

variance as requested, subject to the condition that petitioner submit progress reports to the Agency every two months.

On October 10, 1972, we entered an Order extending the variance to January 22, 1973 and specified therein, certain matters which we wanted to have developed in the hearing record as follows: the extent of the need for Dresden power in view of the recent Quad-Cities plant startup; the degree of improved water quality in this reach of the Illinois River as a result of improved treatment upstream by both the GAF Corporation and the Metropolitan Sanitary District of Greater Chicago; and the degree to which the river diffuser acts as a barrier to the passage of fish.

An amended petition was filed on December 8, 1972 setting forth, in substance, as follows: That the variance originally granted was in contemplation of Edison constructing a maximum recycle, liquid radioactive waste treatment facility, which would allow closed cycle operation of the Dresden cooling lake and spray canal system; that the present petition was filed pursuant to the terms of the original order and that petitioner incorporates in its present petition all matters previously included in the record with respect to the nature of its business, the estimate of contaminants discharged; the equipment involved and the time schedule to achieve compliance. The petition goes on to state that a more complex waste treatment facility is to be installed than originally contemplated which will not be completed until February 1, 1974.

The basic premise of petitioner's variance request is that the continuing capacity of the Dresden station will be needed until completion of the treatment facility in order to enable Edison to complete required maintenance on other generator units in its system in order that system capacity will continue to meet customer demand. Petitioner alleges that the continued open cycle operation of the Dresden station discharge from November 23, 1972 until completion of the treatment facility will not adversely affect present water quality of the Illinois River and that the harm which would result from Edison's inability to continue to perform needed maintenance on other generating units in its system, would far outweigh any potential injury to the Illinois River.

The amended petition seeks a variance of the relevant sections until April 1, 1974. Hearing was held on the petition. While petitioner has not installed its diffuser and accordingly does not indicate how such diffuser would act as a barrier to the passage of fish, we feel that in all other respects, Edison has substantiated the basis on which a variance should be extended and has likewise responded to the questions previously posed to it in our earlier Order. However, in order to enable the Board to make an additional examination before the expiration of the current calendar year, we do not extend the variance for the time sought by the amended petition, but only to

November 23, 1973 as sought in the original petition. Any additional extension may be sought by resort to the procedures heretofore employed.

The record supports the allegations that the closed cycle cooling lake and related facilities are in the process of implementation and achievement of the February 1, 1974 date for completion appears likely. New standards of the AEC require the modification of plans with respect to the close cycle cooling lake in order to comply with these standards. Upgrading of the treatment system to meet radioactive levels of effluent necessitates this modification.

Dr. William W. Sayre (R.22) stated that during the 13 month period between October, 1971 through October, 1972, calculated ambient temperatures exceeding the 5°F. departure from the standard "probably" occurred only on 6 days and "possibly" occurred on 61 days. Taking all 6 probable excess days together, the amount by which temperatures at the edge of a mixing zone exceeded the permitted maximum of 5° F. over ambient ranged from 0.2°F. to 2.6°F. As to the 61 days in the possible excess category, the amount by which the temperature at the edge of the mixing zone exceeded the permitted maximum, would, on the same basis, be no more than 1.7°F.

Dr. Byron G. Johnson testified (R.105) on behalf of petitioner to the effect that the thermal input, even including the excess above noted, would not have an adverse effect on the fish population in the vicinity of the Dresden station.

Lastly, the testimony of Richard W. Maatz (R.180) supports petitioner's contention that operation of the Dresden station up to its full capacity is necessary to meet the projected summer 1973 peak load. Petitioner's estimated peak load for summer, 1973 is 12,810 mw which is a 6.8% increase over the peak load for summer, 1972. The planned total capacity for summer, 1973 is 14,796 mw, which includes Dresden's station of 1,800 mw. This leaves a plant reserve of 1,986 mw or 15.6%, but also assumes the availability of Zion Unit #1 capacity in the amount of 935 mw, which is not presently available in that quantity. Furthermore, outages and other limitations in use could reduce actual reserve for summer, 1973, to as little as 613 mw or 4.9%, which would be inadequate to protect against the sudden loss of a major unit.

In addition, as brought out by witness Robert J. Engle (R. 191) monthly limitations and forced outages require the availability of the Dresden station in order to perform maintenance on other generating units during non-peak periods until completion of the closed cycle cooling lake.

We feel that the factors justifying the original grant of variance continue to the present date. The burden on the public in being denied the availability of the Dresden units during both peak and non-peak periods is far greater than any damage to the environment that might result from the temperature excursions contemplated by the continuing operation of the facility until completion of the closed cycle cooling lake.

Mr. Dumelle dissents.

I, Christan Moffett, Clerk of the Pollution Control Board, certify that the above Opinion was adopted on the 31st day of May, 1973, by a vote of 3 to 1.

Christan Moffett