

ILLINOIS POLLUTION CONTROL BOARD
April 8, 1976

CATERPILLAR TRACTOR COMPANY, (Joliet Plant))	
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)	
Petitioner,)	
)	
)	
v.)	PCB 75-467
)	
)	
ENVIRONMENTAL PROTECTION AGENCY,)	
)	
Respondent.)	

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

Petition for variance from Rules 404(b)(ii), 902, 952, 953 and 1002 of Chapter 3, Water Pollution Regulations, was filed December 11, 1975. No public hearing was held. The Illinois Environmental Protection Agency recommendation was filed on January 29, 1976. On March 4, 1976 Petitioner filed amendments to its Petition.

The Joliet Plant of the Caterpillar Tractor Company ("Caterpillar") employs about 6,000 persons in the manufacture of earthmoving and construction machinery and equipment. Previous variances were granted by the Board on October 24, 1974 (PCB 74-333) and on April 24, 1975 (PCB 75-54).

The previous variance petitions, recommendations and Board Opinions were attached and made part of the instant Petition.

The history of this proceeding can be summarized as follows: Caterpillar discovered, about May 1974, that their reported BOD₅ values were far too low by a factor of 3 to 4. They promptly engaged a consultant and devised a program to come into compliance with the Regulations.

The most recent variance (PCB 75-54) set 130 mg/l as the maximum monthly average limit. It also required the construction work to be awarded by June 1, 1976 with completion by July 1, 1977.

Caterpillar did not meet the 130 mg/l limit as shown below in four of nine months for which data are presented.

January 1975	133 mg/l
February	847
March	97
April	125
May	63
June	65
July	54
August	394
September	134

As can be seen from the data, two of the violations (January and September) are de minimus. The remaining two violations are severe. February 1975 averaged 847 or more than 6 times the Board level; August averaged 394 or 3 times the authorized level. The daily data shown in Exhibit D of the Petition reveals extremely high values. February 7 for example was 5700 mg/l or 44 times the monthly limit. On August 19, a level of 3,960 mg/l was recorded. These high levels were said by Caterpillar to be due to spills.

Caterpillar requests a new monthly average limit of 170 mg/l and 426 mg/l as a daily average with 5% of the BOD₅ samples allowed to exceed the limit in any calendar month. It asks that the construction completion date of July 1, 1977 be extended to December 1, 1977 with a further 5 month allowance (to April 1, 1978) for a debugging period.

The Agency's recommendation quotes an Illinois State Water Survey study of 1971 of the Dresden Island Pool into which the subject effluent flows. It points out that the minimum dissolved oxygen of 2.1 mg/l in the Pool is almost at the minimum standard of 2.0 mg/l and it gives the equivalent Caterpillar discharge as being 1,092 lbs. of BOD₅ at 170 mg/l.

We are then able to project the probable effects of Caterpillar's discharges. The February 1975 discharge would put 6 times more BOD into the Dresden Island Pool or about 6,600 lbs. per day for the entire month. The February 7, 1975 discharge of 5,700 mg/l would put 48,400 lbs. of BOD on this single day.

The Agency recommendation gives the 1971 value of 90,450 lbs. of BOD as the daily loading. The February 7, 1975 discharge would thus exceed 50% of that amount. A discharge of 48,400 lbs. of BOD contains the oxygen demand of the raw sewage of 290,000 persons.

However, we are dealing above with 1971 data. We do not know the present BOD loading into the Dresden Island Pool or its resulting oxygen levels. The environmental impact of the Caterpillar discharge on the Dresden Island Pool was not addressed by either party in the two previous variances.

Because Caterpillar has relied upon prior variances granted by the Board we feel it best to grant a six month variance under the old limits. In a new proceeding, Caterpillar will be able to fully document the environmental impact, if any, of their discharges upon Dresden Island Pool. In addition, the possibility of using surge tanks or lagoons to trap spills ought to be explored. Lastly, the delay in equipment delivery has not been documented.

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

ORDER

1. Caterpillar is granted a variance from Rules 404(b)(ii), 962 and 1002 of Chapter 3 from December 31, 1975 until July 1, 1976.
2. Petitioner's effluent shall not exceed 130 mg/l BOD₅ on a monthly average basis.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 8th day of April, 1976 by a vote of 5-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board