U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCMENT

REGION III

Report Nos. 50-373/80-08; 50-374/80-04

Docket Nos. 50-373; 50-374 License Nos. CPPR-99; CPPR-100

Licensee: Commonwealth Edison Company
P.O. Box 767
Chicago, IL 60690

Facility Name: LaSalle County Nuclear Station, Units 1 and 2

Inspection At: LaSalle Site, Seneca, IL (January 30-31, February 1, 7, 1980)
Commonwealth Edison Company Corporate Office (February 4, 1980)

Inspection Conducted: January 30-31, February 1, 4, and 7, 1980

M. J. Oestmann 3/5/80
Inspector: M. J. Oestmann

A. B. Jamuska for 3/7/80
Approved By: T. H. Essig, Chief
Environmental and Special
Projects Section

Inspection Summary

Inspection on January 30-31, and February 1, 4, 7, 1980 (Report Nos. 50-373/80-08; 50-374/80-04)

Areas Inspected: Routine, announced inspection of environmental protection for Units 1 and 2, including implementation of construction permit requirements; nonradiological environmental monitoring programs; status of item of noncompliance and open items identified in previous inspections; an investigation of cooling lake blowdown line rupture and subsequent environmental impact of blowdown corridor and adjacent farmland. The inspection involved 35 inspector-hours on site by one NRC inspector.

Results: Of the areas inspected, no apparent items of noncompliance or deviations were identified in two areas; one apparent deviation was identified in one area (failure to revegetate the affected area of the east face of the east dike in a timely manner - Paragraph 2a).

## DETAILS

1. Persons Contacted

Principal Licensee Personnel

*C. McDonough, Assistant to the Director of the Environmental Affairs Department (EAD), CECo
*R. Montzingo, Staff Biologist (EAD), CECo
J. Golden, Administrator, Radiological and Environmental Monitoring Program, Production and Systems Analysis Department (PSAD), CECo
L. Burke, Site Project Superintendent, LaSalle County Nuclear Station (LSCS)
J. Gutierrez, Environmental Site Coordinator, LSCS
**R. Rose, Lead Structural Engineer, LSCS
B. Wood, Quality Assurance Engineer, LSCS
**R. Holyoak, Plant Superintendent, LSCS
**W. Huntington, Lead Special Projects Engineer, LSCS
**G. Reardanz, Quality Assurance Engineer, LSCS
J. Ullrich, Engineering Assistant, LSCS
F. Lawless, Rad/Chem Supervisor, LSCS
**J. Bruciak, Engineering Assistant. LSCS

Other Personnel

D. Bedeker, tenant farmer of adjacent farmland owned by Mr. H. Killelea and Mrs. F. Nessinger

R. Engel, owner of farmland adjacent to blowdown corridor.

*Denotes those present at the corporate exit interview on February 4, 1980.
**Denotes those present at the plant exit interview on February 7, 1980.

The inspector also interviewed several other licensee employees during the course of the inspection, including health physics and chemistry technicians, members of the construction and security force, and general office personnel.

2. Licensee Action on Previous Inspection Findings

a. (Open) Noncompliance (50-373/78-05, 78-22, 79-05, 79-20; 50-374/78-05, 78-16, 79-03, 79-14): Failure to minimize erosion of the east dike of the cooling lake. The inspector discussed with licensee representatives the status of the environmental monitoring program regarding vegetative cover of the dikes and the dredging and seeding of the Armstrong

Run, described as part of the five requirements on page 4-6 in the FES-OL. The licensee committed to meeting these five requirements as discussed in a previous inspection report. [1/] The inspector reviewed the 1979 environmental inspection reports of the cooling lake dike conducted by the licensee's contractor, Sargent and Lundy, in accordance with requirement 2. In January 1979, the contractor recommended re-seeding the exterior dike from approximately the station 140 to 156; in May 1979, the contractor found little or no vegetation at Station 76; in August 1979, an area on the east dike between Station 154 and Station 170 had little or no crown vetch, rather it contained weeds, clover, and rye grass. The inspector found that re-seeding of the dike between Stations 96 to 99, 140 to 141, and 174 to 176 had been completed in August 1979 by the Walsh Construction Company, a licensee contractor. In October 1979, the inspector toured the cooling lake and noted that certain sections of the east face of the dike required additional seeding. This was observed during a previous inspection conducted in May 1979. [2/] At that time, the licensee informed the inspector that he had planned to re-seed the dike wherever it was needed during June 1979. In reference to requirement 3, the licensee did not re-vegetate, particularly with crown vetch, the affected area along stations approximately 145 to 200 in a timely manner, in 1979. This is a deviation from the licensee commitment.

In reference to requirements 4 and 5, the inspector determined the Armstrong Run had been dredged last fall in 1979, by the landowner's contractor, T. T. K. Enterprises. The inspector discussed the seeding of banks of the run with the tenant farmer, Mr. Bedeker. He plans to seed the banks in April and May 1980.

This item remains open, pending completion of the licensee commitments [3,4/] to take actions discussed in Items 3, 4, and 5 of the FES-OL. The above areas will be reviewed during a future inspection.

b. (Open) Significant Inspection Finding (50-373/78-26, 79-05, 79-20): Completion of emergency planning implementing procedures (LZP's). Several LZP's identified in Inspection Report No. 50-373/79-20 remain to be completed prior to the licensee receiving a fuel load license. The licensee's emergency plan, the Generating Station Emergency Plan, and Annexes and LPZ's are being revised

1/ IE Inspection Report Nos. 50-373/79-05; 50-374/79-03.
2/ IE Inspection Report Nos. 50-373/79-20; 50-374/79-14.
3/ Letter, M. Turbak (CECo) to V. A. Moore (NRC), dated March 16, 1978.
4/ Letter, C. Reed (CECo) to V. A. Moore (NRC), dated May 25, 1978.

in light of changes in emergency planning requirements by NRC. This item remains open, pending approval of the revised GSEP, Annexes and LPZ's by NRC.

c. (Open) Significant Inspection Finding (50-373/79-05; 50-374/79-03): Completion of the licensee's quality assurance and quality control of analytical measurements and measurements capability test for confirmatory measurements inspection program. The inspector discussed the status of the chemistry and radiochemistry program with licensee representatives. A tour of these facilities was made during this inspection. The facilities are being equipped with counting equipment. Once the equipment is calibrated the licensee will be ready to accept radioactive samples for counting and to test his analytical capability within the next several months pursuant to the NRC's Confirmatory Measurements Program. His analytical procedures also should be completed at that time. This item remains open, pending completion of the Confirmatory Measurements Program prior to fuel load license.

3. Management Controls

The inspector examined the licensee's management of the preoperational nonradiological environmental monitoring programs and implementation of environmental protection practices to assure compliance with Construction Permit requirements. The management control aspects, including organizational responsibilities, delegation of authority, and adminstrative procedures, have remained the same as described in the previous environmental inspection. 5/

The inspector reviewed a site quality instruction prepared by the licensee's Quality Assurance Department, to assure that the construction management sign-off the daily, monthly, and bi-monthly environmental protection check sheets in compliance with their Construction Permit environmental procedure. This directive, dated June 4, 1979, was in response to an item discussed in a previous inspection. 6/ The inspector has no further questions regarding this matter.

The inspector discussed with licensee representatives the administrative controls which the licensee needs to implement in order to meet the five licensee commitments discussed on page 4-6 of the Final Environmental Statement and in References 3 and 4 in this inspection report. The licensee agreed to prepare management instructions to implement and comply with the commitments in the FES-OL. This remains as an open item and will be examined during a subsequent inspection.

5/ IE Inspection Report No. 50-373/79-20; 50-374/29-14.
6/ Ibid.

The inspector reviewed licensee internal documentation which reported the management of the Hazleton contract for the aquatic and terrestial monitoring program by the Environmental Affairs Department. This was in response to an item discussed in a previous inspection. [7] A five year environmental program was completed in 1978 and the fifth annual report was issued in 1979. The inspector has no further questions regarding this matter.

No apparent items of noncompliance or deviations were identified.

4. Licensee Internal Audits

The inspector examined the check sheets for calendar year 1979, used to comply with the Construction Permit environmental protection requirements. This sheet is completed by the Environmental Site Coordinator, either on a daily, monthly, or bi-monthly basis. The check sheets were found to be reviewed by the licensee's Quality Assurance Department and construction management, in accordance with an established environmental protection procedure. The Environmental Affairs Department also reviewed the monthly and bi-monthly check sheets in accordance with the same procedure. This review and audit of the check sheets by site management and the Environmental Affairs Department are in response to an item discussed in a previous inspection report. [8] The inspector has no further questions regarding this matter.

No apparent items of noncompliance or deviations were identified.

5. Implementation of the Preoperational Monitoring Program for Environmental Protection

a. Implementation of the Ecological Monitoring Program

The licensee issued its fifth annual report in 1979 for the five year aquatic and terrestial ecological monitoring program completed in 1978. This program was conducted by the licensee's contractor, Hazleton Laboratory from 1974 to 1978. The licensee's contractor conducted studies of phytoplankton, and its physiology, periphyton, zooplankton, macroinvertebrates, and fisheries in the aquatic program. No apparent construction effects were evidenced on aquatic life in the Illinois River and the South Kickapoo Creek. The terrestial program showed that minor effects such as avian breeding resulted from construction. The cooling lake attracted large numbers of water fowl. This is the most significant plant construction - related effect on local

7/ IE Inspection Report Nos. 50-373/78-05; 50-374/78-04.
8/ IE Inspection Report Nos. 50-373/79-20; 50-374/79-14.

wildlife populations noted during the study. The study also showed that revegetation of the blowdown corridor, particularly sloping areas crossing the bluff, was proceeding slowly.

Seeding of the make-up and blowdown corridor, using a grass legume seed mixture was completed on October 13, 1979. The inspector examined the blowdown corridor on October 18, 1979, and found the area had been seeded and hay laid down to hold the seed. Fences were installed to restrict recreational traffic. No significant problems were identified at this time.

b. Rupture of Blowdown Pipe

On January 25, 1980, during adjustment of the Howell-Bunger valve on the cooling lake blowdown pipe, the 66-inch blowdown pipe ruptured upstream of the valve. A hole in the ground 40 x 60 feet resulted. Water from the pipe flowed down ravines on the licensee's property along the blowdown corridor and into the Illinois River. Some of the water flowed into a ditch which overflowed onto a driveway of farmland owned by Mr. Engel, causing some erosion of his property. The licensee has offered to pay for any property damage.

On January 30, 1980, the inspector observed a bulldozer removing and excavating earth on top of the blowdown pipe. Photographs of the excavation operation were taken. The inspector also contacted the farmland owner, Mr. Engel, and discussed the damage to his property. The licensee plans to dredge the ditch and repair the driveway and farmland in early spring. This item will be examined during a future inspection.

The licensee is conducting an investigation of the cause of the rupture, believed to result from a water hammer effect. The licensee is to submit to the NRC, a copy of the investigation report and a plan of action to be taken to eliminate or significantly reduce the detrimental effects or damage, in accordance with Section 3.E(2) of the Construction Permit. This item was discussed at the exit interview and will be examined during a subsequent inspection.

The inspector also discussed with licensee representatives, the licensee's capability to isolate the cooling lake in the event of a future rupture. During this particular pipe rupture, the cooling lake was isolated by closing the butterfly valves on the blowdown line in the valve house near the north side of the cooling lake dike. The licensee can also regulate and isolate the blowdown flow, normally 45,000 gpm, from the cooling lake by means of the Armco gates located on the blowdown channel, at a point before the blowdown line goes under the cooling lake service spillway. The inspector has no further questions regarding this matter.

c. Fog Monitoring Program

The licensee has initiated a fog monitoring program described in a letter to the NRC from the licensee, on January 2, 1980. The licensee's meteorological contractor, Murray and Trettle Incorporated, has trained four plant personnel to conduct the visual observations for the fog monitoring program. The inspector discussed with the licensee representatives whether a plant procedure would be prepared to implement this program. No decision was made regarding this matter. This item will be examined during a subsequent inspection.

d. Cooling Lake Monitoring Program

This program, described in Section 6 of the FES-OL, will be initiated in the summer or fall of 1980, when it is anticipated that plant construction will be completed and pumping of the water through the circulating water system will begin. This item will be reviewed during a future inspection.

e. Ground Water Monitoring

The inspector examined records for CY-1979 of ground water level of 20 observation wells installed in the vicinity of the cooling lake.

The licensee has prepared a cooling lake dike inspection procedure (LTS-1000-5) for checking the seepage from the lake and assuring the integrity of the cooling lake dike. The inspector also reviewed a report, dated November 1, 1979, from Harza Engineering Corporation which discussed the results of water elevations in the observation wells, settlement monitoring of the dike, and dike integrity. No particular problems were identified.

f. Environmental Protection Requirements

The inspector reviewed the environmental protection program which has been implemented by the licensee in accordance with Construction Permit requirements. Review of the daily, monthly, and bi-monthly check sheets for CY 1979, completed by the Environmental Site Coordinator, indicated a need for re-seeding of the south end of the blowdown corridor on November 14, 1979. The initial seeding of the makeup and blowdown corridor was completed on October 13, 1979. After the repairs of the blowdown line rupture discussed above in Paragraph 5.b, the licensee will re-seed these sections requiring seeding. This item will be examined during a subsequent inspection.

As discussed in Paragraph 2a above, the inspector reviewed the status of the environmental monitoring program regarding vegetative cover of the dikes, and dredging and seedingof the Armstrong Run. In reference to requirement 1, described on page 4-6 in the FES-OL, the licensee contractor, Hazleton Laboratory, prepared a second annual report on November 15, 1979, in which the contractor conducted a quantitative measurement of vegetative cover of the dikes. The results indicate average vegetative cover ranges from 75.7% in May to 73% in August 1979. The predominant vegetative cover is crown vetch (up to 50%), followed by annual, biennual, perennial volunteer species, primarily weeds. The inspector discussed, with licensee representatives, her concern regarding the poor vegetative cover on the east face of the east dike also discussed in Paragraph 2a above. These items will be reviewed in a subsequent inspection.

g. Radiological Environmental Monitoring Program (REMP)

The inspector discussed with licensee representatives, the collection of fish for the REMP. The licensee has obtained Ecological Analysts as a sub-contractor to collect and provide fish samples to the Eberline Instrument Corporation, for radioanalysis in accordance with the licensee's REMP. This item was discussed in a previous inspection. 9/ A review of data on fish sampling and analysis for CY 1979 indicates all analyses were completed. The inspector has no further questions regarding this matter.

A licensee representative also reported that in the future the licensee's Quality Assurance Department will conduct all quality assurance audits of the REMP contractor performance rather than the adminstrator of the REMP program and his associates in PSAD.

No apparent items of noncompliance were identified. One deviation was identified in reference to the poor vegetative cover on the east face of the east dike and discussed in Paragraph 2.a.

6. Exit Interview

The inspector met with licensee representatives denoted in Paragraph 1 at the conclusion of the inspection on February 4, 1980, at the corporate headquarters, and February 7, 1980, at the plant. The inspector summarized the purpose and the scope of the inspection, and the findings. The licensee representatives made the following remarks:

9/ Ibid.

a. Acknowledged that additional seeding with crown vetch was needed on the east face of the east dike and agreed to reseed this area during the planting season in the spring of 1980 (Paragraph 2.a.)

b. Discussed and would prepare an investigation report pertaining to the blowdown pipe rupture, and submit a copy of the report to the NRC as soon as possible. (Paragraph 5.b.)