

ILLINOIS POLLUTION CONTROL BOARD
October 17, 1972

U. S. INDUSTRIAL CHEMICALS COMPANY)
DIVISION, NATIONAL DISTILLERS AND)
CHEMICAL CORPORATION)
) #72-292
)
v.)
)
ENVIRONMENTAL PROTECTION AGENCY)

OPINION AND ORDER OF THE BOARD (BY SAMUEL T. LAWTON, JR.)

This is a petition for variance from Order entered in Case #71-44, 2 PCB 591, dated October 14, 1971 as modified by our Order of January 24, 1972, 3 PCB 513. The petition relates to a proposed extension to May 30, 1973 with respect to the emissions of particulates and sulphur dioxide (SO₂) from petitioner's coal-fired boilers at its Tuscola, Illinois plant as will be more fully set forth in this Opinion. A review of the various petitions and orders previously filed and entered in this case is appropriate.

Our original October 14, 1971 Order provided as follows:

"IT IS THE ORDER of the Pollution Control Board that petitioner be granted a variance to exceed the particulate emission limitations set forth in the Rules and Regulations Governing the Control of Air Pollution, subject to the terms, conditions and time schedules hereinafter set forth:

1. Variance is granted to petitioner to operate its four uncontrolled coal-fired boilers in a manner causing emission of particulates in excess of the regulation limits pending the installation of five electrostatic precipitators, the first of which has already been installed. Two additional precipitators shall be installed and in operation by May 30, 1972. Emissions from all boilers on which precipitators have or will be installed shall meet particulate emission limits as set forth in the regulations. This variance shall extend to October 13, 1972, prior to which date petitioner shall have initiated installation of the two remaining electrostatic precipitators on Boilers #4 and #5 for operation by

May 30, 1973, and shall petition this Board 90 days in advance of expiration for an extension of this variance demonstrating that it has diligently pursued the time schedule for total installation as set forth in its variance petition.

2. Variance is granted to March 30, 1972 to operate the sulphuric acid plant in a manner causing particulate emissions in excess of those allowed in the Rules and Regulations Governing the Control of Air Pollution pending operation of the direct hydration alcohol plant. On March 30, 1972, the sulphuric acid plant shall be shut down. No virgin acid shall be manufactured for sale at any time when emissions from the sulphuric acid plant exceed maximum emission limits presently in force and effect in the Rules and Regulations Governing the Control of Air Pollution.
3. U. S. Industrial Chemicals Company, through an independent recognized consultant, shall establish, operate and maintain continuous monitoring stations for SO₂ for the period from April 1, 1972 to September 1, 1972, in the area where crop damage has occurred in the past. Within 30 days after September 1, 1972, the company shall file with the Board and Agency a program for the alleviation of excess SO₂ levels sufficient to cause plant damage. The Board shall issue a further order as required.
4. The Company shall, within thirty-five days after receipt of this Order, post with the Agency a bond or other security in the amount of \$500,000.00, in a form satisfactory to the Agency, which sum shall be forfeited to the State of Illinois in the event that the conditions of this order are not complied with or the facilities in question are operated after expiration of these variances in violation of regulation limits."

On January 24, 1972, on petitioner's motion, paragraph 1 of the October 14, 1971 Order was amended by the addition of the words:

"or the two boilers on which these precipitators are to be installed shall not be operated after May 30, 1972 so that emissions from these two boilers exceed maximum emission limits presently in force and effect in the Rules and Regulations Governing the Control of Air Pollution", following the words "two additional precipitators shall be installed and in operation by May 30, 1972".

The present petition filed on July 11, 1972 requests an extension of the original variance, as amended, with respect to the coal-fired boilers, to May 30, 1973, to permit completion of the installation plan for electrostatic precipitators on all five boilers. In support of the variance, petitioner sets forth that the first precipitator was installed and operational in June of 1971. The second precipitator was installed prior to May 31, 1972 and operational certification is "presently in progress with the Environmental Protection Agency." A third precipitator was installed and was to be operational in mid-July, 1972. Presumably, this precipitator is operational as of this date.

Petitioner further represents that by the end of July, 1972, it will have confirmed delivery of the fourth and fifth electrostatic precipitator from its supplier and erection of these remaining two precipitators will commence in January of 1973 in order to meet the May 30, 1973 deadline provided in our original order, subsequent to which date the boilers will not be operated in excess of existing particulate emission regulations.

The foregoing program is consistent with our original Order, as amended. We grant the variance as requested, subject to the terms and conditions more fully set forth below.

The recommendation of the Environmental Protection Agency proposes allowance of the variance as requested, subject to the following terms and conditions:

- "(a) Petitioner shall operate its uncontrolled boilers with fuel other than coal. When no fuel other than coal is available and use of uncontrolled boilers is necessary, Petitioner may use coal but shall submit a report to the Agency within one week of such use of coal with proof that such use of coal was necessary.
- (b) Petitioner shall submit monthly progress reports to the Agency and the Board.
- (c) Petitioner shall submit the results of stack tests performed on all five boilers to the Agency by June 30, 1973. Stack tests shall be performed by an independent testing agency and in a manner approved by the Agency. In addition to particulate emission rates, tests shall be made of control device efficiencies and sulfur emission rates.
- (d) Petitioner shall comply with all conditions of the Board's Order in PCB 71-44, as amended.

- (e) Bonds provided by Petitioner to secure performance of the Orders in PCB 71-44 shall be amended to additionally secure performance of whatever Orders may be entered in this case."

In the investigation portion of its recommendation, the Environmental Protection Agency makes several observations with respect to the activities of petitioner since the granting of the original variance. It notes that one of the precipitators that was to have been operational by May 30, 1972 was not operational until mid-July, 1972 and that the sulphuric acid plant was closed down on April 28, 1972, rather than March 30, 1972, as provided in our original Order. The Agency also comments on the various Orders entered with respect to the bond, but states that bonds were posted on June 15, 1972, which we must assume satisfied our various Orders in this respect. Accordingly, the amount and form of the bond does not appear to be a matter of present contention. More significant is the allegation made by the Agency that the boilers are not being operated at the present time so as to reduce particulate emissions to a minimum. Boiler #1 was shut down for maintenance to the turbine. Boilers #2 and 3, which do not have electrostatic precipitators, were being fired by both coal and gas. Emission rates were estimated to be 90.5 pounds per hour. Boiler #4 controlled by an electrostatic precipitator was being fired with coal and gas while Boiler #5 which has an electrostatic precipitator was being fired totally on gas. The Agency contends that petitioner is not making maximal use of its present precipitators by firing coal in those boilers with precipitators and gas in those boilers without precipitators. The Agency does not state whether Boilers #1, 4 and 5 are in compliance with particulate regulations. Stack tests made in July, 1972 are not available, and the failure of petitioner to furnish steam charts for the boilers or requested information on gas fuel usage prevents calculations of emission levels from boilers #2 and #3. The Agency observes "Persons contacted in the area expressed opinions that the air around the plant is cleaner due to the discontinuance of the sulfuric and phosphoric acid plants and to the decrease in particulate emissions from the power plant."

The petitioner has filed an objection to the observations made in the Agency's recommendation. It correctly observes that the modification of paragraph 1 of the Order excused the May 30, 1972 electrostatic precipitator installation if the emissions from the boilers do not exceed applicable particulate regulations and that the boiler referred to by the Agency was out of service by the Agency between May 30, 1972 and mid-July, 1972 when the precipitator was tied in. The failure to shut down the sulphuric

acid plant is acknowledged. Petitioner refers to a status report filed with respect to this operation, pursuant to our April 11, 1972 Order which detailed the difficulties in the phase-out of this operation, necessitating continuance of its operation until April 28, 1972. It likewise challenges the Agency's contention that it is not making maximum use of its present precipitators and available fuels to minimize particulate emissions, contending that gas fuel was distributed in the best possible manner to maintain present operation, when Boiler #1 was out of service and that gas was used in Boiler #5 when the precipitator was out of service. It further contends that it has furnished data to the Agency needed to evaluate its emissions.

On the facts before us, the deviations from our original Order are not sufficiently substantial to result in a denial of the variance extension. If violations of the Regulations or our Orders have taken place, appropriate remedies are available in a proper action. More significant is the recommendation of the Agency that "petitioner shall operate its uncontrolled boilers with fuel other than coal". This would appear to require a departure from our original order which anticipated the continuation of coal operation until final installation of electrostatic precipitators by May 30, 1973. Petitioner is pursuing its original program and we do not see any compelling reason for requiring a change in this respect. However, we will require petitioner to maximize the use of alternative fuels and report to the Agency within one week after each coal burning the circumstances and conditions necessitating the use of coal when coal has been used to the exclusion of alternative fuels.

The petitioner disputes the need for stack tests on all five boilers including sulphur emission rates. We will require stack tests on each boiler with respect to particulate emissions but accept petitioner's contention relative to SO₂ emissions feeling that by the furnishing of coal analysis and a daily fuel log, sulphur oxide emissions can be accurately calculated. We will keep the subject of SO₂ emissions open for further consideration as more fully set forth below and if the Agency can demonstrate that SO₂ emissions cannot be readily ascertained by the data submitted, we shall consider further the possibility of requiring stack testing for SO₂.

Pursuant to our October 14, 1971 Order, petitioner has submitted a report on results of continuous monitoring relative to SO₂ emissions, which concludes that no observable crop damage symptoms in the vicinity of petitioner's plant have resulted from SO₂ emissions. We have asked the Agency to file its response to this report. As of the date of this Order, this response has not been completed. Accordingly, we will retain jurisdiction of this matter for such other and further Orders as may be appro-

priate based upon the Agency's response to the SO₂ monitoring report as well as the possible need for stack tests of SO₂ emissions from the boilers if such requirement appears appropriate.

The phase-out of the sulphuric plant has undoubtedly improved this situation and we shall await the Agency's response before taking any further action in this respect.

This opinion constitutes the findings of fact and conclusions of law of the Board.

IT IS THE ORDER of the Pollution Control Board that variance granted to U. S. Industrial Chemicals Company Division, National Distillers and Chemical Corporation, by our Order of October 14, 1971 (71-44) as amended by our Order of January 24, 1972 granting petitioner the right to operate its four uncontrolled coal-fired boilers in excess of applicable particulate regulations pending the installation of electrostatic precipitators is extended from October 13, 1972 to May 30, 1973, subject to the following terms and conditions:

1. Petitioner shall diligently pursue its fuel burning program so as to maximize the use of fuels other than coal in its uncontrolled boilers, during the period of this variance. When coal is used as fuel in uncontrolled boilers, petitioner shall submit a report to the Agency within one week of such use, demonstrating that such burning of coal was necessary and that alternative fuels were not available.
2. Petitioner shall submit monthly progress reports to the Agency and to the Board with respect to the installation and operation of all electrostatic precipitators installed pursuant to this variance, as extended.
3. Stack tests shall be performed on all five boilers with respect to particulate emissions and submitted to the Agency by June 30, 1973. Such stack tests shall be performed by an independent testing agency in manner approved by the Environmental Protection Agency. Petitioner shall submit to the Agency its coal analysis, daily fuel log and such additional data as will enable a calculation of sulphur dioxide emission based on standard emission factors.

4. Petitioner shall comply with all conditions of the Order of the Board in Case #71-44, as amended, to the extent said provisions remain applicable.
5. Bonds heretofore provided by petitioner to secure performance of the Orders entered in #71-44 shall be amended to secure performance and compliance with all terms and conditions of this Order. Such bond shall be in form satisfactory to the Agency and shall be mailed to: Fiscal Services Division, Illinois Environmental Protection Agency, 2200 Churchill Drive, Springfield, Illinois 62706.
6. The Board retains jurisdiction for such other and further Orders as may be appropriate with respect to sulphur dioxide emissions based upon the Agency's response to report on results of continuous monitoring previously submitted by the petitioner and the Agency's capability of determining sulphur dioxide emissions on the basis of data furnished by petitioner to the Agency. Modification of this Order shall be considered on petition of either party hereto.

I, Christan Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted on the 17th day of October, A. D. 1972, by a vote of 5 to 0.

Christan L. Moffett