

ILLINOIS POLLUTION CONTROL BOARD  
July 22, 1976

ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 Complainant, )  
 )  
 v. ) PCB 75-387  
 )  
 CENTRAL ILLINOIS LIGHT COMPANY, )  
 )  
 Respondent. )

Mr. Fredric Benson and Mr. Robert Reiland, Assistant Attorneys General, appeared for the Complainant;  
Mr. Randall W. Moon, Attorney, appeared for the Respondent.

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

The Environmental Protection Agency (Agency) filed the Complaint in this matter on October 9, 1975, alleging that Respondent Central Illinois Light Company (CILCO) violated Section 12(b) of the Environmental Protection Act (Act) and Rule 951 of this Board's Water Pollution Regulations by commencing construction of an electric power station without having received a construction permit from the Agency. The Board denied CILCO's Motion to Dismiss in an Interim Order entered on November 26, 1975, and a hearing was held at the Fulton County Courthouse on April 8, 1976. No public comment has been received in the matter.

The basic facts in this case are largely uncontested, and were the subject of an oral fact stipulation agreed to at the April 8, 1976 hearing, (R. 4-11). Without repeating the stipulation entirely, the essential facts are as follows:

1. On March 13, 1972, CILCO began construction of a steam-electric generating station in Fulton County, Illinois.
2. To provide condenser cooling water for that station, CILCO at the same time began construction of a cooling water reservoir by damming Duck Creek which has the following characteristics:
  - a. watershed: 9,920 acres, with average annual precipitation of 34.84 inches.
  - b. estimated 7-day 10-year low flow: zero.
  - c. 100-year flood flow: 5,000 cubic feet per second (cfs).

3. The resulting reservoir will have the following characteristics:

- a. minimum operating level of operation:  
526 feet (volume 13,500 acre feet).
- b. estimated final elevation (full): 565 feet  
(volume 57,000 acre feet).

4. No construction permit has ever been issued by the Agency for the power station with regard to its discharges into the reservoir. (Emphasis added.)

Additional testimony at hearing indicated the following:

1. At its ultimate level, CILCO's reservoir will cover 1,740 acres, (R. 76), of the Duck Creek watershed's 9,920 acres.

2. Prior to the dam's construction, average annual flow at the dam site was approximately 8.9 cfs (R. 77), according to CILCO.

3. Duck Creek has a channel approximately 6 feet deep and 20 feet wide, (R. 27), although the entire channel would rarely be filled, (R. 110).

4. Upon the planned ultimate development of 2,000 megawatts electrical generating capacity, 10,470 acre feet of water will be provided to the reservoir each year from natural sources, including runoff and rainfall; 17,490 additional acre feet will be provided annually by pumpage from the nearby Illinois River, (R. 80).

On these facts, the issue to be decided is whether CILCO's reservoir, constructed by damming Duck Creek, constitutes an "artificial cooling lake" or a "perched lake." If it is an artificial cooling lake, the reservoir is a protected water of the state, subject to the applicable effluent and water quality standards set by this Board, and discharges into it from the power station would be subject to various permit requirements. If it is a perched lake, the reservoir would be considered a treatment works for the power station's thermal effluent, and would be exempt from those standards. CILCO is charged with failure to obtain the construction permits necessary for a waste-water source which will discharge to a protected water of the state.

This issue is not new to the Board. In R75-2, In the Matter of Water Quality and Effluent Standards Amendments, Cooling Lakes (Order, August 14, 1975) (Opinion, September 29, 1975), the Board addressed the problem with the following language:

The Board has ... considered the question of thermal effluents in a series of cases relating to individual dischargers; several of these cases directly concern the questions at hand: steam-electric generating stations and their attendant cooling impoundments. In the most relevant of these cases, the Board determined that such impoundments, constructed to provide condenser cooling for power plants, fall into two categories: (1) treatment works, and (2) protected waters of the state. The distinction is of sufficient importance to have led to our considerations here.

The distinction, in summary, is based upon the way a cooling-water impoundment is constructed. Where artificial diking is erected, and water to fill the resulting enclosure is largely obtained by withdrawal from a nearby natural body of water such as a lake or river, the enclosure constitutes a treatment works. Commonly known as "perched" or "side-channel" lakes, these bodies of water are, as treatment works, exempt from the Board's water quality standards, and discharges into them are not subject to the thermal effluent standards.

The other type of impoundment, an "artificial cooling lake," encompasses the remaining field of cooling water enclosures at issue here. Generally formed by damming an existing watercourse which is itself a protected water of the state, such artificial cooling lakes remain subject to the Board's water quality and effluent standards. [Footnotes omitted.] R75-2, supra, Opinion at 3, 4.

The Board also defined the term "artificial cooling lake" in the Regulation itself, passed on August 14, 1975:

Rule 104, Definitions;

. . .

"Artificial Cooling Lake" means any manmade lake, reservoir or other impoundment, constructed by damming the flow of a stream, which is used to cool the water discharged from the condensers of a steam-electric generating plant for recirculation in substantial part to the condensers."

CILCO's argument, that its reservoir falls into the category of "perched lake," relies principally on a footnote in the Cooling Lakes Opinion, stating that "[n]atural land contours may form part of the impoundment, such that some runoff . . . enters these lakes." CILCO notes that the dam erected to impound Duck Creek is itself "diking," and that the "water to fill the resulting enclosure is largely obtained by withdrawal from a nearby natural body of water such as a lake or river. . . ." R75-2, supra, note 4. As noted,

in normal years with the station operating, approximately 62% of the reservoir's volume will come from the Illinois River.

CILCO also attempted to show that Duck Creek was not actually a stream, being instead merely a conduit for runoff, (R. 108), and that a large portion of the Duck Creek watershed would be inundated by the new reservoir, leaving little of the original "conduit."

None of these arguments are convincing. The situation here is closely analogous to our prior decisions on the cooling lakes issue, and none of the facts alleged or shown by CILCO are sufficient to alter the outcome of an analysis similar to that used in the prior cases. Despite CILCO's attempts to characterize it otherwise, Duck Creek was a protected water of the state, and it remains one.

In a case concerning Clear Creek and Commonwealth Edison's Kincaid generating station, the Board found that despite the intermittent nature of Clear Creek (63 days per annum expected zero flow), it could not "allow a person to change the character of a protected water by simply damming it up and thusly claiming it is no longer protected." Citizens for a Better Environment v. Commonwealth Edison, PCB 73-245, 73-248 (Consolidated), 13 PCB 69, 78 (1974). A similar decision was reached with regard to the Central Illinois Public Service Company's Lake Coffeen. Central Illinois Public Service Co. v. EPA, PCB 73-384, 11 PCB 677 (1974), rehearing denied with Opinion, 12 PCB 361 (1974), aff'd., Ill. App. 3d \_\_\_\_\_, 344 N.E.2d 229 (Fifth Dist., Feb. 2, 1976) rehearing denied with Supplemental Opinion (March 25, 1976).

Although CILCO showed that strip mining had somewhat altered its watershed, and that portions of the stream had been channelized downstream of the new dam, Duck Creek was a natural, protected water of the state. Inundation of much of the Creek's former bed and watershed cannot alter this finding, and CILCO's attempts to raise such a distinction are inappropriate here.

Likewise, we are not impressed with CILCO's contentions concerning the source of water for the new reservoir. The fact that 62% of the water will normally be pumped into the reservoir from the Illinois River is largely a result of operations at the new power station, which will apparently increase evaporation considerably above a natural rate, (R. 80, 87, 92). In the absence of pumpage from the Illinois River, and in the absence of power station operations, the lake created by damming Duck Creek would merely fill more slowly, and would remain a protected water of the state. The addition of water from an outside source, needed as a result of station operations, cannot in this case change that result.

CILCO's reservoir is an artificial cooling lake, and a protected water of the state. Its new power station constitutes a wastewater source within the meaning of our Regulations. The power station is therefore subject to the construction permit requirement.

CILCO has stipulated that it would have been technologically feasible and economically reasonable to apply for the requisite construction permits, (R. 8). Other stipulated facts show that by providing electric power and employment, CILCO's new power station will have considerable social and economic value, (R. 7,8). The surrounding area being largely strip mined land, (R. 7), the suitability of the power station to the area is not a significant issue, except to the extent that the station may be a beneficial use of otherwise blighted, unusable land properly zoned for CILCO's use.

The character and degree of the injury here are more difficult to weigh on the record before us. The Board has consistently held that the permit system is necessary to the protection of the environment as an integral part of the Act's general protective scheme. Failure to comply with the permit requirements of the Act, as detailed in our Regulations, poses the threat of considerable potential damage to the environment, both in the individual instance of such failure and by weakening the permit system generally. That threat exists even where, as here, there has been no specific showing of particular environmental damage. As a consequence, the Board has generally found that violation of the permit requirement demands the imposition of a penalty under the Act. This is especially true with so large a potential source of pollution as Respondent's power station.

There are, however, some matters mitigating this violation. Although it is not mitigation, as CILCO claims, that construction here began before the effective date of our Water Pollution Regulations, (see § 12(b) of the Act and Rule 951(b) of Chapter 3 [formerly Rule 901(b)]), the dates involved here do provide some relief for CILCO.

CILCO's statements (R. 50, 70), show without refutation that the entire Duck Creek project, both power station and artificial cooling lake, was undertaken at least in part to allow conformity with Board Regulations, and perhaps with federal regulations. CILCO apparently chose to construct what it termed a "closed cycle" cooling system at Duck Creek to avoid possible regulatory problems with the traditional "once through" cooling systems used at other power stations located near major natural rivers or lakes.

Until the Board decided PCB 73-245 and 73-248 (consolidated), and PCB 73-384, supra, it had not specifically examined the question of artificial cooling lakes. As CILCO noted, specific Regulations were not enacted on the subject until mid-1975, in R75-2, supra. We feel that prior to the decision of the Edison and CIPS adjudicatory cases, where we specifically pointed to the possibility of such Regulatory relief as was later provided in R75-2, CILCO might have been somewhat confused as to the permit requirement.

However, the failure of the Board to speak specifically on individual instances within the Board's regulatory framework of the permit system cannot excuse such violation completely; the Act and the Regulations under it were in effect, and CILCO was responsible for compliance therewith. And since the Edison and CIPS decisions, where the Board did speak specifically to the issue, no confusion can excuse CILCO's noncompliance.

On these facts and conclusions, we feel that a penalty of \$5,000 is necessary to protect the integrity of the permit system and to aid in the enforcement of the Act and our Regulations.

In addition, our Order shall require that CILCO cease and desist its violations, and acquire all necessary permits from the Agency for the new power station and artificial cooling lake.

This does not entail an immediate "shutdown" order. When stipulating to the economic and technical reasonableness of complying with the permit requirement, counsel for CILCO noted that this did not necessarily include compliance with any conditions accompanying any permit, (R. 10). Although the record is not clear on the precise temperatures of CILCO's discharges into the artificial cooling lake, CILCO has evidenced fears of being required to comply with the Board's existing effluent standards. In light of the new power station's beneficial economic value, and the fact that environmental harm may not be presently or potentially great (the station was scheduled to commence operations in June, 1976 [R. 7]), we shall grant CILCO one year within which to comply.

Such a compliance period seems warranted by the facts here, and is similar to the "combination" remedy and relief ordered in the Edison case, supra. The Board there allowed the grant of a Regulation change for Edison's artificial cooling lake as compliance with the cease and desist order. 13 PCB at 80, 81.

Since the Edison case the Board has, in R75-2, made specific provision for a Regulatory change. That CILCO was and is aware of R75-2 is patent in its Brief. Grant of a specific thermal standard under R75-2 would allow CILCO to obtain any and all necessary permits for its thermal discharges into the artificial cooling lake created by damming Duck Creek. One year should provide sufficient time for CILCO to obtain such a specific standard, if one is shown to be warranted. There of course remains the possibility of Variance relief.

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. Respondent CENTRAL ILLINOIS LIGHT COMPANY is found to have violated Section 12(b) of the Environmental Protection Act and Rule 951(a) of Chapter 3: Water Pollution, of the Pollution Control Board's Rules and Regulations by constructing a steam-electric power station without the requisite construction permit from the Environmental Protection Agency.


2. Respondent shall pay as a penalty for such violations the sum of Five Thousand Dollars (\$5,000.00), payment to be made within thirty (30) days of the date of this Order by certified check or money order to the following address:

Environmental Protection Agency  
Fiscal Services Division  
2200 Churchill Road  
Springfield, Illinois 62706

3. Respondent shall, within one year of the date of this Order, cease and desist such violations, and shall obtain all necessary permits for said steam-electric generating station from the Environmental Protection Agency.

Mr. James Young abstained.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 22<sup>nd</sup> day of July, 1976, by a vote of 4-0.

  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board