

Exelon Generation Company, LLC  
LaSalle County Station  
2601 North 21<sup>st</sup> Road  
Marseilles, IL 61341-9757

www.exeloncorp.com

RA05-61

Facility Operating License -Appendix B

July 28, 2005

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Environmental Non-Routine Event Report - LaSalle County Station

In accordance with the 30-day notification requirements of Facility Operating Licenses NPF-11 and NPF-18, Appendix B, Environmental Protection Plan, Sections 4.1 and 5.4.2, LaSalle County Station is submitting this Environmental Non-Routine Event Report on a fish kill that occurred on the LaSalle Cooling Lake.

#### Event Description

On June 28, 2005 at 1245 CST, a fish kill above normal mortality was identified on the station cooling lake. The initial estimate was reported as approximately 300 fish, mostly Striped Bass hybrids. The Illinois Department of Natural Resources (IDNR) was notified and an ENS notification was made pursuant to 10 CFR 50.72 (b)(2)(xi). The IDNR District Biologist arrived onsite and began an official fish count. The final count was 1515 dead fish, distributed amongst the various species as follows:

<u>Species</u>	<u>Number</u>	<u>Species</u>	<u>Number</u>
Striped Bass hybrids	1,439	Smallmouth Bass	36
Walleye	20	Channel Catfish	11
Blue Catfish	4	Yellow Bass	3
Sauger	2		

#### Analysis and Evaluation

During the period of June 27-28, 2005, Units 1 and 2 were operating at full power. Six circulating water pumps provided lake circulation (approximately 1.2 million gallons per minute). Two lake makeup pumps (approximately 60,000 gallons per minute) provided makeup from the Illinois River with blowdown return to the Illinois River operating at approximately 32,500 gallons per minute.

June 27<sup>th</sup> was the fifth day in a row with air temperatures peaking above 90°F. The circulating water inlet temperature peaked above 95°F on the evening of June 27, reaching a maximum of 95.07°F. This temperature peak was above the upper lethal temperature for most of the fish species listed above.

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The cooling lake is classified as a treatment facility for the dissipation of waste heat per the station's NPDES Permit No. IL0048151 issued by the Illinois Environmental Protection Agency. In accordance with the permit, no state or federal water quality standards are applicable to the lake itself. Effluent, thermal and chemical standards are applied to the lake blowdown effluents to the Illinois River. None of these standards were violated during this period.

Probable Cause of Event

The apparent cause was that a combination of high air temperatures, low wind speeds, and high dew points, caused Cooling Lake temperatures to rise above 95°F, which is the threshold at which species susceptible to increased temperatures begin to perish. A contributing cause was that the last two summers were relatively cool, which allowed cool water species and weaker fish to proliferate in the lake. When the thermal transient occurred, many of the cool water species and weaker fish succumbed to the heat distress.

Corrective Actions

Dead fish were cleared from the public Recreation Area boat launches and Shad Net areas. Inspections showed no dead fish were present in the Lake Screen House travelling screens. Inspection of the blowdown canal to the Illinois River revealed no problems with dead fish or nuisance odors being discharged.

Actions to Prevent Recurrence

There are no actions to prevent recurrence. These events are expected to periodically occur and are accounted for in the LaSalle Extreme Heat Implementation Plan.

Agencies Notified and Preliminary Responses

The Illinois Department of Natural Resources was notified of the fish kill. Their preliminary response was to perform a fish count to determine the extent of the kill and the species affected.

If there are any questions or comments concerning this letter, please refer them to Terrence W. Simpkin, Regulatory Assurance Manager, at (815) 357- 2800.

Respectfully,



Daniel Enright  
Plant Manager  
LaSalle County Station

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - LaSalle County Station