

ILLINOIS POLLUTION CONTROL BOARD

MINUTES OF REGULAR MEETING, NOVEMBER 10, 1970
CITY COUNCIL CHAMBERS, ELGIN, ILLINOIS

Mr. Currie announced that the Board at its regular informal meeting on November 9 had published a proposed final draft of the air pollution episode revisions, sent notice to everyone on the mailing list, and mailed copies of the draft, together with an explanatory statement, to persons who had testified at the hearings. Written comments would be received until November 20, and final Board action was expected November 24.

The Board then voted to authorize hearings in the following variance proceedings:

- #70-28, TAMMSCO v. EPA;
- #70-29, Texaco v. EPA;
- #70-30, City of Jacksonville v. EPA;
- #70-31, Owens-Illinois v. EPA;
- #70-32, Springfield Sanitary District v. EPA;
- #70-33, Greenlee Foundries v. EPA.

The Board then unanimously adopted resolutions, at the request of Mr. Dumelle and Mr. Currie, respectively, asking the Environmental Protection Agency to investigate possible water pollution from an overflow of sludge solids at the West-Southwest Works of the Metropolitan Sanitary District of Greater Chicago and possible cadmium emissions to the air from the New Jersey Zinc Co. in DePue.

The Board then approved in principle Mr. Aldrich's proposed revised schedule of meetings to be held during the first half of 1971. The essence of the new schedule is to hold fewer meetings in Chicago and Springfield and more in various places around the state, by shifting meetings to Ma-comb, Bloomington, Charleston, and DeKalb. Fertilizers, sludge utilization, and livestock wastes are to be discussed at the last three of these. The Board asked that in addition to the changes proposed by Mr. Aldrich the March 3 Chicago meeting be moved to Peoria; the April 28 Chicago meeting to Crystal Lake; and the May 12 Springfield meeting be moved to Centralia for a discussion of oil well pollution. Mr. Aldrich agreed to firm up the dates for a number of the rescheduled meetings, and the final revised schedule will be published in the Newsletter and notice of the changes given as provided by law.

Mr. Kissel reported that hearings had been held on #70-8, EPA v. Glendale Heights, but that several questions remained on which further testimony was desirable, including the possibility of water pollution if the proposed new sewage treatment plant is built on a flood plain, the issue of stormwater infiltration, and the question of possible money penalties. Mr. Currie asked if he wished to include the question of possible prohibition of new sewer connections until the present pollution was ended, and Mr. Kissel said he did. The Board unanimously voted to refer the case back to the hearing officer (Mr. George Sullivan) for further proceedings on the several issues discussed.

The Board also unanimously voted, on Mr. Kissel's motion, to authorize inquiry hearings to consider what should be done with respect to regionalization of sewage treatment plants in DuPage County. This issue, Mr. Kissel said, had arisen in the Glendale Heights case, but it was a general one that could best be considered in a broader hearing in which it would be easier to hear from additional parties. The issue was important, he added, because of new federal grant restrictions favoring regionalization as well as because of the inefficiency of small plants.

Mr. Lawton urged the Board to consider a possible regulation clarifying the law with respect to leaf burning, as to which numerous inquiries have been received. He suggested that a distinction might be drawn between the Chicago metropolitan region and other parts of the state. Mr. Currie said he would prefer to see a distinction in terms of all Standard Metropolitan Statistical Areas, in which the concentration of population was such that leaf smoke might cause significant problems. Mr. Aldrich cautioned once more that alternatives to leaf burning might produce undesirable effects of their own. Mr. Lawton agreed to prepare a proposed regulation for Board consideration.

The remainder of the meeting, in accord with published announcements, was devoted to a general discussion of the water pollution problems of the Fox River. A full transcript of the proceedings was taken and is in the Board's file. The Board expects to utilize this information in the design of proposed new regulations. The discussion lasted until 5:30 p.m., and Mr. Currie observed that, although some people had left without being heard, the Board intended to give further opportunities for comment on the Fox River problem and that the day's proceedings were the beginning, not the end of discussion. The Board was criticized for scheduling

governmental witnesses invited by the Board ahead of citizen testimony, and it was suggested that in similar situations in the future the Board set aside separate times for technical and for public comment so that it would not be necessary for witnesses to take off an entire day in order to be heard.

Senator Robert Mitchler, Chairman of the Illinois Commission on Water Pollution and Water Resources, offered the encouragement and cooperation of his Commission, urged the desirability of a basin-wide approach, and noted that the Fox is already somewhat polluted when it crosses the border from Wisconsin. Mr. Currie thanked the Senator for his cooperation and for his help in the legislature with regard both to the bond issue, of which Senator Mitchler was an original sponsor, and to the Environmental Protection Act. He also replied to certain questions that had been posed by the Commission to the Board with respect to the Fox River. Monitoring, he said, was the responsibility of the Environmental Protection Agency, but the Board could adopt regulations requiring more complete monitoring. The problem of Wisconsin polluters was partly met by the statutory provision for extraterritorial service of process on out-of-state dischargers who cause pollution in Illinois. The Board was particularly concerned with septic tanks, he added, and an Institute-funded study was under way that would lead to a Board proposal for regulatory action on that subject. Watercraft wastes, he said, were covered by SWB-19, whose adequacy the Board hoped to re-examine in the near future; it might also be necessary to require marinas to provide pumping facilities or to limit the number or size of vessels on the river and its lakes. The best hope for comprehensive area planning, he said, lay in support for the projected state-wide land-use planning legislation he expected the Institute to propose in the next legislative session. Such a program would help to assure that land not be put to uses for which it is geologically or otherwise unsuited.

Mr. Kenneth Fiske of the Northeast Illinois Natural Resource Service Center urged the desirability of integrated management of an entire watershed, noted that with an Institute grant his agency could put existing land-use, soil, and geological information together into a form useful for intelligent planning, and observed that several but not all of the counties in the Fox basin require permits for the installation of septic tanks, on varying terms. He added that the cutting of private channels connected to the river created stagnant cul-de-sacs where nuisance conditions occur and that better regulation was needed of fills in the river and lakes.

Mr. Donald Young, Kendall County planning officer, pointed to the registration of 8000 boats in the Fox chain of lakes as compared with 3000 in Lake Michigan and urged the Board to look closely at problems of agricultural pollution--sediment, nutrients, and pesticides--in the lower river. Land immediately adjacent to streams, he said, should not be farmed but preserved as greenbelt, and row cropping increases runoff and erosion. Moreover, he said, the water quality standards in SWB-11 do not apply to tributaries of the Fox. Mr. Currie noted that discharges in tributaries that caused violation of standards on the main river were subject to abatement, but that SWB-14, which provides standards for all intrastate waters, is wholly inadequate and would be revised, since it fails to designate uses for individual streams and therefore its aquatic, recreational, and water supply criteria are meaningless.

Mayor Albert McCoy of Aurora, chairman of a committee investigating Fox River problems, presented the Board with copies of his committee's study and recommendations.

Mr. Lee Townsend of FWQA promised the Board copies of 1969 studies made of the Fox, confirming a 1963 conclusion that the river and its lakes are very over-fertilized. He offered to arrange joint consultations with Wisconsin looking toward revised standards, and Mr. Currie said the Board would be happy to participate in such discussions.

Mr. Ray Ownbey of FWQA outlined the guideline for implementing the new regulations for federal sewage treatment grants, observing that a basin-wide plan was required for further grants and that Governor Ogilvie had not yet designated an agency to certify such plans on behalf of the state. Mr. Kissel assured him the Board would do what it could to see to it action was taken to avoid jeopardizing grants for want of overall planning. Mr. Dumelle observed that the effluent inventory contemplated by the guidelines as a part of the basin plans would be of great aid to the Board in devising new regulations.

Mr. Currie recounted a number of general suggestions earlier made by FWQA for upgrading the State's water quality standards: that the nondegradation standard be quantified; that minimum conditions such as oil limitations be strengthened; that temperature limits be lowered in some cases to 84°. Mr. Pratt of FWQA agreed that these suggestions were applicable to the Fox. Mr. Dumelle noted that his proposed effluent standards, on which hearings would soon be held, would require the best available technology to control nutrients. Mr. Currie observed that FWQA technical assistance

would be indispensable to the Board in determining just what were the limits of practicable treatment of the many parameters listed in Mr. Dumelle's proposal and agreed at Mr. Townsend's suggestion to make a written request to Mr. Mayo, Regional Director of FWQA, for such assistance. He also obtained the concurrence of Mr. Pratt that there was need to change the present requirement for nutrient removal by 1977 or when practical methods of control are developed, since overfertilization is a principal problem in the Fox and since treatment methods are readily available. Mr. Pratt suggested that the zinc standard might be tightened to 0.05 mg/l on the basis of harm to fish.

Professor James Patterson of the Illinois Institute of Technology reported the results of one summer's frequent sampling of four parameters in the Fox from Wisconsin to North Elgin. BOD ranged from five to sixteen ppm, without significant differences between river sections or seasons; dissolved oxygen from four to ten ppm generally, although samples were taken in the early morning when, in such highly eutrophic waters, DO would be expected to be at its lowest. The large diurnal variations in DO found show, he said, that the river is overfertilized: algae produce oxygen during day light and use it up at night. Daytime supersaturation can create a hazard of emboli in fish. Moreover, there was one disturbingly low value of <3 ppm DO at Grass Lake. He urged the Board to consider requiring nutrient removal and control of agricultural runoff. Neither phosphates nor algae were measured, he said, but the water was often green with algae. Since his study reported extreme pH values from 6.8 to 7.5 and maximum temperature in the vicinity of 83°, he agreed with Mr. Currie that the Board should consider tightening the existing standards for those parameters. In response to a question by Mr. Aldrich, Professor Patterson said he did not think a reduction in algae would worsen the oxygen deficiency since algae very likely consume as much oxygen at night as they produce by day. He acknowledged that DO levels were likely to be lower below Elgin, since there were greater organic inputs there. The principal sources of BOD in the upper river and lakes, he thought, were bottom sediments and dead algae.

Mr. Ralph Evans of the State Water Survey reported that the headwaters of the Fox have been overfertilized so long that nuisance algae blooms have occurred for the past 35 years. Dams contribute to the problem by creating sluggish "incubation chambers" for algal growth, and plans for further dams require further evaluation. Enormous counts of obnoxious blue-green algae have been found; 23,000 per ml at Algonquin and even more below. Similar numbers of diatoms, he said, might

be barely visible; but blue-greens are much larger, and the accepted nuisance level is 500 per ml. The algae are so bad they interfere with measurements of other water quality parameters. Because 75% of the phosphates in the upper river (and 80% of the water) comes from Wisconsin, and because of natural fertilization from marshes, Mr. Evans doubted that nutrient removal would be an effective first step in algae control. He advocated careful and selective application of chemicals such as copper sulfate in the short run under proper supervision. Mr. Currie inquired as to possible adverse environmental effects of such applications. Mr. Evans replied that the Mackenthun study of Lake Monona in Wisconsin had failed to show any residual harm after 26 years of copper sulfate applications.

Mr. Evans urged that tertiary sewage treatment be applied in the Elgin-Aurora area since sewage effluent constitutes 76% of the stream in that section. Mr. Currie responded that, in light of Mr. Evans's figures, there appeared to be an inconsistency between the general requirement in SWB-11 of tertiary treatment in the absence of 2 to 1 dilution and the specific requirement of only secondary treatment at such places as Elgin and Aurora. Mr. Evans agreed that most Illinois streams receiving effluents, except for the very largest, were likely to be more than half sewage effluent during low-water periods.

Mr. A. L. Kellerstrass of the State Division of Waterways agreed to provide the Board with copies of a paper cataloguing low flows in numerous Illinois streams, which the Board thought would be very helpful in designing water quality and effluent standards. In answer to Mr. Currie's question, he said that in passing on permits to dredge, fill, or cut channels into public waters such as the Fox River, his agency solicits the views of the Environmental Protection Agency, but he doubted that the Division had authority to deny such a permit on grounds of pollution. He assured the Board, however, that the grant of such a permit in no way authorized pollution or exempted the permittee from the requirements of the Pollution Control Board.

Mr. Ralph Freese complained that the Division of Waterways had failed to take action despite years of complaints regarding the piling of materials by a silica company on the bank of the Fox so as to create a danger of pollution which in fact had materialized. Mr. Kellerstrass responded that the Division was gathering evidence for a possible administrative order against the company. Mr. Dumelle pointed out that the Division could ask for federal prosecution under the Refuse Act of 1899. Mr. Currie pointed out that any citizen could file a complaint with the Board, and that

piling materials where they created a water pollution hazard was a violation of the Environmental Protection Act.

Professor John Dewerr of Waubansa College argued that dams would adversely affect dissolved oxygen concentrations by decreasing aeration in riffles and by decreasing the surface to volume ratio. He urged the Board to consider a DO standard in terms of a percentage of saturation.

Mr. Robert Layer, of the Defenders of the Fox, endorsed the use of an ecological land inventory to control the type and density of land use, endorsed the Sheaffer plan for returning sewage effluents to the land rather than to the rivers, and argued that the Board should be given power to review all requests for dredging and damming the waters.

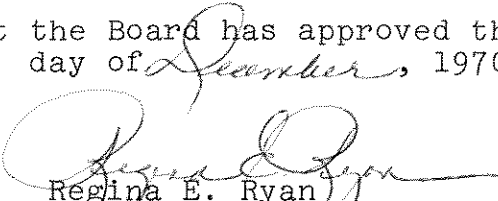
Mrs. Rita Halvorsen, also of the Defenders of the Fox, pointed out the need for overall planning regarding land use and transportation policies, urged that the tributaries be cleaned up, complained that the Environmental Protection Agency was too reluctant to deny permits for connections to overloaded plants, and made a number of other suggestions. Mr. Currie observed that much of what she asked was unfortunately beyond the Board's power, but that the Board could help to alleviate some of the problems by adopting meaningful tributary and effluent standards, by regulating septic tanks, and perhaps by forbidding new connections that would increase pollution from inadequate treatment plants. He agreed to refer her request for a local water-quality laboratory to the Environmental Protection Agency, and Mr. Dumelle pointed out the efficiency of relatively centralized laboratory facilities.

Mr. Philip Chapman of the Kane County Clean Streams Committee spoke in opposition to further dams on the Fox, quoting an official from the Department of Public Health to the effect that dams contribute to algae problems. He asked support for Rep. Charlotte Reid's request for designation of the Fox area as a demonstration region for federal grant purposes and reported several gross violations of the water pollution laws and regulations. Mr. Kissel said the Board might consider asking the EPA to investigate these violations under §30 of the Act, and Mr. Currie reminded Mr. Chapman of his right to file a citizen complaint. In response to Mr. Chapman's question as to the Board's attitude on combined sewers, Mr. Currie responded that sewer separation was both expensive and inadequate since urban storm water is polluted; that the present regulations are vague on the issue; and that the Board would hold hearings before determining its position on the issue.

Mr. John Juergensmeyer of the Elgin Jaycees Anti-Pollution Committee urged the Board to regulate phosphate and sewage inputs and suggested that more convenient laboratory facilities would encourage citizen investigations of water quality. He also reported on a citizen cleanup of the Fox River during which large numbers of large foreign objects were removed and added his opinion that the rendering plant described by Mr. Chapman was a terrible nuisance. He filed with the Board a formal complaint against that company.

At 5:30 p.m. the meeting was adjourned.

I, Regina E. Ryan, certify that the Board has approved the above minutes this *9th* day of *December*, 1970.


Regina E. Ryan
Clerk of the Board