

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

SOUTHERN ILLINOIS POWER,)	
COOPERATIVE,)	
)	
Petitioner,)	
)	
v.)	PCB 14-129
)	(Thermal Demonstration)
)	
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

NOTICE OF FILING

To: ALL PARTIES ON THE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that on the 17th day of July 2014, on behalf of Southern Illinois Power Cooperative, I filed today with the Office of the Clerk of the Illinois Pollution Control Board a **RESPONSE TO RECOMMENDATION OF THE ILLINOIS ENVIRONMETNAL PROTECTION AGENCY**, copies of which are herewith served upon you.



 Amy Antonioli

Dated: July 17, 2014

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ILLINOIS POLLUTION CONTROL BOARD**

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**RESPONSE TO RECOMMENDATION OF THE ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY**

Southern Illinois Power Cooperative (“SIPC” or “the Company”), by and through its attorneys, Schiff Hardin, LLP, and pursuant to 35 Ill. Adm. Code 106.1145(c) and in response to the Illinois Environmental Protection Agency’s (“IEPA” or the “Agency”) recommendation filed with the Illinois Pollution Control Board (“Board”) on June 26, 2014 (“Recommendation”) regarding SIPC’s Petition for Alternate Thermal Effluent Limitations (“Petition”), submits the following response.

INTRODUCTION

In its Recommendation, IEPA agrees that SIPC has demonstrated that the temperature limits currently applicable to SIPC’s discharges from Marion Station are more stringent than necessary and that the alternate thermal effluent limits SIPC seeks “can assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the Lake of Egypt.” Rec. pp. 9-10. The Agency also agrees that SIPC has satisfied the requirements for seeking alternative thermal relief under Part 106, Subpart K. Rec., p. 10. In

addition, IEPA notes that SIPC met Section 106.1115 for early screening and Section 106.1120 for submitting a detailed plan of study prior to the adoption of Part 106, Subpart K. *Id.* In recommending that the Board grant the relief SIPC requests, IEPA suggests the Board require SIPC to meet three conditions over the subsequent five years, which is the term of the next National Pollutant Discharge Elimination System (“NPDES”) permit cycle. As set forth in more detail below, SIPC agrees to IEPA’s proposed conditions.

SIPC’S RESPONSE TO RECOMMENDATION

1. Condition 1: Studies to Address How Lake of Egypt is An Area of Low Potential Impact for the Five Biotic Categories Other Than Fish.

IEPA notes that a 316(a) demonstration must consider the impacts of the thermal discharges on six biotic categories: phytoplankton, zooplankton and meroplankton, habitat formers, shellfish and macroinvertebrates, fish and other wildlife. IEPA states that SIPC assessed all of the biotic categories other than fish as being in areas of low potential impact, yet provided insufficient justification for this conclusion. Rec. p. 5. Accordingly, IEPA recommends that SIPC either (1) study the other biotic categories over the next five years, or (2) provide additional justification in this proceeding for why these categories are considered areas of low potential impact. Rec. pp. 4-5.

The Draft 1977 Draft 316(a) Technical Guidance (“Technical Guidance”) recommends that the applicant gather existing literature and field data from previous studies and summarize where possible whether the site is one of low potential impact for the various biotic categories. Technical Guidance, p. 14. AMEC, SIPC’s consultant, relied upon prior studies at Lake Sangchris, Newton Lake, and studies by SIUC to determine that Lake of Egypt is a site of low potential impact for the five remaining biotic categories. SIPC and IEPA have discussed this condition and SIPC agrees to perform pilot field surveys to determine whether the site is one of

low potential impact for the five biotic categories other than fish and to determine whether sampling or studies are necessary. See Technical Guidance, p. 18.

2. Condition 2: Modifications to List of Representative Important Species (“RIS”).

In its second proposed condition, IEPA recommends that the Board require SIPC to study two additional RIS categories: (1) thermally sensitive species, and (2) species potentially capable of becoming a localized nuisance. IEPA states SIPC studied only two of the RIS categories listed (see Technical Guidance, pp. 78-79): recreationally important species (largemouth bass, channel catfish, bluegill, white crappie and black crappie) and species necessary in the food chain (threadfin shad and gizzard shad). With respect to the first category, IEPA recognizes that white and black crappie may be considered “thermally sensitive” but recommend that SIPC’s future studies investigate the thermal sensitivity of these species, not just their presence as a sportfish. Rec. pp. 5-6. SIPC and IEPA have discussed this condition and SIPC agrees to study white and black crappie populations during the next NPDES permit period. Moreover, SIPC agrees that such studies should focus on the species’ thermal sensitivity as discussed in more detail below.

With respect to the second category, IEPA states SIPC has not selected a nuisance species as an RIS and, therefore, provides no assurance that increased thermal loadings will not lead to an increase in nuisance species populations. Rec., p. 6. IEPA suggests replacing one of the RIS that is a recreationally important species, such as channel catfish, with a nuisance species such as the common carp or the rusty crayfish. Notably, the observed catch rates of carp are similar to those of crappie, ranging variably from 0 to 4.0 since 1997. SIPC does not object to IEPA’s suggestion to replace the channel catfish with a nuisance species and suggests that carp be selected as the potential nuisance species. According to AMEC, selection of carp would

allow for consistent use of sampling gear from prior study years to allow for more effective temporal comparison in changes in abundance within Lake of Egypt.

3. Condition 3: Habitat and Population Studies.

IEPA's third recommended condition is a requirement that SIPC further study the impact of thermal loadings on white and black crappies within Lake of Egypt. The Agency recommends that SIPC conduct age and growth studies on both species. The Agency also recommends that crappie studies include data on dissolved oxygen ("DO") and lake temperatures. Rec. p. 9.

The Agency recommends that these studies could be conducted as semi-weekly or weekly temperature and DO monitoring during summer months at the two locations used in the SIUC study plus a location at the upper end of the lake. Alternatively, IEPA recommends SIPC could conduct a telemetry study (using temperature-sensitive sonic transmitters) to track seasonal movements of crappie populations.

SIPC agrees to conduct appropriate future age and growth studies on certain fish species in Lake of Egypt. However, SIPC would like the opportunity to further discuss the details of such study with IEPA before agreeing to a specific plan that is incorporated into any relief the Board may grant. SIPC notes that the data collected for crappie populations should not be interpreted as conclusive that there have been any significant population changes after 2003. IEPA expresses concern that catch rates decreased from pre-2003 (2.5-4.8 fish/hr) to post-2003 (0-1.3 fish/hr). AMEC notes that both of these units are very small and not discernably different when compared to larger catch rates for more dominant species. For example, bluegill catch rates ranged from 93.0 to 131.1 prior to 2003 and from 56.0 to 141.4 after 2003, which reflects a natural range to catch rates among sample years. This narrow range of crappie catch rates is not a sufficient basis to conclude that crappie populations suggest a shift of abundance.

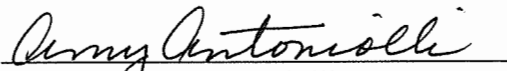
This is one reason AMEC did not initially select black and white crappies as RIS, but did so after IEPA suggested including a thermally sensitive species as an RIS. SIPC agrees that habitat and population studies will provide additional valuable information about populations of aquatic species in Lake of Egypt, but seeks the opportunity to further discuss the most appropriate species and study details before agreeing to a specific plan.

CONCLUSION

SIPC respectfully requests that the Illinois Pollution Control Board find SIPC has made the requisite showing and grant this Petition for an Alternate Thermal Limitation, subject to the following three conditions. First, SIPC agrees to conduct pilot surveys of the five biotic categories other than fish to determine whether Lake of Egypt is a site of low potential impact for those categories. Second, SIPC agrees to replace one species of RIS with another species recommended by IEPA for future studies. Third, SIPC agrees to conduct habitat and population studies during the next five-year NPDES permit cycle on at least one of the RIS species.

Respectfully submitted,

**SOUTHERN ILLINOIS POWER
COOPERATIVE**

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CERTIFICATE OF SERVICE


I, the undersigned, certify that on this 17th day of July, 2014, I have electronically served the attached **Certification of Publication**, upon the following persons:

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