

Facility Operating License - Appendix B

August 27, 2009
BW090083

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

Braidwood Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. 50-456 and 50-457

Subject: Environmental Non-Routine Event Report - Braidwood Station

In accordance with the requirements of Facility Operating Licenses NPF-72 and NPF-77 Appendix B, Environmental Protection Plan, Sections 4.1 and 5.4.2, Braidwood Station is submitting this Environmental Non-Routine Event Report on a fish loss that occurred on the cooling lake. The 30-day deadline for the Environmental Non-Routine Event Report was missed and the submission of this letter was made as timely as possible. The missed deadline was entered into the corrective action program.

Event Description

On June 24, 2009 at 1639 CT, 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). Although an official fish count was not performed due to IDNR resource availability, the station estimated mortality to include a few thousand Gizzard Shad, which are a foraging species, as well as, a minimal amount of game fish.

Analysis and Evaluation

During the period of June 20-24, 2009, Units 1 and 2 were operating at full power. Circulating water pumps provided lake circulation at approximately 1.4 million gallons per minute. No lake makeup pumps were running at this time to provide makeup from the Kankakee River with blowdown return to the Kankakee River operating at approximately 13,000 gallons per minute.

Lake temperature increased thirteen (13) degrees Fahrenheit from 84°F on June 20, 2009 to 97°F on June 24, 2009. The fairly rapid increase is attributed to high air temperatures, low wind speed, and high dew point temperatures and is believed to have initiated the fish loss.

In accordance with the station's NPDES Permit No. IL0048321, issued by the Illinois Environmental Protection Agency, 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 Kankakee 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 an atypical rapid increase in Cooling Lake temperature. (84 F to 97 F over 4 days). 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 and adjacent shorelines were cleared of the fish. Inspection of the blowdown canal to the Kankakee River revealed no problems with dead fish or nuisance odors being discharged.

Actions to Prevent Recurrence

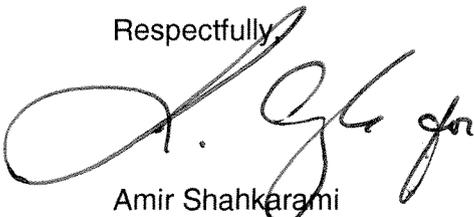
There are no actions to prevent recurrence. These events are expected to periodically occur and are accounted for in the Braidwood Extreme Heat Implementation Plan.

Agencies Notified and Preliminary Responses

The Illinois Department of Natural Resources was notified of the fish loss. Outside of their routine lake observations, the IDNR was unable to determine extent of fish loss due to resource availability. The station's observations were communicated and accepted without comment.

If there are any questions or comments concerning this letter, please refer them to Mr. David Gullott, Regulatory Assurance Manager, at (815) 417- 2800.

Respectfully



Amir Shahkarami
Site Vice President
Braidwood Station

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