

ILLINOIS POLLUTION CONTROL BOARD  
July 22, 1976

U. S. INDUSTRIAL CHEMICALS )  
 COMPANY, DIVISION, NATIONAL )  
 DISTILLERS AND CHEMICAL )  
 CORPORATION, )  
 )  
                     Petitioner, )  
 )  
                     v. )           PCB 76-78  
 )  
 )  
 ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
                     Respondent. )

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

This matter comes before the Board upon Petition for Variance by U. S. Industrial Chemicals Company (USI) for their chemical plant located in Tuscola, Douglas County, Illinois. The Petition for Variance was filed March 18, 1976, amended May 6, 1976, and a Recommendation by the Illinois Environmental Protection Agency (Agency) was filed on June 23, 1976.

USI requests variance from Rule 204(e) of Chapter 2 of the Air Pollution Regulations of the Pollution Control Board to permit the operation of 5 coal-fired boilers during the construction of a power plant stack pursuant to the terms and conditions of a construction permit issued by the Agency on February 25, 1976. The 5 coal-fired boilers generate steam for in-plant uses and generation of 40% of the electric power required by the plant. The 5 boilers currently burn about 1500 tons of washed coal per day, containing approximately 2% sulfur. USI's power plant is well within the requirements of Rule 204(c) (1) (B) (i), i.e., 6.0 pounds of SO<sub>2</sub> per million btu of actual heat input, but is not in compliance with Rule 204(e) due to an unfortunate configuration of the existing power plant stacks. USI's problem is apparently caused by the fact that they have 5 one hundred foot stacks each venting one of the 5 coal-fired boilers. The building which they serve is 80 feet high. In

order to prevent down wash affects from a building, good engineering practice indicates that a stack should be about 2 1/2 times the height of the closest building it serves.

USI proposes to achieve compliance with Rule 204(e) by constructing one 190 foot stack to serve all 5 boilers at an approximate cost of \$2,000,000.00. To that end USI requested and was issued a construction permit by the Agency on February 25, 1976 for the construction of the 190 foot stack to be completed some 70 weeks from the date of the construction permit. It is the Agency's opinion that the tall stack will achieve compliance with Rule 204(e) and that the 70 week construction period is reasonable.

Based upon modeling done by USI, the source, as it now exists, is capable of exceeding the national ambient air quality secondary standard. However, considering the data presented by USI and the comments made by the Agency in their Recommendation, it appears that the chance of violation of the standards is very small and therefore the potential environmental damage is de minimus in the eyes of the Board. USI compared the air quality in Douglas County and the air quality in neighboring counties of Macon and Sangamon in an attempt to show lack of violation of the primary standard, since no air quality sampling was available for Douglas County. The Board agrees with the Agency's estimation that no valid comparison can be made. However, considering that the potential violation of secondary standards is so slight and the overall SO<sub>2</sub> emissions from fuel combustion point sources in the county is so low (17,268 tons per year), the Board is of the opinion that the primary air quality standards for SO<sub>2</sub> are not likely to be violated by the present installation.

USI alleges that an ambient monitoring program was carried out during 1972 which indicated the ambient air quality met both primary and secondary standards at all times during the test period. Following the installation of electrostatic precipitators on its 5 boilers in 1973, USI applied for an operating permit for its power plant. In fact, between February of 1973 and June of 1975 USI applied no less than seven times for an operating permit, all of which applications were denied primarily due to the Agency's contention that SO<sub>2</sub> emissions from the boilers might exceed those allowed by Rule 204(e). In addition, USI alleges that it was in a dilemma due to the proposed change of Rule 204 by the Agency in R75-5 and the new amendment to the Environmental Protection Act (Section 10(h)) concerning the use of intermittent control systems in lieu of compliance with SO<sub>2</sub> emission standards. On June 12, 1975, the application for permit was resubmitted accompanied by a compliance plan which would permit the Petitioner to meet the emission requirements of Rule 204(e) with the use

of a tall single stack. After consultations with the Agency, USI filed an application for a construction permit to construct the single stack in December of 1975. The Agency subsequently granted USI's application for the construction permit and now recommends that variance be granted from Rule 204(e) until June 1, 1977 or until the new stack is completed, whichever is sooner, subject to certain conditions.

USI claims that in order to comply with Rule 204(e) it would be necessary to switch the power plant operation from coal to oil at an estimated increase in cost of \$67,000.00 per day. In addition, a capital expenditure of some \$2,500,000.00 will be necessary for the conversion of the facilities. Conversion to oil would also render useless \$2,000,000.00 worth of electrostatic precipitators installed by USI in 1973. Considering the proposed compliance plan, the arbitrary and unreasonable hardship which would be imposed by immediate compliance with 204(e) and the fact that USI has apparently pursued an operating permit with vigor, if not with success, the Board will grant the variance requested subject to certain conditions.

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

#### ORDER

It is the Order of the Pollution Control Board that U.S. Industrial Chemicals Company be granted variance from Rule 204(e) of the Air Pollution Regulations until June 1, 1977 or until completion of the proposed new stack, whichever event occurs sooner, subject to the following conditions:

- a. USI shall follow the construction schedule contained in the construction permit issued by the Illinois Environmental Protection Agency on February 26, 1976 which permit is hereby incorporated in this Order by reference as if fully set forth herein.
- b. USI shall submit progress reports to the Agency within 30 days after the date of this Order and every 90 days thereafter.
- c. Within 60 days of the date of this Order USI shall submit a performance bond to the Agency in the amount of \$100,000.00. Said bond shall be submitted to the Agency Control Program Coordinator in a form acceptable to the Agency.

d. Within 35 days of the Board's Order, Petitioner shall execute and forward to the Control Program Coordinator a Certification of Acceptance and agreement to be bound by all terms and conditions of the variance. The form of said Certification shall be as follows:

CERTIFICATION

I (We), \_\_\_\_\_ having read and fully understanding the Order of the Illinois Pollution Control Board in PCB 76-78, hereby accept said Order and agree to be bound by all terms and conditions thereof.

SIGNED \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

Mr. Dumelle dissented.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 22<sup>nd</sup> day of July, 1976 by a vote of 4-1.

Christan L. Moffett  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board