Indian Point 3
Nuclear Power Plant
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New York Power Authority

Robert J. Barrett
Site Executive Officer

November 25, 1997
IPN-97-162

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

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Nonroutine Report for Unusual Environmental Event
Regarding the Plant River Water Discharge Canal

Dear Sir:

This letter provides a written report required by the Indian Point 3 Nuclear Power Plant Environmental Technical Specification (ETS), Part I, Non-Radiological Environmental Protection Plan, Section 5.4.2, Nonroutine Reports. As required by ETS Section 4.1, Unusual or Important Environmental Events, on October 30, 1997, the New York Power Authority reported discovering an unusual fish kill in the plant river water discharge canal. The attached report is the required 30 day followup written report for that event.

The Authority is making no new commitments in this report. If you have any questions about this matter, please call Mr. D. Mayer at (914) 736-8401.

Very truly yours,

Robert J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant

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cc: See next page

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cc: Mr. Hubert J. Miller
Regional Administrator
Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

30 Day Nonroutine Report

Event Description

On October 29, 1997, at approximately 1400 hours, operators discovered approximately forty (40) dead fish averaging approximately one (1) foot in length floating in the plant river water discharge canal. The event was recorded as a Deviation Event Report (DER) and reported to the NRC within 24 hours as required by Environmental Technical Specification (ETS) 4.1. An investigation of the event was initiated at approximately 1730 hours, by the Authority's fisheries biologist. The fish species identified were carp (Cyprinius Carpio) and gizzard shad (Dorosoma Cepedianum), neither of which is an endangered species. At the time of the event, reactor power was 100 percent, and Reactor Coolant System (RCS) temperature and pressure were approximately 567 degrees F, and 2235 psig.

The dead fish were located in the plant river water discharge canal, which contains river water used to cool plant equipment at both Indian Point units 2 and 3. Waste heat from Indian Point units 2 and 3 is dissipated by once through cooling with water drawn from the Hudson River. River water is directed through screens that would prevent fish intrusion. Water that passes through the screens is treated by Indian Point 3 with a biocide (sodium hypochlorite), which is added to prevent excessive biofouling. After passing through plant equipment, the cooling water is returned to the river via the Discharge Canal outfall structure. The Discharge Canal outfall structure is common to both units, and contains twelve submerged discharge ports that disperse the heated water into the river. Ten of the twelve discharge ports have motor operated gates that control the height of the water in the outfall structure, thereby controlling the velocity of the water leaving the discharge canal.

Chemistry and performance data/activities were reviewed for the period of October 22 through October 30, 1997. Chemical usage and discharges were reviewed for releases of potentially harmful chemicals, and none were identified. There were no chemical discharges above allowable limits, and no loss of chemicals which could impact the discharge canal. Review of thermal data for the common discharge water determined that the discharge water temperature did not vary by more than 7 degrees. On October 27, 1997, thermal data indicated a rise in temperature of approximately 6.6 degrees F over a period of eight hours, followed by a drop in temperature of approximately 5.6 degrees F over a period of six hours. A similar rise and fall of 5.7 degrees F occurred over a thirteen hour period on October 28, 1997. There were no plant events or occurrences that appear to be causally related to the fish kill. This event had no significant environmental impact.

30 Day Nonroutine Report

Probable Cause of Event

The probable cause of the event could not be determined, but does not appear to be due to a transient in plant operation. The Authority concluded the most likely cause was that the fish swam into the discharge canal through the discharge ports, whose gates were open, earlier in the year when both plants were shut down for refueling. During that period, there was minimal water flow through the discharge ports. Apparently, the fish did not leave the discharge canal when the plants started, although they could have. This event may have been a natural mortality, caused by seasonal scarcity of food in the canal, local temperature changes, and changes in ambient salinity levels.

Corrective Actions

The Authority performed an investigation of the event and plant operations to identify conditions or incidents that could be the probable cause for this event. No conditions or incidents were identified. The event is considered an isolated occurrence and not a result of plant activities. Therefore, no corrective actions were identified to preclude repetition and prevent similar occurrences.

Agencies Notified and Their Preliminary Response

The event was reported to the NRC by telephone within twenty four hours in accordance with Environmental Technical Specification (ETS), Section 4.1. The report was made at approximately 1314 hours, on October 30, 1997 (ENS Log No. 33191). No other state or federal agency was notified.