

RA10-068

Facility Operating License -Appendix B

August 25, 2010

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 loss that occurred on the LaSalle Cooling Lake.

#### Event Description

On August 13, 2010 at 1056 CST, a fish loss above normal mortality was identified on the station cooling lake. 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 characterized the fish mortality as follows: "Over 90 percent of the dead fish were small threadfin and gizzard shad. All the shad were less than three inches. There were also some carp, a few striped bass hybrids and a couple walleye and smallmouth bass. The fish kill should have very little impact on the fish dynamics in the lake."

#### Analysis and Evaluation

On August 12, 2010, 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 28,000 gallons per minute.

Lake temperature peaked at 101.3 dF August 12. Temperatures dropped but remained above 98 dF when the fish loss was confirmed on August 13. The high cooling lake temperature is attributed to high air temperatures, low wind speed, and high dew point temperatures and is believed to have provoked the fish loss.

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 led to a high cooling lake temperature of 101.3 dF. When the thermal transient occurred, some cool water species and weaker fish succumbed to the heat distress.

Corrective Actions

The public recreation area boat launches, shad net areas, and the Lake Screen House traveling screens were cleared of the fish. Inspection of the blowdown canal to the Illinois River revealed no problems with 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 loss. Their preliminary response was to assess the mortality based on interviews with fish hatchery personnel and commercial divers responsible for maintaining the station's shad nets.

If there are any questions or comments concerning this letter, please refer them to Terrence W. Simpkin, Regulatory Assurance Manager, at (815) 415-2800.

Respectfully,



Peter J. Karaba  
Plant Manager  
LaSalle County Station

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