

ILLINOIS POLLUTION CONTROL BOARD

May 6, 1971

In the Matter of)
)
THERMAL STANDARDS, LAKE MICHIGAN) #R 70-2
)

Supplemental Statement by Samuel R. Aldrich, Board Member

Heat from the generation of electric power is a resource which over the long-term cannot continue to be treated as a waste product to be disposed of either in water or air. Heat requirements for space heating and industrial processes exist at the same time and often in close proximity to power generating stations. Technology for productive utilization of so-called "waste heat" is being studied but must be accelerated. Such technology will serve the dual purpose of reducing pollution and conserving important fuel resources.

As the opinion states, if all plants now projected to year 2000 (about 20 new plants) were operating and the heat were uniformly dispersed, the lake would rise 0.1°F (0.055°C). I am confident that the necessary technology to utilize by-product heat will be developed before there is any serious cumulative effect from proliferation of electric generating plants situated on Lake Michigan.

Consequently I am less alarmed than is indicated in the opinion of the Board (prepared by Mr. Currie) about the danger from power plant proliferation. As a result, I favor a 5-year moratorium rather than a complete ban on the construction of significant new heat sources.

I favor reevaluating the entire situation at the end of five years (aquatic life effects, the status of alternative cooling techniques both with respect to costs and environmental impact) and approving additional once-through cooling facilities if the facts warrant it.

While it is true that a subsequent board has the authority to follow the course that I suggest, if the electric power industry assumes the ban to be permanent, it will predicate all of its plans on that assumption. In the long-term the choice of cooling technique will likely make little economic difference to the companies. At issue is the best long-term decision for all of the people in consideration of both economic and environmental effects. The undesirable features of cooling towers are discussed in the opinion. Another alternative, cooling lakes are likely to be sited on agricultural land. Such a lake is being vigorously fought in Brookfield township, LaSalle County. Another group of citizens is attempting to prevent siting on the Mississippi River for once-through cooling. The capacity to accept heat is much less than in Lake Michigan.

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In the absence of a halt to growth in the use of electric power, which is not now a viable alternative, there is no way in which to escape environmental impact by shifting to alternative cooling techniques. We can only determine the time, place, and form of environmental impact.


I recognize that Illinois may justify a more severe restriction on the use of Lake Michigan for cooling than Wisconsin and Michigan because it has only 55 miles of shoreline much of which is already preempted for other than recreational use.

An argument put forward by some opponents of once-through cooling is that there is little additional cost for cooling towers or lakes. This is an overly simplified concept. They oppose piecemeal degradation of Lake Michigan by small inputs but ignore the aggregate economic impact of piecemeal incremental costs for environmental protection and improvement. Special interest environmentalists who press for near perfection in matters pertaining to their own interests must become aware that the cumulative effect on standard of living will be very great because other persons with different interests are adding small costs to a myriad of other processes and products including cooling towers.


 Samuel R. Aldrich, Board Member

May 6, 1971
 Date

I, Regina E. Ryan, Clerk of the Illinois Pollution Control Board certify that Dr. Samuel R. Aldrich submitted the above supplemental statement on 6 day of May 1971.


 Regina E. Ryan
 Clerk, Illinois Pollution Control Board