

ILLINOIS POLLUTION CONTROL BOARD  
September 18, 1975

VILLAGE OF ARGENTA, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 75-182  
 )  
 ) ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

VILLAGE OF CERRO GORDO, )  
 )  
 ) Petitioner, )  
 )  
 ) v. ) PCB 75-183  
 )  
 ) ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 ) Respondent. )

OPINION OF THE BOARD (by Mr. Dumelle):

This Opinion supports the Orders entered in these two cases on July 17, 1975 which granted the variances with conditions.

Interim Opinions and Orders were entered in both cases on June 26, 1975. For Argenta and Cerro Gordo, the Orders required information on the separate fiscal estimates for the sewage treatment plant or lagoons, respectively; the extent, if any, of an algae bloom problem on Lake Decatur; and lastly, any information as to the existence of taste or odors occurring in public waters supplies taken from Lake Decatur and caused by algae.

Responses were received on July 9, 1975 in both cases from the same consulting engineering firm. For Argenta, it was stated that algae has occurred in Lake Decatur but that turbidity "had always kept the algae problem under control". Algae was reported in the northern shallow area of Lake Decatur. Taste and odors in Decatur's water supply "have never been uncontrollable". A new Decatur water plant is said to make control of taste and odors "less of a problem".

An Agency response, received July 10, 1975 quotes the Illinois State Water Survey report as showing that Lake Decatur should be subject to occasional algae growths. The Agency points out that the Decatur water plant uses activated carbon as a final polishing process and thus controls taste and odors.

The new fiscal data showed a cost for the Argenta sewage treatment plant alone of \$640,000 compared to \$620,000 alone for the land treatment alternative. Furthermore, the land has a salvage value of \$250,000. And the annual maintenance and operation costs are listed at \$6,700 with a \$3,000 revenue offset for land treatment compared to annual costs of \$30,000 to run the proposed sewage treatment plant.

For Argenta, the land treatment alternative thus appears much less costly and certainly not "prohibitive" as originally stated in the Petition. However, the Petition is not clear as to whether land treatment was an alternative to the sewage treatment plant or an "add-on" process. In any event, the Board has usually left the choice of methods of compliance to the Petitioner. We grant Argenta a variance from the phosphorus water quality standard until July 1, 1977 but shall require that provision be made in the sewage plant design for phosphorus removal facilities (adequate space, blanked pipe flanges, etc.) should the algae problem on Lake Decatur increase in intensity. While the phosphorus contribution from Argenta to Lake Decatur appears small it may be the largely algae-reactive ortho-phosphate type compared to the stream load of phosphorus bound to soil particles and hence not growth stimulating to algae.

For Cerro Gordo, the preceding discussion as to algae blooms on Lake Decatur also holds. The new fiscal data shows a cost for the lagoon treatment facility of \$363,730. The land treatment facility is estimated to cost an additional \$611,000 (less a salvage value of \$250,000). The land treatment facility is evidently an "add-on" process to the lagoons but this was not clear in the Petition.

Again, as for Argenta, we grant the variance to Cerro Gordo but require that provision be made for future phosphorus removal facilities should these be found necessary. We note that the Preliminary Report on Lake Decatur attached to the consultant's response terms the Lake as "eutrophic" and phosphorus-limited. The phosphorus loading rate is given as more than 7 times the "dangerous" rate.

We agree with the Agency that more research is needed on the phosphorus question as it applies to lake eutrophication. And time does not permit that to be done in this variance proceeding.

This Opinion constitutes the Board's findings of fact and conclusions of law.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion was adopted on the 18<sup>th</sup> day of September, 1975 by a vote of 3-0.

Christan L. Moffett (gr)  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board