

ILLINOIS POLLUTION CONTROL BOARD

March 13, 1975

CARTHAGE INDUSTRIAL DEVELOPMENT)
CORPORATION AND CITY OF CARTHAGE,)
 Petitioners,)
))
 v.) PCB 75-48
))
ENVIRONMENTAL PROTECTION AGENCY,)
 Respondent.)

Mr. John R. Glidden, attorney for City of Carthage.
Mr. Joseph E. Svoboda, attorney for Environmental Protection Agency.

INTERIM OPINION AND ORDER OF THE BOARD (by Dr. Odell)

Petitioners, Carthage Industrial Development Corporation (Corporation), a not for profit corporation, and the City of Carthage (City), a municipal corporation, filed a Petition for Variance with the Illinois Pollution Control Board (Board) on February 3, 1975. Petitioners seek relief from an Illinois Environmental Protection Agency (Agency) prohibition of construction and operation of a sanitary sewer extension, tributary to the City's overloaded sewage treatment plant. This Agency prohibition was made pursuant to Section 39 of the Environmental Protection Act (Act). (Ill. Rev. Stat., 1971, Ch. 111 1/2, Sec. 1039) and Rule 962 of Chapter 3, Water Pollution Regulations (Chapter 3). Petitioners seek such relief to extend a sanitary sewer to a new industry which proposes to locate in the City.

The Corporation is duly organized under the laws of Illinois to promote employment opportunities and to encourage industrial and economic growth in the City, which is located in Hancock County, Illinois (Pet. Ex. A). As a result of cooperative efforts of the Petitioners, a commitment has been received from an industry desiring to locate a manufacturing facility in the City. The industry proposed to construct a manufacturing plant of 20,000 square feet, which will initially employ 50 to 75 persons and may possibly employ up to 200 people within two years. The manufacturing plant would have wastes from restroom and toilet facilities, but no industrial wastes.

Petitioners allege that problems found by the Agency to exist in the City's present sewage treatment plant require a new treatment plant, which is currently beyond the capability of the Petitioners. On November 10, 1970, citizens of the City successfully voted to issue general obligation bonds in the amount of \$200,000 to be used to acquire real estate for the location of a new sewage treatment plant, construction of the

treatment plant, and for associated engineering and legal expenses (Pet. Ex. B). The desired real estate and related easements for the new sewage treatment plant were purchased by the City on December 2, 1972 (Pet. Ex. C and D). For constructing the new sewage treatment plant, the lowest bid received May 15, 1973, was \$527,837.30 (Pet. Ex. E). Although the City has \$200,000 available for construction of the new sewage treatment plant, this amount is inadequate and must be supplemented by state and federal funds. The City has applied for such funds. Efforts are being made to accelerate the solution of community sewage treatment problems in those municipalities which fulfill necessary requirements for approval (Pet. Ex. F).

The City alleges that the problems which exist in their present sewage treatment plant are caused by infiltration during wet periods. Since most of the initial employees of the proposed industry are expected to be residents of the City, "there would not be any appreciable additional waste water load contributed to the present sanitary system." Petitioners further allege that since the enrollment of Robert Morris College in the City has declined from approximately 600 students from 1966 through 1969 to 200 students now, this has resulted in a substantial decrease in the waste waters transmitted to the City's sewage treatment plant.

Petitioners allege that denial of the variance allowing the proposed industrial facility to connect into the present City sewage treatment plant would impose an arbitrary and unreasonable hardship on Petitioners in that (a) if the new industry does not locate in Carthage for lack of a sewer connection, this would be a "severe economic loss" to the City and community, and (b) it would nullify the efforts of Petitioners to attract new industries to the City.

On February 13, 1975, the City filed with the Board (a) a Resolution authorizing the execution and delivery of a Memorandum of Intent between the City and Carthage Precision Electric Company (Company), a Delaware corporation, providing for the issuance by the City of \$200,000 of revenue bonds, and (b) a copy of this Memorandum of Intent, which had been signed by the City officials but not by the Company officials when it was filed with the Board. These revenue bonds may be obtained under the Industrial Project Revenue Bond Act of Illinois (Public Act 77 - 1453). This would permit the City to obtain favorable funding for construction of a manufacturing plant for which the Company would reimburse the City under a mutually acceptable agreement.

The Recommendation of the Agency was received by the Board on March 3, 1975. "The City's sewage treatment facility is of the trickling filter type and has a design average flow of 0.36 MGD. Unchlorinated plant effluent is discharged through separate east and west clarifier outfalls to Prairie Creek, an intermittent stream tributary to the LaMoine and Illinois Rivers. The May 2, 1973, inspection report of Agency engineer James R.

Leinicke states that the sewers are about 30% combined and 70% sanitary sewers, and almost any rainfall tends to promote bypassing of the treatment plant. No flow records are available as the plant's recorder has been inoperable for many years. Average flow is known to exceed 0.36 MGD, as this is the maximum plant capacity and bypassing occurs on a near daily basis (49% to 79% of the time). Average daily flow is estimated to be 0.5 MGD (0.375 MGD average daily water usage plus infiltration). Bypass overflow occurs immediately after the bar screen and, in addition, the report states that no maintenance had been given to the Imhoff tank scum vents in many years, as the iron trap doors to them had been corroded shut. It is not known what, if any, maintenance is given to the Imhoff tank. Also, the trickling filter with fixed nozzles operates inefficiently, as ponding is very common in this filter, and the media is composed of smooth oval stones of very small size which apparently clog easily. The anaerobic digester tank from which the top has corroded serves to store sludge until it can be wet hauled to agricultural land.

"Since August 1966, proposed sewer extensions within the City's sanitary sewer system have been subject to critical review by the Agency's predecessor, the Sanitary Water Board (SWB) and by the Agency. On June 26, 1970, the SWB notified the City that future extensions to the sanitary sewer would be restricted until progress toward providing adequate treatment facilities is well advanced. The draft NPDES permit for the City of Carthage was forwarded to USEPA on June 20, 1974. Final issuance had not occurred as of the date of this Recommendation. The interim effluent standards until June 30, 1975 were 40 mg/l of BOD and 40 mg/l suspended solids on grab samples. A condition of that permit, Part III(b), sets forth the requirement that:

Permittee must provide optimum operation and maintenance of the existing waste treatment facility and the maximum practical flow shall be conveyed to the treatment facility to produce as high quality of effluent as reasonably possible.

"Recent effluent data for the City of Carthage's sewage treatment plant, as determined from Agency grab samples, are listed below:

<u>Date</u>		<u>BOD</u>	<u>SS</u>	<u>Fecal Coliform</u>	<u>Ammonia as N</u>
October 9, 1974	(E)	23	17	304,000	12.0
" " "	(W)	14	20	221,000	9.8
November 19, 1974	(E)	12	21	98,000	4.6
" " "	(W)	8	25	164,000	4.5
December 16, 1974	(E)	53	42	6,900	2.8
" " "		43	42	51,000	2.5
January 13, 1975	(E)	123	64	30,000	8.1
" " "	(W)	73	54	260,000	7.9

(E) = Samples of effluent from East clarifier.

(W) = Samples of effluent from West clarifier.

"Agency biologist William Tucker conducted a biological survey of the receiving stream, Prairie Creek, on February 11, 1975. He classified two sampling stations, the first being 100 yards downstream of point of the City's discharge, as polluted, and the second sampling station 3 1/2 miles downstream at Highway 70 south of Carthage, as semi-polluted." Unfortunately, no data are given for samples upstream from the City's discharge to provide a comparison with those downstream and thereby evaluate the impact of the City's discharge.

"Chlorination has not been provided for the plant's effluent and without chlorination the City violates the Chapter 3 Rule 405 standard of 400/100 ml fecal coliform. This lack of chlorination can constitute a health hazard for anyone using Prairie Creek."

The City has two kinds of problems concerning their sewage treatment. First, the management of their present sewage treatment is inadequate, and they have done much less than they could to correct these difficulties. The City has worked diligently on the second problem, financing a new sewage treatment plant, but additional cooperative effort is needed by local, state, and federal authorities.

The Agency advised the City by letters of April 10, 1974, and October 18, 1974, concerning detailed steps that the City should take to improve the operation and maintenance of their sewage treatment plant. At the time of the Agency Recommendation in this case, they had received no response to the 18 detailed suggestions in their letter of October 18, 1974, to the City. Although the college student population and associated waste waters are less than several years ago, the present sewage treatment plant is regularly overloaded and is not operated so as to treat the average daily flow to acceptable levels. The industry which the Petitioners are seeking to add to the City system would add more sewage and aggravate the current treatment problem. No sewer extension which increases the loading of the treatment plant is warranted until improvements in operation, such as those suggested in the Agency's previous letters, are implemented.

The Petition for Variance states that the City "would be able to bring its sanitary treatment facility into compliance with the requirements of the Agency at such time as state or federal funds become available to the City to supplement the funds that the City currently has on hand for this project." The Agency states, however, that "after a grant offer is made (in the next few weeks) the City will have to submit revised plans and specifications and let the project out to bid. Before the new plant is on line a considerable amount of time, perhaps 18 months, will be taken up." Although the proposed industry is desirable and would be of economic value, its waste water should not be added to a persistently overloaded sewage system in which the City has not done what it can and should reasonably do to reduce pollution from its sewage treatment plant.

Therefore, the Board will give Petitioners a limited period to develop, in consultation with the Agency, an interim compliance plan of improved practices which they will implement at their present sewage treatment plant in line with suggestions in the Agency's letter of October 18, 1974, to the City. The Agency will then be given a brief period to respond to the Board concerning the improved practices which will be implemented at the City's present sewage treatment plant.

The Board also requests Petitioners to comment on the possible use of interim adequate sanitary treatment facilities (e.g. septic tank and tile seepage field, portable sanitary units, or portable waste treatment facilities) to treat the limited amount of wastes anticipated from the proposed new industry until they can be adequately treated by the City's sewage treatment plant.

ORDER

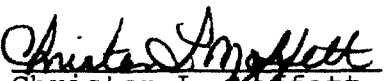
IT IS THE ORDER of the Pollution Control Board that:

1. Petitioners, Carthage Industrial Development Corporation and the City of Carthage, submit to the Board and Agency by April 1, 1975, an interim compliance plan to improve the operation of the City's present sewage treatment plant in line with suggestions in the Agency's letter of October 18, 1974, to the City.

2. The Agency shall comment to the Board by April 8, 1975, concerning the adequacy of the City's interim compliance plan submitted in accordance with Order 1 above.

3. Failure of Petitioners to submit their interim compliance plan to the Board and the Agency by April 1, 1975, will subject the Petition for Variance to possible denial.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 13th day of March, 1975, by a vote of 4 to 0.


Christan L. Moffett