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PRAIRIE RIVERS NETWORK'S COMMENTS OPPOSING PROPOSED PETITION TO MODIFY SPECIFIC THERMAL STANDARD FOR AMEREN ENERGY GENERATING COMPANY'S COFFEEN POWER STATION

Dear Illinois Pollution Control Board:

The Prairie Rivers Network (PRN) hereby submits these comments in opposition to R2009-038: Ameren Energy Generating Company's Petition to modify their specific thermal standard applicable to Ameren's heated effluent discharge to Coffeen Lake from the Coffeen Power Station, located in Montgomery County. Prairie Rivers Network is the state affiliate of National Wildlife Federation, a non-profit organization that strives to protect the rivers, streams and lakes of Illinois and to promote the lasting health and beauty of watershed communities. Much of our work focuses on how policies such as the Clean Water Act and Safe Drinking Water Act are used in Illinois - laws intended to protect our waters, our environment, and, ultimately, our health.

PRN shares the concerns raised by the Illinois Environmental Protection Agency (IEPA), as established in IEPA's recommendation to the Illinois Pollution Control Board to DENY the petitioner's request for a modified thermal standard. PRN opposes the Petition for the following reasons:

A) Petitioners Have Failed to Demonstrate That the Artificial Cooling Lake Receiving the Heated Effluent Will be Environmentally Acceptable and Within the Intent of the Act.

The burden is on the Petitioners to demonstrate that if granted a modified thermal standard, the artificial cooling lake will be considered environmentally acceptable and within the intent of the Illinois Environmental Protection Act *35 Ill. Adm. Code §§ 106.202(b)* Specifically, the demonstration must a) contain provision of conditions capable of supporting shellfish, fish and wildlife, and recreational uses consistent with good management practices; and b) provide control of the thermal component of the dischargers' effluent by a technologically feasible and economically reasonable method. This burden has not been met. As summarized below, the Petitioner has failed to meet the required level

of justification for the proposed modification to the specific thermal limits for the discharge to Coffeen Lake.

1) Petitioner has failed to demonstrate that the proposed modification to the thermal water quality standard to Coffeen Lake will provide conditions capable of supporting shellfish, fish and wildlife, and recreational uses in accordance with 35 Ill. Adm. Code 106.102(b)(1)(A) and 302.211(j)(3)(A).

Constructed in 1963 to provide cooling water for the Coffeen Lake Power Station, Coffeen Lake has been leased since 1986 by the Illinois Department of Natural Resources for recreational purposes and has served as a municipal water supply. For over 20 years, Coffeen Lake has been increasingly known by many, including members of Prairie Rivers Network, as an outstanding recreational site; particularly for fishing as well as boating, picnicking, bird watching and other nature-based activities.

Coffeen Lake technically is a reservoir resulting from the damming of the McDavid Branch of the East Fork of Shoal Creek, two miles south of Coffeen. The Lake has a watershed of 18 square miles, and discharges into the East Fork of Shoal Creek, a general use water body. Coffeen Lake has been identified as not supporting its aesthetic quality use due to excessive levels of total phosphorus, total suspended solids, and excessive algae growth. The completed Total Maximum Daily Load (TMDL) report for Coffeen Lake, approved by USEPA in 2007, concludes that internal loading of phosphorus is a significant contributor to the phosphorus impairment (Report available at http://www.epa.state.il.us/water/tmdl/report-status.html). This finding is significant to this Petition as increased temperature loading to Coffeen Lake is likely to further contribute to the release of phosphorus bound to lake sediments and exacerbate the phosphorus impairment, in violation of the Clean Water Act and the Board's regulations. In the June 23 hearing, Dr. Shortelle, an expert witness appearing on behalf of Ameren, referenced a 2009 addendum to the TMDL completed by Hanson Professional Services for Coffeen Lake, which contrasts IEPA's approved TMDL and concludes that the source of phosphorus loading is external to the lake. This finding and referenced document, not yet made available for peer or Agency review, should not be used to counter the conclusions of IEPA's 2007 USEPA-approved TMDL in this proceeding.

Additionally, Coffeen Lake does not support its fish consumption use due to excessive levels of mercury. Testimony by Dr. Shortelle, again in the June 23 hearing on behalf of Ameren, asserts that the mercury levels in fish from Coffeen Lake is less than mercury levels in fish from other lakes due to the low ratio of the watershed acreage to the lake acreage. While this may be factually correct, this does not address the point of concern which is that increasing temperature loading to Coffeen Lake will likely contribute to an increase in the size of the anoxic zone in the lake, facilitating the methylation or release of

mercury available by aquatic organisms such as fish into the lake. This point must not be taken lightly as it is abundantly clear to the public local to Coffeen Lake, officials from the Illinois Department of Natural Resources and likely employees of the Ameren Coffeen Power Station that subsistence fishing is a common occurrence at Coffeen Lake. Fish consumption is a protected designated use of Coffeen Lake and must be upheld as such.

Furthermore, Coffeen Lake lies within the larger Shoal Creek watershed. The Illinois Department of Natural Resources' (IDNR's) newly-released biological stream ratings show a significant percentage of the state's Biologically Significant Stream reaches lie within the Shoal Creek watershed. (found at http://www.dnr.state.il.us/orc/biostrmratings/images/BiologicalStreamRatingReportSept2008.pdf) These Biologically Significant Streams represent rare, high-quality stream resources. As IDNR states, "Stream segments identified as biologically significant are unique resources in the state and we believe that the biological communities present must by protected at the stream reach, *as well as upstream of the reach."* (p. 23, emphasis added). Discharges from the Coffeen Power Station to its cooling lake known as Coffeen Lake will be tributary to these important stream resources. Deterioration of the existing high quality aquatic community present in the Shoal Creek watershed must be prevented. 35 Ill. Adm. Code § 302.105 (a).

2) Petitioner has failed to demonstrate that alternatives to the proposed modification to the thermal water quality standard of Coffeen Lake are not technically feasible and economically reasonable, in accordance with 35 Ill. Adm. Code 106.102(b)(1)(B) and 302.211(j)(3)(B).

The Petitioners presented four technically feasible options in their Coffeen Cooling System Thermal Study, prepared by their consultant Sargent & Lundy including: operation of the existing system with continued de-rating; construction of a new 175,000 gpm helper tower; construction of a new 130,000 gpm helper tower; and construction of a new 100,000 gpm helper tower. Though the costs of each of these alternatives was presented, the Petitioner did not sufficiently determine the affordability of each of the alternatives. It appears from our review that the $18,000,000 estimated cost of the 175,000 gpm helper tower, estimated to have a payback period of 11.5 years is an economically reasonable option and should be considered for implementation. Certainly it cannot be assumed that $18 million is too much to spend without a far more detailed analysis and a showing that the additional cost would render increased use of the plant economically infeasible.

Additionally, it is not clear why the recommendation in the 2007 Coffeen Lake TMDL report of raising the dam level by 3 feet was not given consideration as an alternative to the proposed modified standard in addressing the thermal discharge problem. It was agreed upon by both IEPA and the Petitioner in the public hearing that this alternative would allow

for decreased concentrations of phosphorus and mercury within the lake, both pollutants that contribute to the lake's impairments.

B) The Illinois Pollution Control Board Cannot Grant a Modified Thermal Water Quality Standard That is Inconsistent With Federal Law

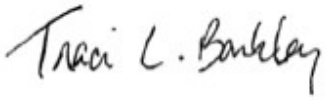
The Petition must demonstrate that the Board may grant the requested relief consistent with federal law governing the subject of the proposal. *35 Ill Adm. Code § 102.210 (e).* Revisions to or adoptions of new water quality standards must be submitted to the Administrator of the United States Environmental Protection Agency (EPA) for review and approval in accordance with the Clean Water Act. *33 U.S.C. § 1313(c), 40 C.F.R. § 131.20(c) (2)* A water quality standard is a legally binding norm that describes the desired ambient condition for a waterbody and includes "the magnitude (e.g. concentration), duration, or frequency that the State would use to determine whether a waterbody is attaining any applicable water quality criteria. *EPA Region 10. "Water Quality Standards: Authorities, Definitions & Considerations."* (January 13, 2009). Clearly, a modified thermal standard is a water quality standard. As such, it must be submitted to EPA for review and approval in accordance with the federal Clean Water Act and its implementing regulations. A new or revised water quality standard has no effect until EPA approves the change. *40 CFR § 131.21(c)*. Should the Board grant this Petition, the change in water quality standards must then be submitted to EPA for its review and approval.

In addition, while the Board is not charged in this proceeding with determining whether the necessary NPDES permits will be granted, the whole point of obtaining a modified standard is to allow Petitioners to obtain the permits and to discharge additional pollutants in accordance with those permits. Because Petitioners will be seeking to discharge additional pollutant loading into Coffeen Lake, the additional thermal loading must comply with the state's antidegradation regulations. *See* 35 Ill Adm. Code *§* 302.105 (requiring a demonstration that existing uses will be fully protected.) *35 Ill Adm.Code § 302.105 (c) (2) (B).* As noted above, however, Petitioners have inadequately demonstrated that the increased thermal loading will protect the existing uses in Coffeen Lake. At this point, Petitioners have not even fully accounted for the existing uses in the receiving waterbody. Both federal law and the Illinois Administrative Code call for a detailed assessment of existing uses and the environmental impact of the requested relief on those uses. The requested relief cannot be granted until Petitioners can show the full extent of those impacts and provide a scientifically supported assurance that those uses will be protected despite the increase in thermal loading. Currently, petitioner has failed to demonstrate that the proposed modification to the specific thermal standard for Coffeen Lake will "assure protection and propagation" of shellfish, fish, and wildlife, in accordance with the CWA and Board regulations. Further, the Petitioner has totally failed to show that allowing the

increased heat loading is necessary to accommodate important social or economic development.

Prairie Rivers Network hereby urges the Illinois Pollution Control Board to DENY Ameren's request as they have not met their burden under Section 28.1(c) of the Act, 35 Ill. Adm. Code 106.200(a), and 35 Ill. Adm. Code 302.211(j)(5).

Sincerely,



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