

ILLINOIS POLLUTION CONTROL BOARD
January 26, 1984

CENTRAL ILLINOIS PUBLIC SERVICE)
COMPANY (NEWTON POWER STATION)
UNIT #1),)
)
Petitioner,)
)
v.) PCB 83-84
)
ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
)
Respondent.)

MR. T. KENT COCHRAN, SORLING, NORTHRUP, HANNA, CULLEN &
COCHRAN, APPEARED ON BEHALF OF PETITIONER;

MR. DAVID RIESER, ATTORNEY AT LAW, APPEARED ON BEHALF OF THE
RESPONDENT.

OPINION AND ORDER OF THE BOARD (By J.D. Dumelle):

This matter comes before the Board upon a July 5, 1983 petition for hearing pursuant to 35 Ill. Adm. Code 302.211(f) filed on behalf of the Central Illinois Public Service Company (CIPS). The Illinois Environmental Protection Agency (Agency) filed a recommendation that the Board rule in favor of CIPS on September 9, 1983. Hearing was held on November 2, 1983. CIPS filed its brief on November 22, 1983 to which the Agency responded on December 8, 1983.

In September, 1977 CIPS commenced commercial operation of Unit No. 1 at the Newton Power Station in Jasper County. Condenser cooling water generated from that unit is discharged into Newton Lake, a man-made lake constructed by CIPS, which also serves as the source of cooling water. Section 302.211(f) requires CIPS to demonstrate that the heated effluent discharged from Newton Unit No. 1 has not caused and cannot be reasonably expected to cause significant ecological damage to the receiving waters, Newton Lake. In order to make this demonstration, CIPS has compiled data prior and subsequent to the commencement of Unit No. 1 operations including its own investigations, Illinois Department of Conservation surveys and outside consultant evaluations. The majority of the pre-1979 data has been previously submitted to the Board through the proceeding under Section 302.211(j) which

established specific thermal standards for Newton Lake (Central Illinois Public Service Company v. Illinois Environmental Protection Agency, PCB No. 78-271, 39 PCB 342, August 21, 1980).

The Agency states that a thorough review of the information presented by CIPS was conducted by personnel from the Standards Unit, the Lakes Program and the Ambient Monitoring Unit in Marion. The Agency concluded that due to the recent initiation of Unit No. 2 operations "there could be no final determination of the impact of Newton Power Station on the ecology of Newton Lake. However, it was concluded that CIPS, is correct in stating that the operation of Unit No. 1 has not caused and can not reasonably be expected to cause significant ecological damage to Newton Lake" (Agency Rec. p.1).

The Agency based its conclusions on an examination of four major trophic levels: phytoplankton, zooplankton, macroinvertebrates and fishes. It also considered temperature and dissolved oxygen profiles of Newton Lake.

The only witness at hearing was Deborah Bruce, a biologist for CIPS, who testified that "Newton Lake supports a healthy and diverse fish community that's typical of Illinois impoundments and does not exhibit any significant environmental stress" (R. 13). That conclusion was based upon species diversity and fish abundance, condition, growth rate and population structures (R. 14). She stated that "Newton Lake has a similar diversity" to Coffeen Lake, Lake Sangchris and Lake Shelbyville and that biomass estimates for sport fish are greater in Lake Newton than the other lakes based upon the data in Exhibits 7-9 and 11-12 (R. 16-19). She went on to testify that the overall growth rate, reproductive capacity and condition of the fish in Newton Lake is similar to or better than the other lakes and that Newton Lake "is a viable fishery and ... very healthy and diverse" (R. 20-22).

Bruce also testified regarding wildlife and recreation around Newton Lake. Based upon an Illinois Natural History Survey, a Department of Conservation publication entitled "Outdoor Highlights" and visual observations, she concluded that there is a "tremendous number of migratory waterfowl," that 240 acres on the east side of the Lake have been leased to DOC for prairie chicken management, and that Newton Lake is one of the best fishing lakes in the State (R. 22-25 and Ex. 10).

Finally, she concluded that "provided that the load factors do not change, there shouldn't be ... any significant

ecological damage" and that no such changes are anticipated (R. 26).

As noted above, the Agency does not disagree with that conclusion, although it does point out some concerns. It notes that the dominance of the phytoplankton population during summer and fall by blue-green algae and periodically lower density and diversity of phytoplankton, macroinvertebrates and fishes in the warm water arm of the lake indicate some ecological stress due to the thermal discharges, but also notes that "other conditions such as the overall abundant and diverse phytoplankton and zooplankton populations, stability of the macroinvertebrate community and ... healthy and diverse fisheries" indicate the absence of severe ecological stress (Agency Rec. p.2, Exs. 7 and 8). Further, the high water temperatures combined with conditions of anoxia (less than 4 mg/l dissolved oxygen) raises some Agency concern (Agency Rec. p.2 and Ex. 4), but that such conditions are "typical of lakes exhibiting summer thermal stratification, and CIPS has provided an adequate demonstration that, under Unit No. 1 operation, suitable temperatures were available to the fish population" (Agency Rec. p.2).

The only two potential problems noted by the Agency concerning the operation of Unit No. 1 are a potential for non-compliance with 35 Ill. Adm. Code 302.211(j)(1) and the "failure of stocking efforts to establish a walleye sport fishery in Newton Lake" (Agency Rec. p.3). However, the Agency does not find these potential problems to be ecologically significant, and the Board agrees.

The Board therefore finds that Unit No. 1 of the Newton Power Plant has not caused and cannot reasonably be expected to cause significant ecological damage.

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

ORDER

Central Illinois Public Service Company has demonstrated pursuant to 35 Ill. Adm. Code 302.211(f) that discharges from its Newton Power Station Unit No. 1 have not caused and cannot be reasonably expected to cause significant ecological damage to the receiving waters.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 26th day of January, 1984 by a vote of 7-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board