

ILLINOIS POLLUTION CONTROL BOARD
May 10, 1979

IN THE MATTER OF:)
)
LAKE MICHIGAN PERMIT FOR) PCB 78-114
WAUKEGAN PORT DISTRICT)

OPINION OF THE BOARD (by Mr. Dumelle):

On April 24, 1978 the Board received a permit application and an unsigned permit from the Illinois Dept. of Transportation, Division of Water Resources (DOT). The permit concerned the repair of concrete boat launching ramps and maintenance dredging by the Waukegan Port District (the District) in Waukegan Harbor. The DOT enclosed unconditional approval letters from the Army Corps of Engineers (the Corps) and the Illinois Department of Conservation. The Illinois Environmental Protection Agency had concurred in the issuance of the permit on the conditions that no water pollution be caused, nearby water supply intakes be protected, and all dredge spoil be deposited in a permitted land site. On April 27, 1978 the Board authorized the Chairman to sign the permit. On June 1, 1978 the People of the State of Illinois and the Agency advised the Board that the Agency had withdrawn its prior conditional approval and asked the Board to withdraw its concurrence or, in the alternative, hold an informational hearing on this matter. On January 4, 1979 the Board ordered a public hearing to be held to determine whether the repairs and dredging would cause water pollution as that term is defined in Section 3(n) of the Act. The hearing was held on January 31, 1979 in the Lake County Courthouse in Waukegan.

On February 15, 1979 the Board adopted an Order which stated that the Board had jurisdiction to rule on the merits of this matter and that the Board concurred in the issuance of the permit on certain conditions. This Opinion supports the Board's Order dated February 15, 1979.

Section 65 of Chapter 19 of the Illinois Revised Statutes states in part that ". . . no permit shall be issued or renewed authorizing any fill or deposit of rock, earth, sand, or other material, or any refuse matter of any kind or description in Lake Michigan except with the concurrence of the Pollution Control Board, and no such permit is valid without such concurrence." When the DOT first sent this permit application to the Board, it stated:

"Inasmuch as this work will involve dredging materials from the bed of Lake Michigan, it appears that the work would come under the provisions of State Statutes, Chapter 19, Section 65, which requires your concurrence before a permit can be issued for the work."

The Board's authority to review these permits was supplied by Public Act 76-2453 which was effective on July 1, 1970. That same public act also amended Section 61(a) of Chapter 19 to read in part as follows:

"It is the express intention of this legislation that close cooperation shall exist between the Pollution Control Board, Environmental Protection Agency, Illinois Institute for Environmental Quality, and the Department of Transportation and that every resource of state government shall be applied to the proper preservation and utilization of the waters of Lake Michigan."

Both Sections 61(a) and 65 of Chapter 19 are included under the provisions of Section 76 which states that:

"At all times this act shall be construed in a liberal manner for the purpose of preserving to the State of Illinois and the people of the State, fully and unimpaired, the rights which the State of Illinois and the people of the State of Illinois may have in any of the public waters of the State of Illinois, and to give them in connection therewith, the fullest possible enjoyment thereof, and to prevent to the fullest extent, the slightest improper encroachment or invasion upon the rights of the State of Illinois, or any of its citizens with reference thereto."

In this case the District is not seeking a permit to deposit any dredge spoil in Lake Michigan. On the contrary, the District intends to remove material which is already lying in the lakebed. This circumstance should not be viewed as a means to escape the Board's jurisdiction in this matter. Any dredging project, by its very nature, causes the suspension of particles in the water, which will migrate and eventually be deposited someplace else. Leaching of soluble deposits may be enhanced. When this is viewed in conjunction with the express intention in Section 61(a) and the mandate for liberal construction in Section 76, the Board is forced to take a broad interpretation of Section 65. The dredging which the District is trying to complete will result in a "deposit" in Lake Michigan. The Board has been given the authority to ". . . determine, define, and implement the environmental control standards applicable in the State of Illinois. . ." [Section 5(b) of the Environmental Protection Act]. The Board will use that authority here to determine whether the District will cause water pollution as that term is defined in Section 3(n) of the Environmental Protection Act.

The primary concern of all the interested parties in this case has been the threat of contamination from polychlorinated biphenyls (PCB's) if the dredging were permitted. This concern is complicated by the fact that the Board has never promulgated any water quality or effluent standard for PCB's. Consequently the Board must turn to Section 3(n) of the Act which defines water pollution as follows:

"WATER POLLUTION is such alteration of the physical, chemical, biological, or radioactive properties of any waters of the State, or such discharge of any contaminant into any waters of the State, as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare or to domestic, commercial, industrial, agricultural, recreational, or other legitimate uses, or to livestock, wild animals, birds, fish, or other aquatic life."

The District presented the results of a one day sampling program which analyzed the bottom sediments in the vicinity of the boat launching ramps. The samples showed that the top six inches of sediment contained an average of 5.3 ppm PCB's with a range from 2.7 ppm to 8.1 ppm (Ex. 5).

Exhibit 7 consists of guidance used by USEPA to classify Great Lakes harbor sediments. This guidance classifies sediments in the range of 1-10 ppm PCB's as "moderately polluted". Sediments in this range are determined by the U.S. Army Corps of Engineers to be unsuitable for open lake disposal (R.140) and must be evaluated on a case by case basis (R.142). Although these guidelines are described as "interim" and ". . . subject to revision as new information becomes available", they are valuable as USEPA's latest thinking in this area. The guidelines indicate that these sediments may be dredged as long as their ultimate disposal is closely monitored.

Dr. Thomas J. Murphy testified that PCB's which would be suspended due to dredging would associate with smaller organic particles and remain suspended for a long period of time (R.399). When these suspended particles settle, they will tend to create an abnormally high concentration at the interface with the water (R.412). Dr. Murphy testified that this dredging project would contribute to this problem, but not appreciably (R.414) if the sediments average approximately 5 ppm PCB's (R.349).

Mr. Michael T. Kobylanski, General Manager of the District, testified that the dredging project would involve removal of approximately 2700 cubic yards of sediment (R.16). This will increase depth in the vicinity of the boat ramps from four feet to nine feet (R.19,15).

Mr. Jerry Lapish, whose firm has contracted to do the dredging, testified that the area to be dredged consists of hard sand with some silt (R.297). He testified that the sediments in this area have moved in from Lake Michigan (R.306). Although some sediments travel around Waukegan Harbor (R.318), the area to be dredged was not characteristic of the rest of the harbor (R.331). He testified that the nearest sites sampled in Exhibits 12 and 13 which showed far higher levels of PCB contamination were very different in composition than the area where dredging would occur.

Mr. Howard Peskator, Superintendent of the City of Waukegan Water Utility, testified concerning use of an emergency water intake located inside the harbor in the vicinity of the boat ramps. This intake is used an average of 6 hours per year (R.272). During these periods the water filtration plant uses an activated carbon process (R.282). Exhibit 18 includes the results of analyses done by the Illinois Environmental Protection Agency during April, 1978 on finished drinking water during use of the emergency intake. Exhibit 18 indicates that no PCB contamination (less than 0.00005 ppm) was detected during this period.

Based on the above analysis the Board can make the following conclusions. The level of PCB's found in the top six inches of sediment indicate that very little contamination exists in the volume to be dredged. When these low levels are viewed in conjunction with the nature of the sediments in the area, additional core samples taken at greater depths appear to be unnecessary. The size of the dredging project and the results in Exhibit 18 indicate that although some contamination may result, it will be negligible.

Now the Board must determine what controls should be imposed on this project to minimize any contamination which could result.

Mr. David Beno stated that the U.S. Army Corps of Engineers preferred the clamshell method of dredging in this case because it knew what to expect (R.123). Mr. Lapish stated that hydraulic dredging would require use of a cutter head in the hard sand which would aggravate turbidity (R.299). Mr. Lapish felt that installation of sheet piling would be dangerous (R.308) and would upset bottom sediments (R.336). Based on this evidence the Board concludes that the clamshell method is the best alternative.

Mr. David Beno stated that a silt curtain placed around the dredging operation could decrease widespread turbidity and act as an oil boom (R.106) to contain PCB's soluble in oil (R.149). Mr. Lapish felt that a silt curtain was the best containment alternative (R.315). The Board concludes that a silt curtain should be placed around the dredging operation to contain stirred up sediments and oils released by dredging.

The Board concludes that the dredging and disposal must be completed within one year because circumstances including the scope of this project and PCB levels in the sediments could change significantly over a longer period of time.

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

Mr. Young concurs

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion was adopted on the 10th day of May, 1979 by a vote of 5-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board