

AmerGen

An Exelon/British Energy Company

Clinton Power Station

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RS-01-277

November 29, 2001

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Additional Environmental Information Supporting the License Amendment
Request to Permit Uprated Power Operation at Clinton Power Station

Reference: Letter from J. M. Heffley (AmerGen Energy Company, LLC) to U.S. NRC,
"Request for License Amendment for Extended Power Uprate Operation," dated
June 18, 2001

In the referenced letter, AmerGen Energy Company (AmerGen), LLC submitted a request for changes to the Facility Operating License No. NPF-62 and Appendix A to the Facility Operating License, Technical Specifications (TS), for Clinton Power Station (CPS) to allow operation at an uprated power level. The proposed changes in the referenced letter would allow CPS to operate at a power level of 3473 megawatts thermal (MWt). This represents an increase of approximately 20 percent rated core thermal power over the current 100 percent power level of 2894 MWt. The NRC, in a conference call, requested additional information on the status of the pathogenic *Naegleria fowleri* monitoring program at Clinton Lake. The implementation of this monitoring program was a commitment in the Final Environmental Statement. In addition, the NRC requested information on the impact of power uprate on the potential for occurrence of these organisms in Clinton Lake and the subsequent need for continuing a monitoring program following power uprate. The attachment to this letter provides the requested information.

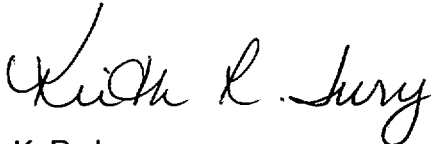
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Rec'd 01/18/02

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Should you have any questions related to this information, please contact Mr. Timothy A. Byam at (630) 657-2804.

Respectfully,

A handwritten signature in black ink, appearing to read "K. R. Jury". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

K. R. Jury
Director – Licensing
Mid-West Regional Operating Group

Attachments:

Affidavit

Attachment: Additional Environmental Information Supporting the License Amendment
Request to Permit Upgraded Power Operation at Clinton Power Station

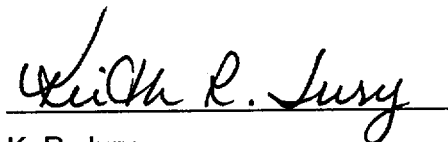
cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Clinton Power Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS)
COUNTY OF DUPAGE)
IN THE MATTER OF)
AMERGEN ENERGY COMPANY, LLC) Docket Number
CLINTON POWER STATION, UNIT 1) 50-461

**SUBJECT: Additional Environmental Information Supporting the License
Amendment Request to Permit Up-rated Power Operation at Clinton
Power Station**

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my
knowledge, information and belief.

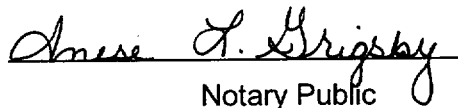


K. R. Jury
Director – Licensing
Mid-West Regional Operating Group

Subscribed and sworn to before me, a Notary Public in and

for the State above named, this 29 day of

November, 2001.


Notary Public



ATTACHMENT

Additional Environmental Information Supporting the License Amendment Request to Permit Upgraded Power Operation at Clinton Power Station

Review of Clinton Power Station's *Naegleria fowleri* Monitoring Program Relative to a Power Uprate

During the final regulatory review of the Final Environmental Impact Statement (FEIS) in 1982, concerns were raised that the elevated temperatures in Clinton Lake due to plant operation might increase the abundance of pathogenic *Naegleria fowleri* and constitute a risk for primary contact water sports. *Naegleria fowleri* is the organism that causes a nearly always-fatal disease known as Primary Amoebic Meningoencephalitis (PAM). Initially, the Illinois Department of Public Health (IDPH) responded to concerns raised by the Illinois Department of Natural Resources (IDNR) and asked for a two-year pre- and post-operational monitoring program for *Naegleria fowleri* and proposed a ban on primary water contact water sports once the plant went operational. After further review of the initial monitoring studies and projected lake temperatures, and a specially funded medical school review of the risks, the IDPH issued a letter in 1987 stating that there was no reason to restrict primary contact water sports. The IDPH, however, requested additional *Naegleria fowleri* monitoring and lake temperature data collection by CPS. The monitoring program continued through 1990, when it was concluded that no further information was needed and that the risk of *Naegleria fowleri* from Clinton Lake was insignificant relative to other public health risks.

The summary of the monitoring program results listed below illustrates two critical findings. The first was *Naegleria fowleri* did exist in Clinton Lake prior to any thermal additions, and second, as expected, it was detected more frequently after thermal additions. However, even during the operational years, the frequency of *Naegleria fowleri* in Clinton Lake was much lower than that found in ambient temperature lakes in Florida. *Naegleria fowleri* is common in most fresh water lakes in Florida.

CPS <i>Naegleria fowleri</i> Monitoring Program Summary				
year	Researcher	CPS Status	Total # of samples	Positive for <i>Naegleria fowleri</i>
1983	Dr Tyndall (Oak Ridge Nat. Labs)	Pre-operational	82	0
1984	Dr Tyndall (Oak Ridge Nat. Labs)	Pre-operational	120	0
1986	Dr. Wellings & Dr. Lewis (Fla. D.H&RS)	Pre-operational	219	1
1987	Dr. Wellings & Dr. Lewis (Fla. D.H&RS)	Start-up	103	0
1986	Dr. Huizinga (IL State University)	Pre-operational	123	1
1987	Dr. Huizinga (IL State University)	Start-up	148	2
1988	Dr. Huizinga (IL State University)	Operational	400	21
1989	Dr. Huizinga (IL State University)	Operational	176	9
1990	Dr. Huizinga (IL State University)	Operational	400	15

ATTACHMENT

Additional Environmental Information Supporting the License Amendment Request to Permit Upgraded Power Operation at Clinton Power Station

An increase in abundance of *Naegleria fowleri* does not directly correlate with an increase in the number of cases of PAM caused by this pathogen. As of 1988, there had only been about 54 documented cases of PAM in the entire country. Most of these cases were in Florida and a small isolated region of Virginia. The only case associated with a cooling lake was in Texas, and the victim contracted PAM from a non-heated portion of the lake.

Efforts were made to keep the IDPH informed of the *Naegleria fowleri* monitoring results and operational changes that impacted lake temperatures. Each year the IDPH was given the *Naegleria fowleri* monitoring data and temperature data from continuous recorders at key locations in Clinton Lake. When Illinois Power filed a petition in 1988 for a Site-Specific Adjusted Standard for higher thermal discharge limits, the IDPH was given a presentation on the modeled lake temperatures that would result from this Site-Specific Standard. The Site-Specific Standard was granted in 1992 and permitted the maximum daily average temperature to be raised from 99°F to 110.7°F. The station NPDES permit currently has two temperature limitations. The temperature of discharge water at the second drop structure in the discharge flume is limited to a maximum daily average temperature of 99°F for 90 days in a calendar year, or 110.7°F for any single day. The permit and these limits will not be changed for EPU, therefore the reviewed and approved heat load for Clinton Lake will not be changed.

The original monitoring program and subsequent decisions to stop monitoring and permit unrestricted recreational lake use were based on compliance with the NPDES permit and the very small risk this issue presented. Based on the above discussion, no use restrictions or additional monitoring is necessary due to power uprate operation.