

ILLINOIS POLLUTION CONTROL BOARD  
June 22, 1978

REXENE STYRENICS COMPANY, )  
 )  
 Petitioner, )  
 )  
 v. ) PCB 78-48  
 )  
 ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 Respondent. )

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

On February 17, 1978, Rexene Styrenics Company (Rexene) filed a Petition before this Board for a variance from Rule 408(b) of Chapter 3: Water Pollution Regulations. Specifically, Petitioner requests a five-year variance from the 3500 mg/l maximum effluent total dissolved solids (TDS) limitation for its resin manufacturing facility. On March 2, 1978, the Board set this matter for hearing following an Objection to the variance by the Environmental Protection Agency (Agency). On April 6, 1978, the Agency submitted a Recommendation in favor of a one-year variance from Rule 408(b). On May 25, 1978, the Agency was granted leave to withdraw its Objection and to submit an Amended Recommendation filed on May 23, 1978, in support of the one-year variance subject to revised conditions. Since Rexene properly waived hearing in its Petition, no hearing is necessary in this matter.

The subject of this Petition is a manufacturing facility owned and operated by Rexene Styrenics Company in Joliet, Illinois, which discharges to the DesPlaines River in excess of the maximum TDS effluent limitation of Rule 408(b) in Chapter 3. Petitioner's operations employ approximately 175 people producing approximately 75 million pounds of resin annually. Manufacturing processes on site include facilities for producing polystyrene resin, styrene/acrylonitrile and acrylonitrile/butadiene/styrene (ABS) copolymer resins and an ABS intermediate (Pet. pl). Effluent generated from the manufacturing facility is either recycled within the process or treated in an activated sludge system before it is discharged to the DesPlaines River.

Rule 408(b) prohibits any increase in TDS concentrations more than 750 mg/l above background levels and sets as an upper TDS concentration limit of 3500 mg/l for effluent from recycling or other pollution abatement practices. In this case, Petitioner reports that its treated discharges have consistently exceeded the 3500 mg/l TDS effluent limitation in monthly averages for the entire 1977 calendar year (Pet. Append.). Investigations were conducted to reduce TDS concentrations but, to date, alternative approaches have proved unsuccessful. The Petition indicates that the use of substitutes for sulfuric acid increased shutdown time or failed to improve TDS effluent concentration (R. p3).

If relief were granted as requested, Rexene claims that the maximum daily discharge of 15,000 pounds would have no significant effect on water quality in the DesPlaines River or on points downstream. The Agency supports Petitioner's contention with calculations indicating that a 15,000 pound/day increase in the mixing zone formed at the Rexene outfall would raise the TDS concentration by approximately 5 mg/l during 7-day 10-year low flow conditions without contribution to a violation of the stream's water quality standards (Rec. p3).

In further support of this variance, the Petitioner and the Agency cite the proposal of the Illinois Institute of Environmental Quality (IEQ) in R76-21 to delete the Rule 408 (b) TDS effluent limitation. The IEQ justifies elimination of the TDS effluent limitation on the basis, among others, that no other States regulate TDS except as a water quality standard. Furthermore, the IEQ cites studies of the Illinois Effluent Standards Advisory Group (IESAG) which states:

"There is no proven conventional technology for control of total dissolved solids in wastewaters. Application of non-conventional control technology is not warranted, on the basis of high treatment costs." (Rec. p4.)

The Board will accept parties' appraisal of existing conditions finding that it would be an arbitrary and unreasonable hardship to require Petitioner to comply with the TDS effluent limitation before ruling on R76-21. We find that the prudent course to be to grant a variance for two years or until the Board takes final action on R76-21 and to include interim requirements in Petitioner's NPDES Permit 0001619 as may reasonably be achieved through application of best practicable operation and maintenance practices at the Rexene facility.

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

ORDER

1. Rexene Styrenics Company is granted a variance for the operation of its Joliet manufacturing facility from Rule 408(b) of Chapter 3: Water Pollution Regulations until June 22, 1980, subject to the following conditions:

- a) This variance will terminate upon modification of Rule 408(b) of Chapter 3 in R76-21.
- b) During the period of this variance, Petitioner's effluent levels of total dissolved solids at its Joliet manufacturing facility shall not exceed 15,000 pounds per day maximum.
- c) Petitioner shall comply with modification of the total dissolved solids effluent limitations when adopted by the Board in R76-21.

2. Petitioner, within 30 days of the date of this Order, shall request Agency modification of NPDES Permit IL 0001619 to incorporate all conditions of the variance set forth herein.

3. The Agency, pursuant to Rule 914 of Chapter 3, shall modify NPDES Permit IL 0001619 consistent with the conditions set forth in this Order including such interim effluent limitations as may reasonably be achieved through the application of best practicable operation and maintenance practices in the existing facilities.

4. Within forty-five (45) days of the date of this Order, the Petitioner shall submit to the Manager, Variance Section, Division of Water Pollution Control, Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois, 62706, an executed Certification of Acceptance and Agreement to be bound to all terms and conditions of the variance. The forty-five day period herein shall be suspended during any judicial review of this variance pursuant to Section 31 of the Environmental Protection Act. The form of said certification shall be as follows:

CERTIFICATION

I, (We), \_\_\_\_\_ having read the Order of the Pollution Control Board in PCB 78-48 understand and accept said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

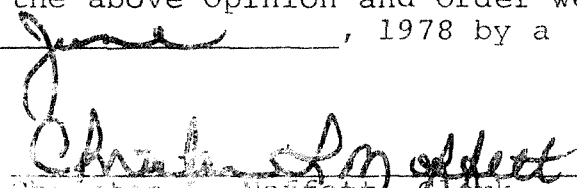
\_\_\_\_\_  
SIGNED

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

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 21<sup>st</sup> day of June, 1978 by a vote of 5-0.

  
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Christan L. Moffett, Clerk  
Illinois Pollution Control Board