

ILLINOIS POLLUTION CONTROL BOARD  
May 8, 1975

FAIRBURY STONE COMPANY, INC., )  
Petitioner, )  
 )  
v. ) PCB 74-463  
 )  
ENVIRONMENTAL PROTECTION AGENCY, )  
Respondent. )

OPINION AND ORDER OF THE BOARD (by Dr. Odell)

On December 11, 1974, Fairbury Stone Company, Inc. (Fairbury Stone) filed with the Illinois Pollution Control Board (Board) a Petition for Variance from Rules 103(b), 202(b), and 203(b) of our Air Pollution Regulations (Chapter 2) for a period of one year.

Petitioner operates a limestone quarry on U.S. 24, 3 1/2 miles west of Fairbury, in Livingston County, Illinois. The operations consist of removing 12 to 18 feet of overburden, blasting the limestone rock vein that is 12 to 18 feet thick, transporting the shattered rock to the central processing plant, and screening and crushing in the processing plant, followed by storage and loadout for distribution via motor trucks to customers. The quarry produces approximately 225 tons per hour of stone in various size-classes. Normal production consists of one 8-hour shift per day, but during 1974 there have been some two 8-hour shifts per day of operation. Petitioner employs 8 to 10 persons.

On the basis of factors listed on page 8.2-1 of "Compilation of Air Pollutant Emission Factors, Second Edition," Petitioner estimated their total particulate emissions, if uncontrolled, to be as follows for various sources:

Primary crusher (225 T/hr x 0.5 lb/T)	=	112.5 lbs/hr
Secondary crushing and screening (90 T/hr x 1.5 lbs/T)	=	135.0 lbs/hr
Screening, conveying, and handling (225 T/hr x 2.0 lbs/T)	=	<u>450.00</u> lbs/hr
Total uncontrolled emissions	=	697.5 lbs/hr

The suspended emissions from the primary crusher and the secondary crushing (cone crusher or hammermill and impact crusher) and screening would amount to the following, using the given emission factors (no factor given for screening, conveying, and handling):

Primary crusher (225 T/hr x 0.1 lb/T)	=	22.5 lbs/hr
Secondary crushing and screening (90 T/hr x 0.6 lb/T)	=	<u>54.0</u> lbs/hr
Suspended emissions	=	76.5 lbs/hr

Because of several modifications in processing, which are intended to reduce particulate emissions, Petitioner believes its actual particulate emission rates are less than those listed above for uncontrolled emissions.

Fairbury Stone believed that it was operating in compliance with applicable regulations when it filed an Operating Permit Application with the Illinois Environmental Protection Agency (Agency) on October 17, 1972. This belief was based on the fact that after Agency personnel inspected the plant on June 17, 1971, and August 1, 1972, the inspector indicated to the plant superintendent that "the plant appeared to be in compliance." However, between October 17, 1972, and June 27, 1973, there were eleven exchanges between Petitioner and the Agency concerning the Operating Permit Application, which continued under review. From June 27, 1973, to April 17, 1974, there was no communication between Petitioner and the Agency. Beginning again on April 17, 1974, the Operating Permit Application was under active consideration, but on August 30, 1974, the Agency denied the Permit Application "as final action because the application of emission factors showed that the primary crusher and the hammermill would emit particulate matter in excess of the rate allowed by Rule 203(b)" of Chapter 2. Thereafter, the Agency informed Fairbury Stone that enforcement action might be initiated because Petitioner was operating without a valid permit and probably was exceeding applicable particulate emission limitations. After consultations with the Agency and Myers Engineers (concerning possible particulate control methods), Petitioner sent a letter on October 31, 1974, to Mr. Thomas Casper in the Agency informing him that Fairbury Stone intended to file for a variance and install a control system. On November 7, 1974, the Agency received from Petitioner a Construction Permit Application for a liquid spray dust-suppression system and on December 2, 1974, the Agency granted this Construction Permit.

The Agency filed its Recommendation with Board on February 7, 1975. The Agency feels that the estimated particulate emissions in the Petition for Variance are reasonable. "The existing control equipment at Fairbury Stone consists of a rudimentary device, the shielding of transfer points on the conveying system; and a more efficient system, the recirculation of discharge air on the hammermill and Stedman mill. The Agency estimates that the recirculation systems are 50% and 75% effective for the secondary crushing and Stedman milling processes, respectively, when properly maintained." The liquid spray dust-suppression system, which is to be installed by Petitioner under the Construction Permit that was granted by

the Agency on December 2, 1974, should reduce particulate emissions from the primary crusher, cone crusher, and hammer-mill to the 90% efficiency level if the system is operated properly. This would achieve compliance with Rule 203(a) of Chapter 2, which the Agency properly pointed out as being applicable in this case, rather than Rule 203(b). Although Fairbury Stone was an "existing source", it does not meet either of the conditions of Rule 203(c); therefore, Rule 203(a) applies.

Two problem areas remain. The Agency felt that the liquid spray dust-suppression system could be installed by July 1, 1975, instead of August 15, 1975, as the Petition for Variance stated. Also, the load-out area for Stedman mill limestone was believed to have excessive particulate emissions. Therefore, the Agency suggested that additional measures be taken to control Stedman load-out emissions and suggested alternative methods to achieve this. Stedman mill limestone, which is the most finely ground and therefore easily airborne, comprised approximately 30 tons per hour of the total 225 tons per hour maximum which can be processed. Because of these two remaining deficiencies, the Agency recommended that the Petition for Variance be denied unless Fairbury Stone submits a better program of compliance.

In a communication to the Board filed February 28, 1975, Petitioner agreed to install the liquid spray dust-suppression system by July 1, 1975. Petitioner also stated that it (a) is engaged in discussions with the Agency regarding possible control systems for the Stedman load-out area, (b) expects to file an amended variance petition in this matter, and (c) waives the right to a decision within 90 days. On March 6, 1975, the Board considered Petitioner's communication of February 28 as a Motion for Leave to File an Amended Petition and granted this Motion.

The Amended Petition for Variance was received by the Board on March 10, 1975. In it Fairbury Stone agreed "to install a dust control system on the Stedman load-out which will consist of the use of a spray header to provide a liquid curtain to surround the Stedman bin discharge as trucks are loaded. Said liquid curtain will act as a wind shield and will limit emissions by wetting and collecting fugitive particulates from the load-out operation." A Construction Permit Application and a description of this equipment has been filed with the Agency.

An Amended Recommendation from the Agency was received by the Board on April 8, 1975. Since the Amended Petition for Variance resolved the two problems which the Agency objected to in its original Recommendation, the Amended Recommendation of the Agency is that Fairbury Stone be granted a variance from Rule 203(a) until July 1, 1975. The Agency stated that it will grant the Construction Permit to Petitioner for the dust control system for the Stedman load-out area.

The Agency has received no objections to the granting of this variance, which may be partly due to the fact that Fairbury Stone facilities are in a primarily agricultural area. The nearest resident is located approximately one-quarter mile northwest of Fairbury Stone.

From October 17, 1972, until August 30, 1974, there was considerable delay by both the Agency and Petitioner in resolving issues associated with the Operating Permit Application of Fairbury Stone. However, since October, 1974, Petitioner has developed an adequate program to control particulate emissions from its facilities. Under the circumstances in this case, the Board agrees that Fairbury Stone should be granted a variance from Rule 203(a) of Chapter 2 through June 30, 1975. In the absence of a specific time schedule in the Amended Petition for Variance or in the attached single page from the Construction Permit Application for the Stedman load-out dust control system, we will grant Petitioner a variance from Rules 103(b) and 202(b) through June 30, 1975. If a variance is needed beyond July 1, 1975, the requirements set out in Train v. National Resources Defense Council 43 LW 4467 (April 15, 1975) must be met. Petitioner's request for a variance from Rule 203(b) is dismissed for the reasons previously explained.

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


ORDER

IT IS THE ORDER of the Illinois Pollution Control Board that:

1. Fairbury Stone Company, Inc. is hereby granted a variance from Rules 103(b), 202(b), and 203(a) of Chapter 2, Air Pollution Regulations from December 11, 1974, through June 30, 1975.

2. Petitioner's request for a variance from Rule 203(b) of Chapter 2, Air Pollution Regulations, is hereby dismissed.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 8<sup>th</sup> day of May, 1975, by a vote of 4-0.

  
Christan L. Moffett, Clerk  
Illinois Pollution Control Board