

ILLINOIS POLLUTION CONTROL BOARD
December 20, 1984

COMMONWEALTH EDISON COMPANY,)
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 Petitioner,)
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 v.)
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ENVIRONMENTAL PROTECTION AGENCY,)
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)
 Respondent.)

PCB 84-33

OPINION AND ORDER OF THE BOARD (By J. Theodore Meyer):

This matter comes before the Board on a Petition for Variance filed by Commonwealth Edison Company (Commonwealth) on March 21, 1984, which was amended on April 27 pursuant to a Board Order of April 5, 1984 requesting additional information. Within twenty-one days of notice of the Petition being published, written objections were received by the Board from three citizens. Pursuant to Section 37 of the Environmental Protection Act (Act), hearing was authorized on May 29, 1984. The Illinois Environmental Protection Agency's (Agency) Recommendation was filed on June 3, 1984. Petitioner twice waived the ninety day decision period; decision on this matter is now due on or before December 26, 1984. Hearing was held on November 14, 1984, where only one member of the public in addition to the parties in this matter, was present.

Petitioner is seeking variance from Sections 302.211(e) and 302.211(f) of the Board's water pollution regulations contained in 35 Ill. Adm. Code: Subtitle c. Section 302.211(e) sets out the maximum allowable water temperatures for representative locations on the receiving river. These general use temperature standards are applicable to the lower portion of the Des Plaines River, commonly known as the Five Mile Stretch. Petitioner's Joliet Generating Station (Joliet Station) is located seven miles upstream and has two discharges into the river. Prior to codification these thermal standards were found in Rule 203(i)(4) and were known as the "other water" standards. Although the standards were adopted in 1973, they did not take effect until 1978. When adopting the limits, the Board believed that the water quality would be sufficiently improved, so that temperatures would be a relevant and limiting factor.

Petitioner acknowledges that there has been some improvement in water quality in the Five Mile Stretch. Commonwealth's own monitoring studies show improvement in water quality. Specifically, there has been a substantial reduction in ammonia concentra-

tions over the last three years, and that the diversity and abundance of fish in this stretch have increased (Appendix 3). Petitioner also acknowledges that the general use thermal standard was exceeded in 1983, although there were no exceedances in 1982 (Appendix 2, R. 16).

In order to comply, Commonwealth would have to either derate the units at the Joliet Station or install a closed cycle cooling system utilizing cooling towers, spray canals or cooling ponds. The latter two cooling systems are not available due to space limitations. Natural or mechanical draft cooling towers pose economical, technical, and possible environmental problems. In 1975, tower installation was estimated at \$21,750,000. The resulting increased auxiliary power and decreased efficiency would reduce the generating capability by 2.5 to 3 percent. Environmentally, the towers would reduce the downstream flow to the Des Plaines River, which could cause increased concentration of chemical contaminants. Furthermore, a 1980 study indicated that the operation of the towers may also cause fogging along U.S. Route 6, Interstate Route 80 and in the Village of Rockdale. Finally, derating could result in a loss in generation of 153,000 megawatt hours per year, with direct economic costs of \$1.5 million per year.

Petitioner also seeks variance from Section 302.211(f), which requires a showing that a plant's discharge has not caused and cannot reasonably be expected to cause significant ecological damage to the environment. Petitioner argues that that showing has been made in each of two prior variance proceedings. In the alternative to a finding that Section 302.211(f) has been satisfied, Petitioner requests the variance so that it may be allowed to make that showing formally and in compliance with the Board's procedural rules after the water quality of the river is improved to the extent that temperature is a limiting factor.

Finally, Petitioner believes that the information gathered since 1972 on temperature, physical and biological characteristics on the Five Mile Stretch and used to develop its studies, demonstrates that the temperature of its discharges is not a limiting factor upon the aquatic ecology of the lower Des Plaines River. This belief will either be verified or modified during the revisions of the water quality standards for the Stream Segment which includes the Five Mile Stretch. With its Recommendation, the Agency does not disagree with any of the facts or allegations contained in the Petition. The Agency recommends that based on this, variance should be granted for three years. The citizen participant at hearing likewise does not object to variance being granted (R. 55).

Twice before Commonwealth has sought and received similar variances. The first was granted by the Board on May 25, 1978 until April 2, 1981 (30 PCB 315); the second on June 10, 1981 until July 1, 1984 (42 PCB 55). The facts and circumstances have

changed little. Although the water quality has improved, it has not yet changed to the extent that the Petitioner's thermal discharges are a limiting factor. The Board finds that it would be arbitrary and unreasonable at this time to require Commonwealth to comply with the thermal limitations contained in Section 302.211(e) given the high cost of compliance in relation to the expected environmental benefit. Likewise, it would be unreasonable for Commonwealth to engage in a thermal demonstration pursuant to Section 302.211(f) at this time. As stated in the Board's last order granting variance to Commonwealth, "...the results would not be completely reliable since the major pollution problems in the lower Des Plaines River are other than thermal ones." (42 PCB 55, at 57). Variance from Sections 302.211(e) and (f) is hereby granted for the Joliet Station for three years.

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 Commonwealth Edison be granted variance from July 1, 1984 until July 1, 1987 for its Joliet Generating Station from the requirements of 35 Ill. Adm. Code 302.211(e) and 302.211(f) subject to the following conditions:

1. Commonwealth Edison Company shall submit annual thermal monitoring reports to the Illinois Environmental Protection Agency.
2. Within forty-five days of the date of this Order, Petitioner shall execute and forward to the Illinois Environmental Protection Agency, Water Pollution Control Section, 2200 Churchill Road, Springfield, Illinois 62706, a Certificate of Acceptance and agreement to be bound to all terms and conditions of this variance. This forty-five day period shall be held in abeyance for any period during which this matter is appealed. The form of the certificate shall be as follows:

CERTIFICATE

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 84-33 dated _____, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner


By: Authorized Agent

Title

Date

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board hereby certify that the above Opinion and Order was adopted on the 20th day of December, 1984 by a vote of 5-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board