ILLINOIS POLLUTION CONTROL BOARD
July 25, 1974

COMMONWEALTH EDISON COMPANY PETITIONER	)	
v.	)	PCB 74-182
ENVIRONMENTAL PROTECTION AGENCY RESPONDENT	)	

MR. MARK VIRSHBO, ATTORNEY, of ISHAM, LINCOLN & BEALE in behalf of COMMONWEALTH EDISON COMPANY
MR. JAMES S. SCHLIFKE, ASSISTANT ATTORNEY GENERAL, in behalf of the ENVIRONMENTAL PROTECTION AGENCY

OPINION AND ORDER OF THE BOARD (by Mr. Marder)

This action involves a request for variance filed May 17, 1974. Relief is sought from Rules 201 and 203 (i) of Chapter 3, Water Pollution Regulations of Illinois, until October 15, 1974, as they pertain to Edison's discharges from the Dresden Generating Plant. Petitioner alleges that due to delays in construction and delivery of essential materials the compliance plan detailed in PCB 73-359 will be delayed two months.

Commonwealth Edison owns and operates, in Grundy County, Illinois, a three-unit nuclear powered generating station. Unit One was made operable in 1960 and has a capacity of 200 mw. Units Two and Three came on stream in 1970 and 1971 with rated capacity of 809 mw each. Petitioner's need for variance centers around thermal pollution resulting from the discharge of cooling water into the Illinois River. Presently cooling water for Unit #1 is pulled from the Kankakee River and after once through cooling of the reactor core is discharged to the Illinois River. Cooling water for the #2 and #3 reactors is presently discharging to an open-cycle cooling lake of 1300 acres. Overflow from this lake is discharged to the Illinois River.

Petitioner has incorporated the record in PCB 73-359, and uses the record generated therein as a basis for fulfilling the dictates of the Board's Procedural Rule 401. The Agency filed its recommendation on June 24, 1974, recommending a grant of variance subject to certain conditions. This action is in actuality a continuance of variances granted in the following cases: PCB 70-21, PCB 72-350, and PCB 73-359. A brief description of the events leading up to the instant case would be in order and is as follows.

1. On March 3, 1971, the Board in PCB 70-21 issued a permit to Commonwealth Edison to operate Unit #3. In granting said permit a number of conditions were imposed, e.g.:

> "3 (b) The permittee shall within thirty days after the issuance of this permit submit to the Board a written program with a time schedule for controlling the liquid radioactive discharges up to the amounts set forth in paragraph 3 (A) of this permit from Dresden Unit III without the use of dilution water."
>
> "5 (b) Permittee in the operation of Dresden Unit 3 shall comply with the thermal discharge requirements of SWB-8* as interpreted in the opinion of the Board. In order to assume such compliance, Permittee shall submit the following information to the Board within thirty (30) days from this date."

2. On April 13, 1971, Petitioner filed the abovementioned reports, and also a request for time (PCB 70-21) to allow completion of their proposed plans. In the Board's order of NOvember 23, 1971, it was noted that Petitioner had put into operation a cooling lake for Unit #2 and #3. It had also installed 98 spray modules in the canals. The Board ordered Petitioner to begin installation of a "Maximum recycle system" for radioactive wastes to be completed by September 1, 1973. The radioactive liquid waste limit of 80,000 microcurries per second would then apply to the blowdown from this cooling lake.

The Board further granted a variance from SWB-8 until November 23, 1973. The abovementioned lake and spray modules were found not to comply with SWB-8 and thus the need for this variance. A compliance plan called for the installation of a diffuser pipe to meet the required 5°F. maximum temperature rise.

3. On August 23, 1972, Commonwealth Edison filed a petition for variance extension (PCB 72-350). By an interim Board order of October 10, 1972, a sixty-day extension was granted in order to gain time to conduct public hearings and also protect Petitioner from prosecution during the interim period (Nov. 23, 1972-Jan. 22, 1973). PCB 72-350 went to hearings to determine the facts. Petitioner claimed that the original wastewater system scheduled for completion by September 1, 1973, could not be completed before February 1, 1974. The diffuser pipe was not installed and no data on the barrier effect of such a pipe on fish was elicited. By Board order of March 29, 1973, variance was granted from 201 and 203 (i) until November 23, 1973.

4. On August 22, 1973, PCB 73-359 was filed, asking for extension to November 23, 1974, or such shorter time as needed to complete the aforementioned compliance plan. On November 13, 1973, Petitioner filed for and was granted an interim variance until January 22, 1974. On January 17, 1974, the Board extended variance until August 15, 1974. In PCB 73-359 the Board also ruled that a slot jet discharge pipe may be used to conform with the Board's interpretation of mixing zones as they

*SWB-8 was superseded in part by Rules 201 and 203 (i) of Chapter 3 on March 7, 1972 (PCB R71-14).

apply to Edison's discharge, and that monthly reports would be required.

5. On May 17, 1974, PCB 74-182 (the instant case) was filed, seeking an additional 60-day extension of variance.

This chronology brings up to date the events since the startup of Dresden #3.

Petitioner alleges that a short delay in completion of their maximum recycle system for liquid radioactive wastes was anticipated in the testimony elicited during PCB 73-359. The following excerpt is used to substantiate this fact.

> "It must be understood that the same high standards of quality assurance must still be met for the remaining period of manufacture, and no one can guarantee that there won't be some additional delay." (Tr. 73-359, Pg. 48)

Edison now contends that due to quality assurance requirements relating to the two concentrators (the principal component of the maximum recycle system), delivery has been delayed as much as five months.

Petitioner alleges that the maximum recycle system should be operating with one concentrator by August 15, 1974. This will allow closed loop operation of the Dresden plant. The second concentrator is expected on site during August 1974. Although the facility can operate with one concentrator, the backup capacity of the second concentrator will not be available until October 1974. Edison proposes to operate closedloop unless the first concentrator fails. Thus in reality this variance request is for permission to operate under malfunction conditions. It is therefore impossible to judge whether such operation will consist of 60 days or no days. In deciding this case the Board will work on the premise of the worst possible case - or 60-day open loop operation.

In assessing the merits of Petitioner's case the Board relies heavily on documentation elicited during PCB 73-359. The reader is directed to our Opinion in this matter dated January 17, 1974, for a detailed description of hardship and environmental impact.

The subject of environmental impact was covered in detail in 73-359. The Board finds no reason to alter its conclusion:

> "From all the above the Board finds the weight of the evidence is that no significant environmental harm has occurred due to Dresden's Units 2 and 3. It is also important to note that the proposed slot jet discharge should yield even better mixing in the near future." (Opinion 73-359 Pg. 7)

The addition of a 60-day variance should, in the Board's opinion, not alter the validity of the above statement.

The subject of hardship must, of course, be updated to reflect the latest facts. Edison rests its hardship case on the need by Edison and the public for the output of the Dresden plant. Petitioner alleges that the highest anticipated peak load demand during the summer of 1974 will be 14,050 mw. Petitioner further alleges that after deductions for peaking loads, firm purchases, diversity interchanges, derating due to low sulphur coal, and maintenance, the aggregate system capacity of 16,755 mw will be reduced to 14,933 mw. Therefore Petitioner concludes that the 1800 mw generation capacity will be required to maintain a safety margin in the system to protect against any forced outages. Petitioner then details its loading requirements and expected outages during the months of September and October, reaching similar conclusions that the Dresden capacity is needed to secure an adequate safety margin.

The Board has difficulty in agreeing with Edison's rationale in subtracting peaking capacity from its total system capacity. It would seem that peaking capacity is just that - a reserve generation load to meet short-term excessive demands. The rationale of exempting firm purchases from the total available capacity also escapes this Board. If such purchases are firm, they should be available.

Notwithstanding the above seeming inconsistencies, the Board sees little value in denying this variance. It is for a short time duration, and as mentioned above should have little impact on the environment. The Board will thus grant the variance request.

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

ORDER

IT IS THE ORDER of the Pollution Control Board that Commonwealth Edison Company is granted variance from Rules 201 and 203 (i) of Chapter 3 as they apply to the discharge from the Dresden plant until October 15, 1974, subject to the following conditions:

1. Petitioner shall continue to file monthly operating reports as described in Order #4 of PCB 73-359.
2. Petitioner shall by August 15, 1974, have operable a cooling water discharge system which will meet the mixing zone criteria as outlined in PCB 73-359.
3. This variance shall apply only in the event that the system in condition 2 becomes inoperable.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted by the Board on the 25th day of July, 1974, by a vote of 5 to 0.

Christan L. Moffett