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

REGION III

Report No. 50-367/81-01

Docket No. 50-367 License No. CPPR-104

Licensee: Northern Indiana Public Service Company
5265 Hohman Avenue
Hammond, IN 46325

Facility Name: Bailly Generating Station, Nuclear 1

Inspection At: Corporate Headquarters (January 27, 1981)
Bailly Site (January 28, 1981)

Inspection Conducted: January 27-28, 1981

Inspector: M. J. Oestmann — 2/10/81

Approved By: C. J. Paperiello, Chief
Environmental and Special
Projects Section — 2/18/81

Inspection Summary

Inspection on January 27-28, 1981 (Report No. 50-367/81-01)
Areas Inspected: Routine, unannounced inspection of enviromental protection including: administrative controls; review of ecological monitoring program relating to procedures, schedules, and results; review of well monitoring results; a tour of the site to observe wells and sampling locations. The inspection involved 12 inspector-hours onsite by one NRC inspector.
Results: Of the areas inspected, no apparent items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

C. Kern, Supervisor, Environmental Planning, Corporate Headquarters
*R. Bohn, Manager, Nuclear Staff, Plant Site
*A. Severance, Supervisor, Mechanical and Nuclear Engineering, Plant Site
D. Bell, Mechanical Engineer, Plant Site

*Denotes those present at the exit interview.

2. General

The inspection consisted of an examination of implementation of the licensee's ecological monitoring program and a review of the well monitoring data. Administrative controls regarding implementation of the ecological monitoring program were also reviewed.

3. Administrative Controls

The inspector reviewed the administrative and procedural controls for implementation of the environmental monitoring program. The Supervisor in the Corporate Environmental Planning Department (EPD) manages environmental planning activities, including the water quality and the terrestrial monitoring program. The EPD is responsible for the day-to-day activities of the environmental monitoring program to assure the environmental contractors perform according to the contractual specifications. The administrative control of contracts is managed by the Nuclear Staff. A licensee's memo identifies environmental responsibilities for construction of the plant between the Environmental Planning, Nuclear Staff and Quality Assurance Departments.

The aquatic and terrestrial ecological monitoring program is conducted by Texas Instruments, Inc. Interdunal pond water monitoring is performed by Salisbury Engineering Inc., and the chemical analysis of pond water by the Northern Laboratories.

No apparent items of noncompliance or deviations were identified.

4. Review of Environmental Standard Operating Procedures (SOP's)

Several SOP's used in the environmental monitoring program were reviewed. They included: (1) "Quality Control and Quality Assurance Manual," dated June 30, 1977, for the Texas Instruments' Program, with revisions on substrate particle size analysis, dated October 9, 1978; (2) SOP-16, Revision 3, "Procedures for Collection, Analysis, Verification, and Document Control for the Interdunal Pond Monitoring Program," dated May 26, 1978; and (3) SOP-20, Revision 2, "Procedure for Identification, Analysis, Resolution, and Documentation of Construction Related

Environmental Perturbations," dated May 11, 1979. General and specific instructions for the licensee and his environmental contractors to follow in the conduct of the environmental monitoring program are presented in these procedures. No problems were identified in these procedures.

No apparent items of noncompliance or deviations were identified.

5. Environmental Monitoring Program Results

The inspector reviewed Texas Instruments Inc. quarterly reports for three quarters in CY 1979 and three quarters in CY 1980 for the aquatic and terrestrial ecological monitoring program. Information not included in a previous quarterly report is presented in the following quarterly report. The terrestrial monitoring program includes monitoring of vegetation, avifauna, mammals, reptiles, amphibians, terrestrial invertebrates, and soils. The aquatic monitoring program includes monitoring of phytoplankton, periphyton, zooplankton, benthos, fish, fish eggs and larvae, submerged and floating macrophyton (ponds). Chemistry and bacteriology are included in the water quality program. Review of the results indicated no usual trends in the data nor any significant problems, except for the analysis of iron and manganese found in water taken from the ash ponds, Cowles Bog, and one interdunal pond in the fourth quarter of 1979. The iron exceeded the 0.3 mg/l and the manganese 0.05 mg/l Indiana drinking water standards. However, the controlled samples were also reading at high levels, thereby indicating a more general problem. None of the concentrations, however, were sufficiently high to cause problems to the indigenous biota. The levels of concentrations of metals such as iron and manganese in the interdunal ponds and the Cowles Bog are being carefully monitored.

The inspector also reviewed the two 1978-1980 Annual Reports encompassing the results for the periods of April 1978 - March 1979 and April 1979 - March 1980. No anomalous results or trends were observed except for expected defoliation of numerous plants in the transmission corridors due to herbicide application to vegetation and a fire in early 1979. These annual reports also note the high iron levels in all the interdunal ponds observed during 1976 and 1977 which were not observed during 1978 but found again in 1979. This item was discussed in a previous inspection report.[1/] The licensee concluded that with the exception of some seepage into one interdunal pond, no indication exists that the plant construction has a significant effect on the biota or water quality on the site.

No apparent items of noncompliance or deviations were identified.

6. Gound Water Monitoring

The inspector toured the site with licensee representatives and observed the numerous wells which have been constructed on the site. The recording instrumentation on the piezometers to record the water levels were observed

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to be operational. The inspector noted that the calibration data were marked on the recording charts for reference and observed the method used to determine periodic flow accuracy. These charts are collected weekly. The licensee also constructed two additional wells since the previous inspection.[2/]

The licensee has submitted to NRC weekly well depth data which include independent audits of well depth measurements data and charts of water depth. The inspector reviewed the weekly reports for the periods from March 25, 1979, through December 31, 1980. These reports were deemed technically adequate.

The licensee has sealed three existing ash bed basins in 1980. This has reduced water seepage to the interdunal ponds. The inspector observed that during a tour of the site one pond onsite had essentially dried up. This sealing of ash bed basins was done in agreement with the National Park Service in order to allow the ground water levels within the Indiana Dunes National Park to return to their natural levels. The licensee plans to seal two additional ash ponds in 1981.

This work is in response to an U. S. Geological Survey program designed to predict the environmental impact on the Indiana Dunes Park due to dewatering at the Bailly construction site. The licensee has also employed D'Appolonia Engineering Company to assess the influence of dewatering on the plant site and the surrounding area. This program is also being reviewed by the NRC Office of Nuclear Reactor Regulation.

The inspector also reviewed the results for CY 1979 and CY 1980 of chemical analysis of interdunal pond water samples analyzed by the licensee's contractor, Northern Laboratories. These analyses included dissolved oxygen, pH, chloride, specific conductivity, and turbidity. They did not include any metal analysis. No significant problems were observed.

No apparent items of noncompliance or deviations were identified.

7. Exit Interview

The inspector met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on January 28, 1981. The inspector summarized the purpose, scope and findings of this inspection.

2/ Ibid.