin were temporarily discontinued.

Our investigation into the existing studies and data has not identified a conclusion that PINGP operations have resulted in decreased ice thickness on Lake Pepin. Our investigations also have not been able to identify a conclusion that ice thickness on Lake Pepin is not affected by PINGP thermal discharge. Given the consistency of observations, known thermal effect on Lake Pepin, and recommendations from independent researchers for further evaluation, it would seem appropriate that the EIS address this issue. We understand that if the needed data cannot be reasonably obtained, the EIS process is not an appropriate vehicle to collect or require collection of the data. However, if after careful evaluation you determine that the needed data is incomplete or unavailable, we would request that the EIS identify the information that is needed and the types of studies that could be completed to answer the question. This information can then be used by agencies with regulatory authority to develop permit conditions and monitoring requirements.

We hope this information is helpful for developing the EIS. Please contact me at (651) 259-5115 if you have any questions.

Sincerely,



Matthew Langan
Minnesota Department of Natural Resources
Environmental Review Unit