

ILLINOIS POLLUTION CONTROL BOARD
February 5, 1987

IN THE MATTER OF:)
)
APPLICATION FOR LAKE MICHIGAN) PCB 86-139
PERMIT NO. 204LM FOR THE)
U.S. ARMY CORPS OF ENGINEERS,)
CHICAGO DISTRICT)

ORDER OF THE BOARD (by J.D. Dumelle):

The Board Order of December 5, 1986, approved the application of the Illinois Department of Transportation ("IDOT") for U.S. Army Corps of Engineers ("Army") Lake Michigan permit No. 204LM, to dredge the navigation channel to Waukegan Harbor, provided certain sampling and analysis conditions were met. The Chairman was authorized to countersign the permit. On December 30, 1986, the Army filed a motion for reconsideration raising questions on the wisdom and efficacy of the sampling and analysis conditions. On January 14, 1987, IDOT also moved for reconsideration based on objection to the sampling and analysis program. On January 21, 1987, the Attorney General filed comments on the motion for reconsideration, opposing changes in the sampling and analysis program. The motion for reconsideration is granted.

Procedural Objections

The Army and IDOT have objected to the imposition of conditions for testing by the Board. Both argue that the 401 certification procedure by the Illinois Environmental Protection Agency ("Agency") is the appropriate vehicle for conditions to ensure compliance.

The exact role of the Agency's 401 certification in state review of Lake Michigan fill projects has never been fully explained to the Board. Under Section 401 of the Federal Water Pollution Control Act (42 U.S.C. Section 1251, et seq.), such a certification is required prior to issuance of a federal permit by the Secretary of the Army (under Section 404 of that Act) for discharge of fill material. Under state law, IDOT may issue Lake Michigan fill permits only where they determine "that the deposit or deposition of dredge material will not cause water pollution as defined in the Environmental Protection Act" (IRS, ch. 19, par. 65). IDOT may require a 401 certification letter as part of their procedures. Whatever legal role the 401 certification letter plays in the state permitting process, there is nothing in this record to indicate what facts were before the Agency at the time it made its decision to issue the letter, nor is there information on the criteria and procedures by which the Agency determines whether or not water quality will be violated. The 401 certification letter (dated August 5, 1986) contains an

introductory paragraph briefly describing this project. The remainder of the certification is a standard form letter seen by the Board in many other cases; it states that the proposed project can be completed without causing water pollution so long as the applicant does not (condition 1a) cause violation of water quality standards, or (condition 1b) cause water pollution. Consequently, the Board cannot legally or factually rely on this letter as a reasoned judgment, based on sound criteria and adequate facts, that water pollution will not occur under the proposed project.

As expressed in the December 5, 1986, Order, the Board construes its statutory mandate from paragraph 65 of the Waterways Regulation Act, as a command "to determine whether the information in the record demonstrates that the proposed activity will not cause a violation of the Act or Board regulations or adverse environmental impact." This command requires the Board to make decisions. The fact that other agencies of government may have contemporaneous authority to issue decisions and impose conditions does not obviate the Board's statutory mandate.

Practical Objections

The Army has raised several practical objections to the sampling program:

...The Corps has sampled and tested the sediments in accordance with state 401 certification procedures. This analysis shows, as did the analysis done in 1981 and 1984, that the materials to be dredged are clean lake sand.

That assertion is rebutted by the facts in the record. For nearly all the materials for which the Board has commanded analysis, the most recent testing from the nearest location shows heavily polluted or moderately polluted sediments*. On cross-examination, the Army agreed these samples showed heavy pollution (R. 71) and that they represented the closest and most recent testing (R. 23, 26). Semantic arguments by the Army, regarding "clean sand," will not change the numerical analyses values recorded in 1981 and 1984.

The second objection is that the acquired monitoring data will be insufficient for a meaningful research program. The Board agrees that a comprehensive understanding of the dynamic processes involved would require more extensive testing and analysis than required in the December 5, 1986, Order, and the

* Arsenic, chromium, copper, cyanide, lead, and zinc are above heavily polluted criteria; Kjeldahl nitrogen, ammonia nitrogen, barium and manganese are above the moderately polluted criteria (December 5, 1986, Order, p. 2).

Board would much prefer having such information before it. However, in balancing the navigational needs against the likelihood of pollution, the Board concludes that only a very basic testing program is appropriate at this time to evaluate the general consequences of the dredge and fill project on the water column and possible consequences to the Lake Michigan environment. Navigation channel dredging appears to be an annual or biennial event. This monitoring data will provide the Board with a rough evaluation of the consequences, which can then be used to more carefully evaluate any future requests. Should more comprehensive testing appear needed, the Board can require such testing as a condition precedent to any future dredge and fill activity of a similar nature.

Technical Objections

The Army argues the requirement to sample "upcurrent" of the disposal location will be difficult to implement, as will the 5% dry weight criterion for further sampling as set forth in the Board's December 5, 1986 Order. While the Board does not agree that those provisions are as difficult to implement as the Army indicates, upon review of the comments and the monitoring program set forth in the earlier order, the Board has modified that program to eliminate those requirements. The Board has made further modifications which are directed toward increasing the utility of the program. These revisions require more sampling of sediments at the dredging location and the disposal site prior to the dredging and disposal activities and reduce water column sampling. This should allow for a more accurate determination of changes caused by the dredging activity and focus more on the water quality which is of greater concern than the short-term disruption caused by the disposal operation.

The Board hereby vacates conditions (a)-(k) of the December 5, 1986 Order in this matter, replacing them with the following conditions:

- a) Prior to dredging, a minimum of three sediment borings shall be taken from the area to be dredged. The borings shall be in approximately the northeast corner, center, and southwest corner of the area to be dredged. At each location, a sediment sample shall be taken from the first six inches, and at subsequent two-foot intervals until a sample at least two feet below the proposed project depth is obtained.
- b) Prior to disposal, a minimum of two sediment samples shall be obtained from the top six inches of sediment at the proposed disposal site. The samples shall be taken along the north-south axis of the disposal area such that one is taken at this point approximately 1/3 the length of the axis and the other at this point approximately 2/3 the length of the axis, as measured from the northern boundary.

- c) Two to three weeks after disposal, two additional samples shall be taken of the top six inches of sediment at the disposal site in approximately the same locations as the samples in (b) above.
- d) Six water samples shall be taken at the disposal site, two feet above the lake bottom, two of which shall be taken prior to disposal, two of which shall be taken during disposal and the other two which shall be taken two to three weeks after disposal at approximately the locations specified in (b) above.
- e) All water samples shall be analyzed for the following parameters -- total suspended solids (TSS), total dissolved solids (TDS), turbidity, arsenic, barium, chromium, copper, lead, manganese, mercury, zinc, cyanide and ammonia nitrogen.
- f) All sediment samples shall be analyzed for the same parameters identified above in item (e), above, for water samples except TSS, TDS and turbidity. In addition, all sediment samples shall be analyzed for particle size distribution. Specific attention shall be given to determination of the percent passing through a standard 62 micron sieve (#230 U.S.).
- g) All water and sediment samples shall be analyzed for phosphorus (as P) and total PCBs.
- h) All analytical testing shall be consistent with 35 Ill. Adm. Code 301.104.
- i) A report precisely describing the monitoring program developed and sampling results to comply with these requirements shall be submitted to the Attorney General's office, the Agency and the Board within 60 days of the completion of disposal. This report shall include analytical data for all samples taken and an analysis of the impact of sediment disposal on Lake Michigan water quality during this project. Additionally, it shall include a description of the quality control and quality assurance programs operative during this monitoring program and the results of quality assurance checks.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 5th day of February, 1987, by a vote of 6-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board