

ILLINOIS POLLUTION CONTROL BOARD
January 20, 1977

CATERPILLAR TRACTOR COMPANY,)
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 Petitioner,)
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 v.) PCB 76-195
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 ENVIRONMENTAL PROTECTION AGENCY,)
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 Respondent.)

Mr. Richard J. Kissel of Martin, Craig, Chester & Sonnenschein and Mr. Charles B. Gustafson of Caterpillar Tractor Company, appeared on behalf of Petitioner; Honorable William J. Scott, Attorney General of the State of Illinois, by Ms. Barbara Revak, appeared on behalf of Respondent.

OPINION AND ORDER OF THE BOARD (by Mr. Goodman):

This matter is before the Board on a Petition for Variance filed July 20, 1976 by Caterpillar Tractor Company (Caterpillar) for its manufacturing facility in Joliet, Illinois. The Environmental Protection Agency (Agency) filed its Recommendation on September 14, 1976, and hearing was held in this matter on November 17, 1976. No public comment has been received by the Board.

Caterpillar requests extension of a series of variances granted by the Board from Rules 404(b)(ii), 962, and 102 of Chapter 3, Water Pollution Regulations. The most recent of the previously granted variances was granted on April 26, 1976, wherein Caterpillar was granted variance until July 1, 1976 in PCB 75-467. The subject of the variance petition is Caterpillar's Joliet plant which employs about 6,000 people in the manufacture of earth moving and construction machinery equipment.

In PCB 75-467 the Board continued the interim limit of 130 mg/l of BOD₅ on a monthly average basis. The Board granted this six month variance to enable Caterpillar to fully document the environmental impact, if any, of their discharges upon Dresden Island Pool in the Des

Plaines River. In addition Caterpillar was to present evidence with regard to the possibility of using surge tanks or lagoons to trap spills, and was to document its alleged delay in equipment delivery with respect to its proposed treatment plant. The instant petition addresses the three issues presented by the Board in PCB 75-467.

On January 10, 1977 Caterpillar filed a Motion to Strike, the subject of which was a letter from the Agency to the United States Environmental Protection Agency propoing to withdraw its conditional certification of a draft NPDES permit. Since the Board considers the original certification of the draft NPDES permit by the Agency to be immaterial to the determination of this proceeding, it finds no difficulty in granting Caterpillar's Motion to Strike the letter withdrawing the said certification.

Caterpillar's hardship and good faith in this matter has been documented completely in the prior Board Orders granting variance and will therefore not be repeated here. The issue before the Board here is the balance of potential danger to the environment against that hardship, and whether Caterpillar has considered alternate methods of interim control prior to the installation of its treatment plant. Caterpillar had originally proposed that the treatment plant be in operation by July 1, 1977 but due to some minor miscalculations and problems both in delivery of equipment and the labor situation at the facility, they now have determined that a date of April 1, 1978 would be the earliest that the treatment plant could be put on line. In its Recommendation the Agency agrees that the April 1, 1978 date is reasonable and testimony presented at the hearing leads the Board to accept Caterpillar's allegation that the delay was unavoidable and beyond its control (R.43-47).

Testimony at the hearing and exhibits presented have convinced the Board that interim control procedures to lower the BOD₅ load on the Des Plaines River prior to operation of the proposed treatment plant are impractical (R.143). Caterpillar's problem with BOD₅ concerns soluble material, the removal of which entails generally the sort of treatment that will be achieved by the proposed treatment plant. Any interim control of this BOD₅ would likely demand a process equivalent to the treatment plant both in cost and in time and would, therefore, be of no practical use (R.144,145).

Subsequent to the Order in PCB 75-467 Caterpillar contracted with a well-known consulting firm for a study of the effect upon the Dresden Island Pool of the Des Plaines River by Caterpillar's effluent at Joliet. Testimony by Kenneth Price of the firm of Clark, Dietz & Associates Engineers, Incorporated indicated that the investigation and modeling studies carried on by the consulting firm showed that Caterpillar's effluent had very little effect on the River (R.113-135).

Cross examination by the Agency indicated some minor deficiencies in the study but by and large did not refute the conclusion. The Board, therefore, finds that the potential harm to the environment caused by Caterpillar's effluent does not overcome the hardship imposed upon Caterpillar by immediate compliance with the Regulations.

In its Petition Caterpillar proposes a BOD₅ level of 170 mg/l on a monthly average basis and 426 mg/l on a daily maximum basis. Caterpillar supports these figures with a statistical study of the results of BOD₅ analyses for a 20-month period starting January, 1975 through August, 1976. This analysis indicates that at 170 mg/l there is a 97.7 percent probability that Caterpillar's effluent will not exceed that limit. The 426 ppm proposed limit for the daily average is based upon two and one-half times the average monthly limit (Exhibits 4, 5, and 6, R.39). In addition a parallel analysis of the last twelve months from September, 1975 through August, 1976 indicated that a lower limit based upon that twelve month history might be appropriate. The Agency in its Recommendation proposed a limit of 100 mg/l BOD₅ as that level that should be considered as an interim limit based upon projection of Caterpillar's current results.

There was considerable testimony at the hearing concerning the justification of Caterpillar's proposal, the Agency indicating that Caterpillar has achieved its most recent success in lowering BOD₅ levels through housekeeping and other procedures. Indeed, Petitioner's Exhibit #7 indicates the procedures used by Caterpillar in order to lessen the BOD₅ load in its effluent. Considering all the evidence, the Board is convinced that the results of the last twelve months are probably more indicative of the ability of Caterpillar to control the BOD₅ level of its effluent. The 20-month study indicated some extremely high but isolated excursions in the level of BOD₅ which have not been repeated in the last twelve months.

In cases such as this, the Board imposes interim limits that, while within the capability of the Petitioner to accomplish, still offer the maximum protection possible to the environment. The present interim limit imposed by the Board upon Caterpillar's effluent is 130 mg/l of BOD₅. Based upon the statistical analysis of the last twelve months of Caterpillar's experience, this level results in a 90 percent probability of compliance by Caterpillar on a monthly average basis. The Board finds no overwhelming evidence to indicate that this level should be changed in either an upward or downward direction and, therefore, will continue the limit as imposed previously.

This Opinion constitutes the findings of fact and conclusions of law of the Board in this matter.

ORDER

It is the Order of the Pollution Control Board that Caterpillar Tractor Company be granted variance until April 1, 1978 from Rule 404(b)(ii), 962(a) and 102 of Chapter 3 of the Water Regulations for its Joliet, Illinois facility subject to the conditions imposed under the Board Order of April 8, 1976 in PCB 75-467, which Order is hereby incorporated by reference as if fully setforth herein.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 20th day of January, 1977 by a vote of 5-0.



Christan L. Moffett Clerk
Illinois Pollution Control Board