

ILLINOIS POLLUTION CONTROL BOARD
December 19, 1974

VILLAGE OF ADDISON,)	
)	
Petitioner,)	
)	
vs.)	PCB 74-288
)	
ENVIRONMENTAL PROTECTION AGENCY,)	
)	
Respondent.)	

OPINION AND ORDER OF THE BOARD (by Mr. Dumelle):

This is a Petition for a Variance filed by the Village of Addison (hereinafter Addison) with the Environmental Protection Agency (hereinafter Agency) on July 29, 1974.

On August 15, 1974, the Board found the petition to be inadequate in that it did not address the issue of environmental impact of the discharge on Salt Creek. On September 4, 1974, the Agency received Petitioner's amended petition.

Petitioner seeks a variance from certain rules of Chapter 3: Water Pollution Regulations of Illinois (hereinafter Chapter 3) to continue operation of the existing wastewater treatment facilities at the South Plant in Addison until the proposed improvements can be designed, constructed, and placed into service. The Agency interprets the petition as requesting a variance from Rule 203(d), 203(f), 203(g), and 404(c)(ii) of Chapter 3, Water Pollution Regulations.

Addison's South Sewage Treatment Plant consists of two plants operating in parallel. The first plant is a high-rate trickling filter plant and the second is an activated sludge plant. The effluent is presently passed through tertiary filters and discharged through a common pipe. Total plant effluent presently meets the current BOD and suspended solids standards of 20/25 mg/l but will be unable to meet the 10/12 mg/l standard of Rule 404(c)(ii) upon the effective date of December 31, 1974. The Agency calculated the low flow of Salt Creek to be 6.2 MGD using the discharges of the sewage treatment plants into Salt Creek above the Addison South Plant. Using the design average flow of the South Plant of 2.1 MGD the dilution ratio is about 3 to 1.

Listed below are BOD and suspended solids concentrations as reported by Petitioner in its monthly operational reports to the Agency.

<u>DATE</u>	<u>BOD</u>	<u>SS</u>
July 1973	16	11
August 1973	14	10
September 1973	16	12
October 1973	20	8
November 1973	15	13
December 1973	11	9
January 1974	13	10
February 1974	16	9
March 1974	12	12
April 1974	12	7
May 1974	12	11
June 1974	8	11
July 1974	31	15

The subject plant has been designated as a regional wastewater treatment facility. A 2.0 MGD expansion has been proposed for the activated sludge process with the elimination of the trickling filter operation. Petitioner believes that the proposed improvements should produce an effluent conforming to the standards of Rule 404(c) (ii).

The Step 1 grant priority for this project is #40. Petitioner alleges that the Village would suffer an unreasonable hardship if required to meet the December 31, 1974 deadline since it would have to relinquish its grant for Federal assistance. The estimated cost for the upgrading project is \$5,281,500.

The impact of the Addison South Sewage Treatment Plant on Salt Creek is difficult to assess. Nine treatment plants discharging above Addison South Sewage Treatment Plant have a total dry weather flow of 6.23 MGD. There are five more discharges with a combined dry weather flow of 9.73 MGD below the plant.

The following Agency data indicate that the stream below Addison is of lesser quality than upstream for the parameters of dissolved oxygen, ammonia, and fecal coliform.

1973

<u>LOCATION:</u>	<u>ABOVE ADDISON</u>			<u>BELOW ADDISON</u>		
	<u>IRVING PARK RD. RR. AT WOOD DALE</u>			<u>ST CHARLES RD. RR. AT VILLA PARK</u>		
<u>PARAMETER</u>	<u>D.O.</u>	<u>FECAL COLI.</u>	<u>AMMONIA AS N.</u>	<u>D.O.</u>	<u>FECAL COLI.</u>	<u>AMMONIA AS N.</u>
# of Analysis	9	9	9	11	11	11
Max. Value	11.9	30000	1.80	10.4	880000	4.10
Min. Value	4.0	10	.13	1.5	100	.37
Mean	7.5	389	.64	5.7	4939	1.37
Median	7.7	500	.44	6.0	3700	.90
Criterion	5.0	200	1.50	5.0	200	1.50

1972

LOCATION	ABOVE ADDISON			BELOW ADDISON		
	IRVING PARK RD. RR. AT WOOD DALE		AMMONIA	ST. CHARLES RD. RR. AT VILLA PARK		AMMONIA
PARAMETER	D.O.	FECAL COLI.	AS N.	D.O.	FECAL COLI.	AS N.
# of Analysis	4	2	3	3	3	4
Max. Value	10.0	400	.70	10.0	16000	2.30
Min. Value	7.5	200	.20	7.5	100	.20
Mean	8.6	199	.40	8.5	2519	.89
Median	8.5	250	.30	8.0	10000	.53
Criterion	5.0	200	1.50	5.0	200	1.50

It is clear from the above that Petitioner's effluent diminishes water quality and results in apparent violation of Rules 203(d), 203(f) (Ammonia Nitrogen), and 203(g). The Agency believes that the operation and maintenance of the Addison South Sewage Treatment Plant and other sewage dischargers to Salt Creek must be continued and optimized to produce the best effluent possible from existing facilities to prevent critical stream degradation until upgraded treatment facilities are in operation.

The Agency believes that it will be at least 1 1/2 to 2 years before construction can begin on the addition to Plant No. 2 and may take even longer depending on design approval and grant priority. Thus, in the event the requested variance is granted, renewal will apparently be required.

Balanced against the adverse environmental harm described above, we must weigh the hardship to Petitioner in the event the variance is denied and must consider the explanations or justifications for the delay in compliance. In the event Petitioner proceeded with upgrading, the possibility of grant assistance would be eliminated. Requiring the Village to bear the total cost in excess of \$5 million would impose an extreme financial burden on the municipality and its taxpayers.

The Agency has recommended a grant of the Variance with certain conditions and we agree.

This Opinion constitutes the findings of fact and conclusions of law of the Board.

IT IS THE ORDER of the Pollution Control Board that:

1. A Variance from Rules 203(d), 203(f) (Ammonia Nitrogen), and Rule 203(g) of the Water Pollution Regulations be granted for a period of one year;

2. That a Variance from Rule 404(c)(ii) be granted for a period from December 31, 1974 until one year from the date of the Board Order in this matter; and

3. That the above Variances be granted subject to the following conditions during the term of the variances:

i. That Petitioner not increase the strength or quantity of contaminants discharged;

ii. That plant BOD and suspended solids concentrations at no time exceed 20/25 mg/l.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted was on 19th day of December, 1974 by a vote of 4-0.

Christan L. Moffett (gn)
Christan L. Moffett, Clerk
Illinois Pollution Control Board