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May 1, 1991
PY-CEI/OEPA-0127 L

Ohio Environmental Protection Agency
Division of Water Pollution Control
Permits Section
P.O. Box 1049
1800 Watermark Drive
Columbus, Ohio 43266-0149

OEPA Permit No.: 3IB00016*DD
Public Notice No. OEPA-91-04-017

Gentlemen:

Pursuant to Ohio Environmental Protection Agency Public Notice Number OEPA-91-04-017, dated April 4, 1991, the Cleveland Electric Illuminating Company (CEI) submits the following comments to Draft NPDES Permit Number 3IB00016*DD for the Perry Nuclear Power Plant (PNPP), located in Lake County, Ohio.

Outfall 6004, Point Representative of Discharge Prior to Entry to the Tunnel Which Discharges to Lake Erie, page 4 of 14:

1. CEI recommends that proposed Discharge Limitations and Monitoring Requirements for Residue, Total Non-filterable (Reporting Code 00530) be deleted. The previous NPDES permit (No. 3IB00016*CD) states in Part II, item D, page 7 of 14, the permittee's cooling water intake has been determined to reflect best technology available pursuant to Section 316(b) of the Clean Water Act (CWA). Therefore, it is our understanding that no discharge limits for residue, total non-filterable (or total suspended solids) are applicable per 40CFR Part 423.13.

In addition, it is our position that plant operations have no deleterious effect on Lake Erie and that its water quality is being adequately protected. The proposed limit for Residue, Total Non-filterable (17MG/L) is overly restrictive and would be impossible to obtain with any degree of consistency, based on the following information.

Our assumption is that the limit proposed by the Ohio EPA was based on data provided by CEI in the Permit to Install (PTI) application for PNPP, filed June 10, 1974 (see Answer 1 to Question No. 14 of the PTI). However, the data provided in Answer 1 to Question No. 14 of the PTI was only intended to show the negligible effect of plant operation on

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discharge water quality, based on nominal lake water composition, and was not intended to represent a design limit independent of lake water composition. The inconsequential effect of Outfall 6004 on lake water quality is also provided in the answer to Question 16 of the PTI, which shows that the daily loading of suspended solids (in pounds/day) in lake water intake is not altered by plant discharge.

Additionally, the data on lake water suspended solids provided in the PTI application was based on limited early studies. Additional lake water suspended solids data are presented below to put this in the proper perspective.

The source referenced in the PTI application for water quality data was the Environment Report prepared by NUS Corp. for PNPP. Additional data were later compiled in the Environmental Report - Operating License Stage (ER-OLS), docketed with the U.S. Nuclear Regulatory Commission (Docket Number 50-440). Data from Table 3.6-2 of the ER-OLS shows that lake water had a suspended solids range from 1 to 200 MG/L.

Most recently, daily suspended solids levels of 1988 and 1989 samples from our Eastlake and Ashtabula C fossil plant intakes were reviewed. These sites were selected because their location and construction make it possible to predict probable suspended solids results for PNPP. This review revealed that for the two referenced years, suspended solids in lake water:

- a. ranged from 0 to 200 MG/L at both plants.
- b. averaged above 18 MG/L, 50% and 40% of the time at Eastlake and Ashtabula respectively.
- c. averaged above 50 MG/L, 20% and 14% of the time at Eastlake and Ashtabula respectively.
- d. averaged the following number of months at the suspended solids levels listed below:

Year	(MG/L)	Ashtabula			Eastlake		
		< 30	30 - 50	> 50	< 30	30 - 50	> 50
1989	Months	7	4	1	8	3	1
1988		8	3	1	7	2	3

Based on these raw water analyses, the proposed limit (17 MG/L) is unreasonable and probably not achievable during certain periods.

2. CEI recommends that the proposed Discharge Limitation and Monitoring Requirement for Oil and Grease, Total (Reporting Code 550) be deleted. Federal effluent limits in 40CFR Part 423.13 for Best Available Technology (BAT) do not include oil and grease.

In addition, the proposed limit (6.8 MG/L) is overly restrictive and has no legitimate basis. There are no contributions to oil and grease levels resulting from discharge of waste water from PNPP. Also, the proposed limit of 6.8 MG/L is too close to the minimal detection limit (5.0 MC/L) for the analytical technique, and could result in (false) positive readings and unnecessary violations.

3. CEI recommends that the proposed daily limit (0.2 MG/L) for Chlorine, Total Residual (Reporting Code 50060) be deleted. The BAT effluent limit for total residual chlorine in 40 CFR Part 423.13 applies to once through cooling systems. This limit is not applicable, since PNPP uses a recirculated cooling water system design.

Additionally, the limit proposed for total residual chlorine does not coincide with the daily limit for Free Available Chlorine (Reporting Code 50064). Standard Methods for the Examination of Water and Wastewater (reference 40 CFR Part 136.3, Table 1B, Item 17), Standards Method 408C states "Subtracting the free available chlorine from the total (residual chlorine) gives the combined residual chlorine." Since total residual chlorine is defined as the sum of combined and free available chlorines, then a limit for total residual chlorine which is less than the limit for free available chlorine is unreasonable.

4. CEI recommends that the proposed pH limit, item 2, page 4 of 14, be revised to 6.0 S.U. from 6.5 S.U.. The pH of discharge from outfall 004 is dependent on Lake Erie, rather than plant operations. Lake water pH was documented in the PNPP Environmental Report - Operating License Stage to be in the range from 7.7 to 8.5 S.U., with a nominal value of 7.9 S.U.. Operational pH data for discharge from outfall 004 since 1986 range from 6.3 to 8.7 S.U., and averaged 8.1 S.U.. Acids are not added to the cooling tower to control pH, so there is no impact on discharge pH from cooling tower blowdown. Also, there are no BAT effluent pH limits per 40 CFR Part 423.13.

Outfall 6002, Discharge from the Chemical Cleaning Lagoon, page 3 of 14:

5. CEI recommends that the Discharge Limitations and Monitoring Requirements for Phosphorus, Total (P), Reporting Code 00665, be deleted. CEI has demonstrated with its fossil plants that monitoring for Phosphorus is unnecessary.

Outfall 6001, Discharge From Regenerant Neutralization Pits, page 2 of 14 :

6. CEI recommends that the Measurement Frequency for Residue, Total Nonfilterable (Reporting Code 00530) and Oil and Grease, Total (Reporting Code 00550) be revised to 2/Month, consistent with the previous permit, rather than the proposed 1/2 weeks. This provides better operational

flexibility. Operational data from PNPP has shown that the required sampling frequencies have been representative.

If you need any additional information, please contact Al Lambacher, (216) 259-3737, extension 5520, or John Grimm, at extension 5406.

Sincerely,

A handwritten signature in cursive script, appearing to read "M. D. Lyster".

Michael D. Lyster

MDL: AHL:njc

cc: B. Hall, OEPA - Northeast District Office
NRC Document Control Desk
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