

ILLINOIS POLLUTION CONTROL BOARD  
January 14, 1976

ILLINOIS POWER COMPANY, )  
Petitioner, )  
 )  
v. ) PCB 75-221  
 )  
ENVIRONMENTAL PROTECTION AGENCY, )  
Respondent. )

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

This matter comes before the Pollution Control Board (Board) upon the petition of Illinois Power Company (Illinois) for variance from Rule 203(f) of the Water Regulations as it applies to boron and Rule 408 of the Water Regulations as it applies to total suspended solids (TSS) and pH. Illinois seeks its variance from the boron standard for a period of 12 months as an extension of the variance granted in PCB 74-423. The variance from Rule 408 is sought for a six month period. The facility for which the variances are sought is Petitioner's fossil-fueled electric power generating station, Wood River, East Alton, Madison County, Illinois. Petitioner's final amendment to its petition was filed September 15, 1975.

Illinois uses an ash lagoon system to treat its fly and bottom ash sluice waters. After fuel is burned, it is sluiced with water to the lagoon where settling of suspended solids occurs. During the retention period water reacts with the fly ash releasing boron. The effluent is discharged into an unnamed tributary of Wood River Creek which flows into Wood River Creek and eventually into the Mississippi River. Rule 203(f) of the Water Regulations sets a boron limitation of 1.0 mg/l. Petitioner states that a 12 month average of samples taken from the ash lagoon outfall averaged 0.693 ppm. Nine out of the 23 samples exceeded the standard, the highest being 1.70 ppm.

In PCB 74-423 the Board granted Petitioner variance from Rule 203(f)'s boron standard while undertaking a research project on boron removal. This variance expired on June 1, 1975. Two methods were finally suggested. The first concerned dry ash collection at an estimated cost of \$1,500,000 to \$2,500,000. Illinois has excluded this method as too costly. The second method consists of installing a boron selective resin, ion exchange membrane in the ash lagoon. Illinois estimates this cost to be approximately \$915,000.

Petitioner has suggested the control of boron discharge through routing the effluent to the Mississippi. Route "A" would pass through the "borrow pit" area to the Shields Branch which runs through twin culverts known as the Twin 60's. However, during flood times the Twin 60's are closed creating a back up area of 7200 feet. An additional discharge into this area of as much as 5.33 MGD would aggravate existing environmental problems. In addition this route would not result in compliance as Rule 203(f) would still apply. Therefore the Board rejects alternate route "A" as a viable means of compliance. See EPA v. Alton Box Company et al, PCB 73-61 and 74-51.

Petitioner has also suggested alternate Routes "B" and "C". Route "B" requires a sump, pumps, a levee crossing and a pipeline along the levee to the Mississippi River at a cost of \$349,000. Route "C" requires a graded open trench in an abandoned portion of the existing ash lagoon, a sump, pumps, levee crossing, and pipe to the Mississippi River at a cost of \$336,000.

In its September 15, 1975, amendment, Petitioner states that its existing ash lagoon is becoming too full to provide adequate storage capacity and retention time for the remaining life of the power plant. Illinois will construct an additional lagoon in the "borrow pit" area. Engineering and design work for the new lagoon will be complete within one year. When the new lagoon is finished, Petitioner suggests that there are three "obvious" discharge routes from the lagoon. The first is the same as alternate route "A"; the second would be over or under the new highway being built along the Mississippi and the levee; the third would use the existing route through the unnamed tributary of Wood River Creek. We have already rejected the first route. The third route would not result in compliance with 203(f). Therefore, the only viable route would be directly to the Mississippi unless Petitioner obtains a regulatory amendment. Petitioner states that there is another alternative, i.e., seeking a long term variance pursuant to Commonwealth Edison v. Pollution Control Board, 25 Ill. App. 3d 271, 323 NE 2d 84 (1975). The Board finds that this case does not support a long term variance. The First District Court merely states that where the rules are arbitrary or unreasonable as applied, the remedy of the variance procedure is available. Commonwealth Edison, supra at 90. This would not relieve Petitioner of its duty to provide a viable compliance plan.

In view of the foregoing, the Board will grant Illinois a limited variance from Rule 203(f). Petitioner must submit a final, corporate approved, compliance plan specifying the route to the Mississippi which Petitioner will utilize to comply with 203(f) by March 15, 1976. Illinois is also free to seek a regulatory amendment.

Illinois seeks variance from Rule 408 of the Water Regulations as it applies to TSS. Petitioner will construct berms within the existing ash lagoon to temporarily increase retention time thereby decreasing the TSS. Permanent compliance will result from the construction of the new ash lagoon. Petitioner seeks this variance for six months and the Board finds that its compliance plan is adequate.

Illinois also seeks variance from Rule 408 of the Water Regulations as it applies to pH. However, Petitioner states that it does not know the cause of the pH problem and has provided no compliance plan. Therefore, the Board must reject Illinois' petition as it relates to pH.

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

ORDER

It is the Order of the Pollution Control Board that:

1. Illinois Power be and is hereby, granted variance from Rule 203(f) as it pertains to boron of the Water Regulations from June 1, 1975, until March 15, 1976, subject to the following conditions:

a. That Petitioner provide a time schedule for bringing the facility into compliance and a detailed description of the corporate approved program to be undertaken to achieve compliance by March 15, 1976;

b. That Petitioner prepare a feasibility report, including costs, of directing its effluent from the new ash lagoon directly to the Mississippi River;

c. That the discharge not exceed 1.6 mg/l of boron in any 24 hour composite sample;

d. That no effluent from the ash lagoons be allowed to enter the Shields' Branch impoundment area;


e. That a feasibility report or alternative means of disposal of the fly ash including dry storage of all ash be submitted to the Agency within 90 days.

2. Illinois Power is hereby granted variance from Rule 408 of the Water Regulations as it applies to total suspended solids from September 15, 1975 until March 15, 1976.

3. Illinois Power be and is, hereby, denied variance from Rule 408 of Chapter 3 as it applies to pH, without prejudice.

Mr. Young abstains.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 14<sup>th</sup> day of January, 1975 by a vote of 3-0.

  
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Christan L. Moffett, Clerk  
Illinois Pollution Control Board