

Annual Environmental Operating Report

A. Listing of Environmental Protection Plan (EPP) noncompliances and corrective actions:

1) Noncompliance      On February 4 and 7, 1987, samples for discharges from the Water Treatment Waste Outfall (003a) were not obtained due to discharge equipment failing shortly after the discharges were started and before samples could be obtained.

Corrective Action      The discharge equipment was repaired and returned to service. Several discharges occurred later in the month to verify equipment operability.

2) Noncompliance      On March 20, 1987, sample results of a discharge from the Water Treatment Waste Outfall (003a) indicated that the water being discharged had a pH of 5.9. This was due to an improper setting on the pH adjustment equipment.

Corrective Action      The equipment was adjusted and the discharge recommenced within the limits.

3) Noncompliance      During the month of March 1987, only one sample (two required) was obtained from the Equipment Building/Collection Basin (outfall 008). The pond was drained before the second sample was collected.

Corrective Action      A communication error resulted in draining the pond before the next routine grab sample date. The communication error has been discussed with the responsible personnel.

4) Noncompliance      The monthly samples obtained from outfall 008, Equipment Building and Area Runoff Collection Basis Effluent, indicated that the Total Suspended Solids levels were 39 ppm on May 4, 1987 and 49 ppm on May 19, 1987.

Corrective Action      The results were caused by heavy rains preceding the scheduled sample periods. The pond was checked for excessive erosion and none was found. No additional corrective action was required.

- 5) Noncompliance The fecal coliform level for the sewage treatment plant (outfall 002a) effluent was 500 colonies/100 ml on July 9, 1987.
- Corrective Action The plant operating characteristics were reviewed, and it was determined that the plant was operating within specifications. No reason for the elevated fecal coliform level could be determined. Subsequent samples indicated that the fecal coliform levels were within permit limits. No further corrective actions were required.
- 6) Noncompliance On July 22, 1987, a sample obtained from the sewage treatment plant discharge (outfall 002a) indicated a pH of 9.2. A subsequent sample taken to verify the condition indicated a pH of 9.3.
- Corrective Action Operational adjustments to the plant were made and the discharge corrected.
- 7) Noncompliance On July 31, 1987, the fecal coliform level in the sewage treatment plant discharge (outfall 002a) was 1400 colonies/100 ml. This was due to the chlorination system malfunction.
- Corrective Action The chlorination system was repaired and returned to service. The fecal coliform level decreased to 0 colonies/100 ml.
- 8) Noncompliance The volume and pH of the discharge from the water treatment waste treatment pond (outfall 003a) on August 9, 1987 were not determined.
- Corrective Action The sampling requirements of this outfall were reiterated to the technicians taking the samples.
- 9) Noncompliance On August 2 and 3, 1987, samples from outfall 008 indicated a pH of 9.2.
- Corrective Action A subsequent sample on August 4, 1987, yielded a pH of 8.7. The previous noncomplying samples were believed to be an isolated occurrence potentially resulting from excessive rain washing agricultural residue into the outfall. No other corrective actions were taken.

- 10) Noncompliance A sample taken for Total Suspended Solids (TSS) from the water treatment waste treatment pond (outfall 003a) on June 9, 1987, was not delivered to the Central Laboratory until June 24, 1987. TSS samples may be stored for a maximum of up to seven days.
- Corrective Action The storage requirements of this and all National Pollutant Discharge Elimination System (NPDES) samples were discussed with the applicable personnel.
- 11) Noncompliance A sample taken on August 16, 1987 of the radwaste treatment system effluent (outfall 002b) yielded an oil and grease value of 28.5 ppm.
- Corrective Action A second sample taken a short time later was within permit limits so the first sample was thought to be a non-representative sample. No further corrective action was taken.
- 12) Noncompliance On September 30, 1987, a fecal coliform sample from outfall 002a was 480 colonies/100 ml.
- Corrective Action Adjustments were made to the chlorination system and a subsequent sample for fecal coliform indicated that the level was within the permit values. On further review of the incident, it was decided to change the chlorine injection to a continuous feed mode, and the sewage plant personnel were counseled to be more attentive to sewage plant conditions.
- 13) Noncompliance A sample taken on September 17, 1987 from Outfall 008 was found to contain 70 mg/l oil and grease.
- Corrective Action Discussions with site maintenance personnel indicated no unusual activities were performed or events occurred in the associated areas which could account for the sample values. A tour of the areas also did not reveal any indications of previous oil contamination in the collection areas or on vegetation, or the potential for any oil contamination. Subsequent analyses for oil and grease on Outfall 008 yielded 2.1 mg/l for a September 18, 1987 sample and 3.2 mg/l for

a September 29, 1987 sample. Based on these additional samples and the area tour, it was concluded that this was an isolated event. Special attention will be given by the sampling technicians in the future to being attentive to any appearance of floating oil slicks or circumstances which might appear to lead to this situation.

14) Noncompliance

On December 5, 1987, the screenhouse screens were backwashed for a total of 25 minutes (outfall 006) instead of the permit requirement of 40 minutes.

Corrective Action

Investigation of the incident determined that an operator discontinued a backwash to ensure that the screen backwash collection basket would not become overloaded with fish and debris. The basket was emptied, but the backwash was not resumed. Increased number of fish in the collection basket resulted in non-routine tasks being performed. The required duration of discharge was not accomplished due to the urgency of the moment. The operator has been counseled on the daily duration requirements of backwash.

- B. List of changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental issue:

No changes were made in this time period to station design, operation, tests, or experiments which involved a potentially significant unreviewed environmental issue.

- C. List of nonroutine reports submitted in accordance with Subsection 5.4.2:

- 1) A report on the release of chlorine gas was submitted by Illinois Power's letter dated May 5, 1987 (U-600929). There were no injuries or health risks due to this release.
- 2) A report on a fish kill in the discharge canal was submitted by Illinois Power's letter dated August 5, 1987 (U-600998).
- 3) A report on a fish kill in the discharge canal was submitted by Illinois Power's letter dated August 17, 1987 (U-601011).

- D. Results and/or assessments for the environmental monitoring programs described in Subsection 2.0 of the Environmental Protection Plan (EPP) which were submitted to the respective agencies during this reporting period:

A report describing the results of the 1986 amoeba monitoring program was submitted to the Illinois Department of Public Health on February 27, 1987. The report summarized the work in isolating *Naegleria fowleri* from sediment and water samples from Clinton Lake. This work demonstrated that *Naegleria fowleri* was present in Clinton Lake prior to thermal enrichment of the lake by Clinton Power Station.

A two-phased fog monitoring program has been designed and implemented to assess the impact of the Clinton cooling lake. The first phase of the monitoring program established a base line condition for the region before the power station was operational. Phase II measured the actual impact of the cooling lake on the region relative to the preoperational data.

A draft assessment of the preoperational monitoring period has been prepared. The preliminary results indicated significant wintertime fog events are expected even when the plant is not operating. These significant events are mainly the result of large scale, synoptic weather systems moving through the area.

The Phase II monitoring data is still being processed. A final assessment report relating both phases of monitoring will be prepared later this year.

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ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

April 22, 1988

Docket No. 50-461

Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Subject: Clinton Power Station  
Annual Environmental Operating Report

Dear Sir:

In accordance with Appendix B to Facility Operating License NPF-62, attached is the Annual Environmental Operating Report. This report covers the period from January 1, 1987 through December 31, 1987. If you have any questions on this report, please contact me.

Sincerely yours,

A handwritten signature in dark ink that reads 'F. A. Spangenberg, III'.

F. A. Spangenberg, III  
Manager - Licensing and Safety

DWW/ckc

Attachment

cc: NRC Clinton Licensing Project Manager  
NRC Resident Office  
Regional Administrator, Region III, USNRC  
Illinois Department of Nuclear Safety

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