

emitting 123,000 tons of particulates per year from all point and area sources. This amounts to 23% of the particulates in the County. Following its April investigation the EPA commenced a program of air monitoring and at that time recommended that we make no decision on the variance request until the results of the air monitoring were known.

In April Petitioner said it was willing to operate kiln no. 3 at 60% of capacity (900 tons of feed per day) until the precipitator had been repaired. When operated at that rate, particulate emissions from kiln no. 3 are 6,500 lbs. per hour. Petitioner said it could not serve its customers if it reduced operations below 60%. Kiln no. 3 produces about 12% of all Portland Cement produced by Marquette in the United States. The Company claimed it would lose one million dollars in business and seriously damage customer relations if kiln no. 3 were completely shut down. According to Marquette a shut-down would cause fifty employees to be thrown out of work and would damage the economy of the Oglesby area.

The air monitoring program conducted by the EPA involved hi-vol air samplers and meteorological equipment placed in Oglesby. These revealed that when the wind blew from the plant toward town the particulate levels in Oglesby were dangerously high. Readings were recorded as high as 4,468 micrograms per cubic meter for a 24-hour period. As an average, when wind conditions were right, air samples were 600 to 900 $\mu\text{g}/\text{m}^3$ for a 24-hour period. Readings were far in excess of the 260 $\mu\text{g}/\text{m}^3$ which may be exceeded only once per year. Negotiations between the EPA and Marquette resulted in reduction of the feed rate to kiln no. 3. Finally, Marquette voluntarily shut down kiln no. 3 on May 26, 1973.

The Agency filed an Amended Recommendation requesting that we deny the variance. Marquette then requested that we postpone our decision in order to give Marquette an opportunity to perform tests upon the hi-vol samples which were obtained by the Agency. The tests were apparently to determine whether the high concentrations of particulates were actually emissions from the Marquette plant. Petitioner said "In view of the fact that it will take several weeks to complete these tests, Marquette requests a continuance until July 12, 1973 before the Board determines whether or not Marquette's Petition for Variance Extension should be granted. During this period Marquette will continue to maintain its kiln no. 3 completely shut down so that the emissions which the Agency found a hazard and objectionable will not exist". We granted a three-week postponement and

subsequently granted 4 additional delays at the request of Petitioner Marquette.

Marquette has not submitted any additional information to us regarding the samples or its testing program. However, Petitioner has had ample opportunity to obtain the information requested and since the decision is now due we will decide the case on the record which was presented.

The variance is granted to May 26, 1973 the date when Marquette voluntarily shut down kiln no. 3. We cannot accept particulate readings at the levels found in this case, but under all of the circumstances do not believe Marquette should be prosecuted for emissions prior to May 26, a period of time when the Company was either under variance or was cooperating with the EPA in attempts to solve its problem.

We do not grant a variance for Marquette's operation after May 26, 1973. Any subsequent operations in violation of the Regulation or Statute are subject to prosecution. It seems right to us that such liability attach on May 26, 1973 when Marquette had obviously been advised of the danger to citizens in the community from continued operations of kiln no. 3 without the electrostatic precipitator.

After requesting delays more than ample for its testing purposes, Marquette has chosen not to submit its test data to us. This leaves the Agency evidence and its inferences un rebutted. Our conclusion is that emissions from Marquette when kiln no. 3 is operated without the precipitator are capable of causing damage to the health of citizens in Oglesby. The Code of Federal Regulations October 23, 1971, page 20513, indicates that concentrations of particulates in excess of 1,000 micrograms per cubic meter for a 24-hour average are capable of causing significant harm to the health of people exposed to such readings.

According to Robert Poggrund, Associate Professor of Occupational and Environmental Medicine at the University of Illinois Medical Center, School of Public Health, those medical effects in this case could include: increase in frequency and severity of respiratory diseases, bronchial irritation, inflammation of the air passages in the lungs.

The stack attached to kiln no. 3 is low. A higher stack would allow for more dispersion of the particulates. Furthermore, the natural terrain in the area adds to the problem for

the citizens of Oglesby. The stack attached to kiln no. 3 is just 500 feet above sea level but Oglesby is about 630 feet above sea level. Since the stack is below Oglesby ground level, the particulate readings at ground level in Oglesby will be significantly higher than they would be if kiln no. 3 had a higher stack.

Marquette has cooperated in the control of its emissions. That cooperation and the fact that the loss of the precipitator could not have been anticipated, persuade us to grant a shield from any prosecution for the emissions between the fire and May 26, 1973. We must be absolutely sure, however, that such dangerous levels of air contamination do not continue. Kiln no. 3 should not be operated without an electrostatic precipitator. The variance will not extend to operations subsequent to May 26, 1973.

ORDER

It is ordered that:

Petitioner Marquette Cement Manufacturing Company be granted an extension of the variance from particulate regulation until May 26, 1973. This variance shall not extend beyond said date and especially shall not authorize the operation of kiln no. 3 after May 26, 1973 without an effective and functioning electrostatic precipitator.

Mr. Dumelle dissents.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order was adopted this 20th day of September, 1973 by a vote of 4 to 1.

Christan L. Moffett