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U-602277
L30-94(04-18)LP
1A.120

April 18, 1994

Docket No. 50-461

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

Subject: Clinton Power Station
Annual Environmental Operating Report

Dear Sir:

In accordance with Appendix B to the Clinton Power Station (CPS) Technical Specifications, Clinton Power Station's Environmental Protection Plan (EPP), Illinois Power (IP) is submitting the Annual Environmental Operating Report to the Nuclear Regulatory Commission. This report covers the period January 1, 1993, through December 31, 1993.

Sincerely yours,

Richard F. Phares
Director, Licensing

SFB/csm

Attachment

cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC

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Annual Environmental Operating Report

The Environmental Protection Plan (EPP) for Clinton Power Station (CPS) requires that the Annual Environmental Operating Report include:

- (A) A list of EPP non-compliances and the corrective actions taken to remedy them.
- (B) A list of all changes in station design or operation, tests, and experiments made in accordance with subsection 3.1 of the EPP which involved a potentially significant unreviewed environmental issue.
- (C) A list of non-routine reports submitted in accordance with subsection 5.4.2 of the EPP.
- (D) Any results and/or assessments for the environmental monitoring programs described in subsection 2.0 of the EPP which were submitted to the respective regulatory agencies during the annual reporting period.

The following provides Illinois Power's response to each listed item.

- A. A list of EPP non-compliances and the corrective actions taken to remedy them:
 - 1. During February, 1993, there was a missed weekly analysis for outfall 002a as a result of the mishandling of the Biological Oxygen Demand (BOD) samples that were analyzed on February 3, 1993, by Illinois Power's Central Laboratory.

During the Winter months, the demineralized water system at the Central Laboratory experiences an increase in oxygen content to levels above those set by procedures for BOD analysis. The excess oxygen is removed through agitation. The samples are agitated in a different container than that used for collection. Illinois Power believes the container used to agitate the sample contained a contaminant that caused the dissolved oxygen of all standards and samples to be less than the minimum detectable.

Corrective Action:

In the future, the Central Laboratory is treating its demineralized water with an inert gas to control the oxygen levels. This will preclude similar events from occurring in the future.

2. During a tour of the Screenhouse on March 20, 1993, an operator discovered that the fish collection basket was overflowing and approximately 500 fish had overflowed into the lake. The cause of the overflowing basket has been attributed to a buildup of foreign material on the basket that restricted the normal flow path.

Corrective Actions:

The fish were removed from the basket and lake surface. The basket was cleaned using a hydrolaser. The basket was returned to service and the traveling screens restarted with no evidence of further basket overflow.

3. On August 10, 1993, chemical treatment of Division II of the Safe Shutdown Service Water (SX) system (outfall 007) commenced at 1145. The initial Total Residual Halogen (TRH) sample obtained after the start of chemical injection at the system effluent monitoring point, prior to discharging to this Ultimate Heat Sink (UHS), indicated 0.15 ppm TRH at 1247. Injecting this concentration of halogen into the UHS constitutes a violation of the NPDES permit.

Corrective Action:

Upon learning of the sample analysis result, the chemical treatment Test Director discovered the pump used to provide the halogen detoxification solution into the system was not operating. He immediately increased the stroke and speed of the pump which then started injecting detoxification solution. The next sample at 1130 indicated 0.10 ppm TRH and the third sample taken at 1430 indicated ≤ 0.05 ppm TRH. Corrective Action taken to prevent reoccurring events consist of checking the pump and the tank levels of the detoxification solution for verification that the pump is operating properly.

4. On August 12, 1993, a sample of the Sewage Treatment Plant Effluent (outfall 002a) was collected for the five day Biological Oxygen Demand (BOD5) analysis. The sample should have been analyzed on the fifth day after collection but instead the analysis was performed on the sixth day. Therefore, the weekly sample analysis was not performed in accordance with the requirements of the NPDES Permit. The non-compliance was caused by the failure of the chemist to list the BOD5 analysis on the weekly analysis schedule.

Corrective Actions

A staff meeting was held to discuss the error and corrective actions. The sample login and tracking process has been reengineered. Individual assignments have been made for assuring accuracy of data input and tracking the samples through the laboratory. All of the chemists will work in accordance with the weekly analysis schedule and ensure that all of the required analyses will be placed on the schedule.

5. On November 10, 1993, a sample collected at the Sewage Treatment Plant Effluent (outfall 002a) contained 70 parts per million (ppm) Total Suspended Solids (TSS). The permit limit for this parameter is 60 ppm (Daily Maximum). This non-compliance occurred during Clinton Power Station's fourth refueling outage at a time when the site population was increased by several hundred contractors. Contributing to the non-compliance was the recent (October 30, 1993) shutdown of the Contact Stabilization (CS) Sewage Treatment Plant due to the low influent flows at the time and the onset of colder weather, which reduces the efficiency of the CS Plant. Following the shutdown of the CS Plant, influent flows to the Extended Aeration (EA) Plant increased to the capacity of the plant, which caused some solids to be hydraulically washed into the effluent.

Corrective Action

The EA Plant influent flow rate was reduced and the excess was allowed to overflow into the Large Equalization Tank. In addition, the process control sampling frequency was temporarily increased during the remainder of the outage and a continuing effort to provide sample results on a more timely basis was initiated.

6. On November 21, 1993, chlorination of the Circulating Water system (outfall 002) was resumed following the startup of the system after being repaired during Clinton Power Station's fourth refueling outage. A peak of 0.28 ppm Total Residual Halogen (TRH) was subsequently measured by the Discharge Flume chlorine monitor. The permit limit for this parameter is 0.2 ppm TRH.

Corrective Action

The chemical injection was secured, for the purpose of evaluating the non-compliance. The sodium hypochlorite injection rate was determined from historical data and was considered to be the correct dosage. Chemical treatment, using a reduced sodium hypochlorite injection rate, was subsequently resumed on November 25, 1993 and has continued without incident.

- B. A list of all changes in station design or operation, tests, and experiments made in accordance with subsection 3.1 of the EPP which involved a potentially significant unreviewed environmental issue:

There were no changes in station design or operation, tests, and experiments made in accordance with subsection 3.1 of the EPP which involved a potentially significant unreviewed environmental issue.

- C. A list of non-routine reports to be submitted in accordance with subsection 5.4.2 of the EPP:

There were no non-routine reports submitted in accordance with subsection 5.4.2 of the EPP.

- D. Any results and/or assessments for the environmental monitoring programs described in subsection 2.0 of the EPP which were submitted to the respective regulatory agencies during the annual reporting period:

There were no results and/or assessments submitted to regulatory agencies with respect to environmental monitoring programs described in subsection 2.0.