THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ASHTABULA PLANT -- PERMIT NUMBER 868.15

IMPACT ON LAKE ERIE WATER QUALITY

The attached summary of the 1972 data shows that the pH of all outfalls was between 6.0 and 8.2. Therefore, there was no effect to the lake water.

In January and February, prior to the conversion to dry fly ash handling, suspended solids were slightly high. During the actual startup of the dry fly ash facilities in March, some values were very high which would have had a detrimental effect on the lake if operation had continued.

Following the conversion, the fluctuation in outfall suspended solids from minimum to maximum, closely followed the natural fluctuation of the lake water suspended solids for the year. Consequently, there was only minor addition of solids to the lake and no adverse impact.

There was no observable adverse effect on water quality from the cooling water discharge.

US EPA RECORDS CENTER REGION 5
421419

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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October 11, 1972

Mr. Gordon A. Yesser, Chief
Construction-Operations Division
Department of the Army
Buffalo District, Corps of Engineers
1775 Niagara Street
Buffalo, New York 14207

Dear Mr. Yesser:

We have reviewed the data returned in your letter of September 13, 1972, which had originally been furnished you on July 1, 1971 with our application No. 000355 for a Department of the Army permit to discharge industrial effluent from our Ashtabula Plant.

The information previously furnished you is still applicable except as noted below. The changes noted occurred as the result of more extensive testing and the conversion to dry ash handling facilities.

Unless indicated below, the information listed on the data sheets is still applicable.

In addition to detailing the changes in the body of this letter, the new results are also penciled in on copies of the data sheets that we received from you, which are also enclosed.

A. Discharge Serial No. 001

Parameters	Untreated Lake Water	Daily Average Discharge Concentration
Total Solids	233 ppm	237 ppm
Total Dissolved Solids	190 ppm	196 ppm
Total Suspended Solids	43 ppm	42 ppm
Total Volatile Solids	88 ppm	77 ppm
Nitrate (as N)	0.10 ppm	0.31 ppm
Phosphorus Total (asP)	0.10 ppm	0.14 ppm

Aluminum - Total	6,287 ppb	50,036 ppb
Arsenic - Total	W	
Chromium - Total	W	
Iron - Total	2,211 ppb	3,540 ppb
Manganese - Total	163 ppb	157 ppb
Mercury - Total	1.1 ppb	2.7 ppb
Turbidity (Jackson Units)	33	81
pH	7.4	7.6

B. Discharge Serial No. 002

Parameter	Untreated Intake Water	Daily Avg. Discharge Concentration
Total Solids	233 ppm	297 ppm
Total Dissolved Solids	190 ppm	240 ppm
Total Suspended Solids	43 ppm	57 ppm
Total Volatile Solids	88 ppm	77 ppm
Ammonia (as N)	0.25 ppm	0.67 ppm
Total Hardness	124 ppm	154 ppm
Sulfate	38 ppm	96 ppm
Calcium - Total	35.2 ppm	37.1 ppm
Potassium	0.66 ppm	1.30 ppm
Aluminum - Total	6,287 ppb	25,734 ppb
Arsenic - Total	W	
Chromium - Total	W	
Iron - Total	2,211 ppb	3,399 ppb
Manganese - Total	176 ppb	163 ppb
Turbidity (Jackson Units)	33	36
pH	7.4	7.6

Sincerely yours,

Harold L. Williams

Harold L. Williams,
Vice President - Engineering

Encl.
HLW:CDB/cr