

ILLINOIS POLLUTION CONTROL BOARD  
February 17, 1971

MEDUSA-PORTLAND CEMENT CO. )  
 )  
 v. ) #70-27  
 )  
 ENVIRONMENTAL PROTECTION AGENCY )

OPINION OF THE BOARD (BY MR. LAWTON):

Medusa-Portland Cement Co. filed a petition for variance received by the Board on October 23, 1970. Waiver of the statutory provision requiring Board action within 90 days (Section 38, Environmental Protection Act) has been filed. After hearing held on the petition, we grant a variance subject to the terms and conditions hereinafter set forth.

Medusa-Portland Cement Co. manufactures and sells Portland cement at its plant in Dixon, Illinois. Portland cement is manufactured by combining limestone, clay, sand and slag in predetermined proportions, which materials are then crushed and pulverized in grinding mills to produce "kiln feed" (R-8). Approximately 1900 tons of raw material are processed daily. This procedure is performed in a rotary kiln where the kiln feed is heated to 2800° F., which through chemical and physical changes produce cement clinker. The clinker is then pulverized in grinding mills to make the finished product known as Portland cement. Three of the Dixon kilns are preceded by pre-heaters whereby the kiln feed is brought into contact with hot gases for efficient transfer of heat. The kilns are fired with gas from April 15 to October 11 and coal between November 11 and April 15. (See Petition dated October 15, 1970). The gases leaving the pre-heater kiln include the products of combustion of the fuel, carbon dioxide released through calcination of the limestone and dust particles entrained from the materials in the kilns by the gases passing through them. The total volume of gases is about 120,000 SCFM. The particulate matter carried by the gases amounts to about 8 tons per hour (Pet., 10/15/70). The emissions reaching the ambient air amount to approximately 3500 pounds per hour, greatly in excess of particulate emissions set forth in Rule 3-3.111 of the Rules and Regulations governing the control of air pollution remaining in force and effect pursuant to Section 49c of the Environmental Protection Act. (See petitioner's Exhibit 26, Page 2.) The evidence indicates that the operation emits a plume of 100% opacity, 500 yards in length, which diffuses over a distance of up to five miles (R-201).

The Medusa plant at Dixon has four kilns, of which three are Fuller Humboldt pre-heater kilns referred to as Nos. 1, 2 and 3, installed in 1957, and one conventional straight kiln, No. 4. The pre-heater kilns are equipped with an electrostatic precipitator ("ESP"). The conventional straight kiln is equipped with a mechanical cyclone followed by a glass fabric dust collector and is in compliance with the regulations. (See testimony of Charles Howlett (R-48-55). Supplemental statement of Petitioner). The variance request is to obtain sufficient time to install specific abatement equipment on the three pre-heater kilns to achieve compliance with the emission regulations, in accordance with the time schedule hereinafter set forth. A detailed review of the events leading up to the present petition is necessary.

On October 12, 1967, Petitioner filed a letter of intent with the Air Pollution Control Board relating to its entire Dixon operation noting that the precipitator installed in pre-heater kilns Nos. 1, 2 and 3 was only 90% efficient. The letter stated that Medusa intended "to seek and add any technical improvements that could be incorporated with our present dust collection systems for these pre-heater kilns". The record does not disclose what transpired during the next 14 months.

On December 27, 1968, Petitioner was advised by the Technical Secretary of the Air Pollution Control Board that the air contaminant emissions reduction program (Acerp) dated October 12, 1967, could not be recommended to the Board for approval because it specifically lacked specification of precisely what Petitioner proposed to do to abate pollution and failed to include any timetable to achieve compliance. On January 20, 1969, a new proposed air contaminant emission reduction program was submitted to the Air Pollution Control Board, again listing several alternatives that were under consideration by Petitioner but containing no specific program for compliance. This so-called air contaminant emission reduction program was again rejected by the Technical Secretary of the Air Pollution Control Board for inadequacy.

On June 30, 1969, a public hearing was authorized by the Illinois Air Pollution Control Board to consider appropriate action because of Petitioner's failure to submit an adequate air contaminant emission reduction program. On July 15, 1969, Medusa wrote to the Air Pollution Control Board stating: "We have been conducting the necessary tests and engineering on the most effective and practical method of reducing the emission of dust from our Dixon plant. From the information presently available on plant data and from engineering performed by suppliers of dust reduction equipment, we plan to reduce the emission of dust to an acceptable level in 1971."

On July 18, 1969, the Technical Secretary of the Air Pollution Control Board answered stating that Petitioner was in violation of the Board's Rules and Regulations and advising Petitioner that the Board was proceeding with arrangements for a public hearing, but that upon receipt of an acceptable Acerp such hearing would be cancelled.

On August 6, 1969, a revised dust emission control program was submitted to the Air Pollution Control Board. This proposal detailed the existence of the pre-heater kilns, the inadequacies of abatement procedures, and the installation of spray towers and automatic voltage control regulators to achieve partial abatement. The new proposal provided for the installation of a glass bag-type dust collector for kilns Nos. 1 and 3 and the continuation of the existing electrostatic precipitator for kiln No. 2, coupled with the installation of a wet scrubber ahead of the ESP. These improvements were scheduled through 1970 and provided for completion by December of 1971, with field testing and measurement completed by March, 1970 (Environmental Protection Agency Exhibit 1). This Acerp was approved by the old Air Pollution Control Board on August 28, 1969. Progress reports on the status of the installation were required.

The first progress report was submitted on July 19, 1970, indicating that engineering drawings had been received for the proposed installation and that negotiations were being conducted with Northern Illinois Gas Company for conversion to gas firing of kilns 1, 2 and 3, during the period of April 15 through November 11. On July 1, 1970, the new Environmental Protection Act went into effect. On August 3, 1970, Petitioner wrote to the Director of the newly-created Environmental Protection Agency submitting a further status report indicating its expectation that the installation of the necessary emission abatement equipment would be completed by the dates originally proposed. On September 17, 1970, Petitioner wrote to the Environmental Protection Agency proposing a modification of its Acerp by the installation of a Dracco glass bag dust filter to supplement the existing electrostatic precipitator for all three pre-heater kilns. The new arrangement would be 99.7% efficient. This program modified the earlier Acerp which had provided for the existing ESP to remain in conjunction with kiln No. 2 alone and the new bag house to be installed on kilns 1 and 3 only. The new plan called for one large bag house collector serving all three kilns with the retention of the ESP, producing a greater efficiency in removal of particulate matter; the coarse particles would be removed by the ESP and the super-fines removed by the bag house (See Petitioner's Exhibit 28, Supplemental Statement of Medusa-Portland Cement Co., Page 6.) The modified plan would cost approximately \$800,000.00 installed, being \$200,000.00 more than the original Acerp proposed.

On September 30, 1970, Petitioner was advised by the Environmental Protection Agency that the modification constituted a request for variance and that a new petition should be filed consistent with the Act, and Regulations of the Pollution Control Board. The Agency correctly interpreted the former Air Pollution Control Act and the present Act, both of which limit variances to a one-year period. Since an Acerp is a variance, one granted in August of 1969, had expired prior to the September 17, 1970 communication, which can only be construed as a new request for variance. (See Environmental Protection Agency v. Commonwealth Edison Co., #70-4, decided this day.)

On October 15, 1970, Petitioner sent a letter to the Environmental Protection Agency requesting "an extension of variance" granted by the Board on August 28, 1969. The letter contained a description of the operation of the pre-heater kilns, the daily processing of 1,907 tons of raw material and a description of the existing equipment. The letter again proposed modification of the original Acerp by providing for the installation of a glass cloth bag-type filter to control all emissions from the three pre-heater kilns. The letter indicated that equipment orders had been placed, including an order with the Fuller Company for the bag house, in the amount of \$246,000.00. The schedule provided for installation of all equipment and ducting with the ESP by December of 1971, which timing was consistent with that provided in the original Acerp, as approved. An additional period to March of 1972 was requested for field testing of the entire dust collection system.

On October 30, 1970, a letter supplementing the October 15, 1970 letter was sent to the Agency stating that insistence on immediate compliance with the emission regulations would necessitate reducing the operation of the plant by two-thirds, resulting in the loss of 2.2 million barrels of cement production and sales in the amount of \$7,700,000, the income from which would be necessary to pay for the installation of proposed pollution abatement equipment. It was estimated that in excess of 180 employees would be unemployed and the loss to the community of Dixon and the State would be in excess of several million dollars. Petitioner stated that the loss of such cement production would have a detrimental effect on the construction industry in the state.

Pursuant to the Act, the Environmental Protection Agency filed its recommendation, urging that the petition be denied on the grounds that Petitioner could operate its plant at a "substantial production rate" in compliance with the Act, that Petitioner has engaged in a dilatory campaign and "is no closer to compliance today than it was in 1967". The Agency contends that the evidence fails

to show that Petitioner's time schedule is the most expeditious possible and that there is substantial injury to the public as a result of Petitioner's operation. The Agency's investigation notes a substantial number of letters from citizens in the community, complaining of Petitioner's emissions and indicating opposition to granting of the variance extension.

However, persons contacted by the Agency in the area indicated their willingness to have the plant remain in operation until brought into compliance. The report noted that approximately 750 people depend on Medusa-Portland Cement Co. for their support. Hearing was held on the variance petition in the City Hall, Dixon, Illinois, on December 1-, 1970.

The Board is asked to approve a program initiated in 1967 which, according to the Petitioner, will not be completed until March of 1972. While the fault for this delay is principally that of the Petitioner, it must be shared by the old Air Pollution Control Board and its staff, which did not communicate a sense of urgency to Petitioner or take appropriate action to obtain and implement a definitive program. However, after inordinate procrastination, sparring and negotiation, Petitioner did submit an Acerp which was approved by the old Air Pollution Control Board. It now seeks to implement this program and the time schedule incorporated in it. This request we must now consider, not as an original proceeding, but within the framework of the events having already taken place and particularly, the steps taken by Petitioner in furtherance of its approved program. Petitioner is seeking to adhere to the time schedule originally approved, but to install facilities that will have improved capabilities of pollution abatement beyond those originally contemplated.

The evidence adduced at the hearing substantiated the character of Petitioner's operation as above set forth, the ineffectiveness of the existing abatement facilities to adequately control the pre-heater kilns emission and the desire to pursue the pollutional abatement program as modified. The plant is located in a sparsely populated area east of Dixon. Evidence in the record details the magnitude of the emissions from Petitioner's operation but the record is meager on the degree of impact produced by the emissions on the residential properties. The prevailing wind direction appears to be away from the populated area. The record contains some evidence as to the toxic effect of cement dust, both pro and con. (See testimony of Prince, R-205), (MPC Ex. 27A-1). However, we find the evidence introduced by both parties on the subject of toxicity inconclusive and unpersuasive. At the hearing, the Agency reiterated its recommendation that the variance be denied, but that if it be allowed that it be only for a six-month period. A representative of the Attorney General stated that his office concurred with the recommendation of the Environmental

Protection Agency (R-32).

While it is inexcusable for the company to have taken almost five years to reach its present proposal, the Board must consider the variance program in light of the current factual situation and determine whether Petitioner's proposed program, or some modification thereof, is compatible with the statutory requisites for the allowance of a variance. The evidence supports the principal allegations of the variance request insofar as it details the nature of Petitioner's operation, the inadequacies of the present abatement equipment, the proposed program for installation of a suitable bag house facility, and the time schedule calling for complete installation by the end of December, 1971. The inability to operate in excess of 30% capacity in event of a shut-down of the offending kilns is supported by the record (R-87, and 177.) Furthermore, the desirability of the modification set forth in the September 17, 1970 letter is adequately demonstrated (R-59).

Evidence introduced by the Petitioner included the purchase contracts, orders of the abatement equipment (Ex. 1 through 23 ), and the authorization by Petitioner's corporate directors to spend \$800,000.00 for the acquisition and installation of the equipment at the Dixon location. At the request of the Hearing Officer, a supplemental statement was submitted restating Petitioner's intention to adhere to the time schedule proposed, describing the glass fabric dust filter to be obtained from the Fuller Company at a cost of \$250,000.00 and itemizing the additional purchase orders already issued exceeding \$400,000.00. A photograph was included showing concrete footings already poured to accommodate the installation. Requests for bids on mechanical and structural erection will issue currently. The time schedule for specific erection of the equipment on the site provides for installation beginning in April, 1971, and completion by October 31, 1971, with tie-in of the newly-erected equipment to the existing kiln system and the present ESP completed by December 31, 1971. The break-in and testing period will, according to Petitioner, require an additional three months after final installation.

William F. Troutman (R-148), Director of Corporate Development, stated that \$800,000.00 had been allocated for this project. He asserted that elimination of production from kilns Nos. 1, 2 and 3 would reduce production to 30% of capacity and result in operation costs double the revenue from such production. The alleged hardship included not only the asserted loss of revenue to the company, but the resulting unemployment of personnel, the inability to furnish needed concrete to customers and the significant impact on the economy of the immediate community and the State. This witness suggested that even partial cessation of operation would enable competitors to move in on Petitioner's market with the likelihood that such

event would result in an ultimate shut-down of Petitioner's entire Dixon operation (R-157).

One disturbing feature of this case does not appear in the record but must be noted. The recommendation of the Environmental Protection Agency states that the Agency had received numerous complaints concerning the impact of Petitioner's operation on the community. Both the Agency and this Board have received communications commenting on the unpleasant attributes of Petitioner's particulate emissions. The hearing was publicized through the Board Newsletter and public newspaper notice, and received wide coverage in the local press. In excess of 100 people attended the Hearing. However, not a single person appeared to express opposition to the proposed variance or informed the Board with regard to the impact, if any, produced by Medusa's particulate emissions on personnel or residential areas. A representative of the local radio station, the president of the local bank and employees of the company all appeared in support of the proposed variance. A suggestion was made by one witness that the action of the Agency and the Board in seeking to bring Petitioner into compliance with the relevant statutory and regulatory provisions was "harassment". (R-132). While the Board does not draw any implications from the foregoing circumstances, it should be noted that the time and place to voice one's concern in the matter of a specific operation should be at the Hearing. It is only through this procedure that the Board can be informed of the true factual situation in terms of the impact of the facility upon the community.

The Board's decision, however, can only be based on what is disclosed in the record. Failure to adequately inform the Board not only makes difficult the arrival at a just decision but constitutes a disservice to the community itself. Citizen concern and interest is meaningless if not communicated to the Agencies mandated to protect the public interest.

It is the decision of the Board that while Applicant has been extremely dilatory in proposing and implementing a valid abatement program, it has, at last, embarked upon a schedule that will bring the Dixon operation into compliance with the law. The projected time schedule, in consideration of the present circumstances, is not unreasonable. The evidence indicates that shutting down the operation to the extent of 70% would impose upon the applicant, the community, its employees, and the local economy hardships disproportionate with the benefit achieved by such shut-down. This case differs from Marquette Cement Co. v. Environmental Protection Agency, #70-23 (decided January 6, 1971) in which we imposed a \$10,000 penalty as a condition of a variance, in that here, the delay in commencing a control program was essentially forgiven when the Air Pollution Control Board approved Medusa's Acerp. We have not been asked to

grant additional time beyond that allowed by the old Board.

The Board has considered the character and degree of injury to the public health and general welfare of people in the immediate area and the social and economic value of the pollution source. It believes the proposed installation and abatement schedule to be practical and economically reasonable in eliminating the pollution source. While this proceeding is by way of variance and not an enforcement action, the foregoing facts must be considered in arriving at our decision. Failure to grant the variation would enable such enforcement action to be instituted where the foregoing matters would be the subject of consideration. This opinion constitutes the finding of fact and conclusions of law by the Board.

#### ORDER

The Board having considered the transcript and exhibits in this proceeding, hereby grants the petition of Medusa-Portland Cement Co. for a variance subject to the following terms and conditions:

1. Medusa-Portland Cement Co. shall be allowed to operate its pre-heater kilns Nos. 1, 2 and 3, thereby producing particulate emissions in excess of the relevant particulate emission limitations set forth in the Regulations of the Air Pollution Control Board for a period ending December 31, 1971.
2. On December 31, 1971, Medusa-Portland Cement Co. shall have completely installed the new glass fabric dust collector in conjunction with the existing electrostatic precipitator so as to bring its operation into compliance with the relevant particulate emission regulations. Medusa-Portland Cement Co. shall adhere to the schedule of installation as set forth in its letters to the Environmental Protection Agency of October 15, 1970 and October 30, 1970, as implemented by supplemental statement of Medusa-Portland Cement Co. filed herein, and shall file with the Agency and this Board reports, every two months, of its progress reflecting the status of all equipment ordered and received and the installation of all facilities on the premises.
3. Medusa-Portland Cement Co. shall post with the Environmental Protection Agency, on or before March 15, 1971, in such form as the Agency may find satisfactory, a personal bond or other adequate security, in the amount of \$100,000.00, which sum shall be forfeited to the State of Illinois in the event that the plant in question is operated after January 1, 1972 without an extension of this variance and without control equipment sufficient to reduce emissions to those permitted by the Regulations.



4. Emissions shall not be increased above the levels disclosed in the form submitted by Medusa-Portland Cement Co. in connection with its letter of intent (Environmental Protection Agency, Exhibit 1) during the period of this variance.

5. The failure of the company to adhere to any of the conditions of this order shall be grounds for revocation of the variance.

6. Petition for variance or modification of this Order shall be filed no later than November 1, 1971.

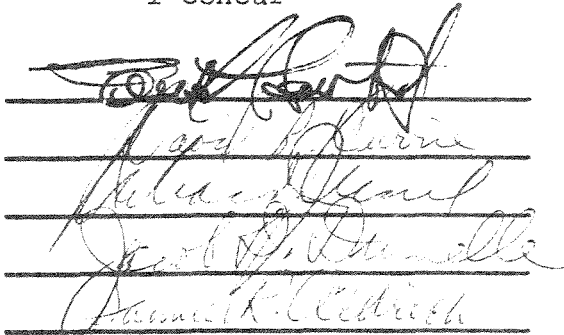
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I, Regina E. Ryan, certify that the Board adopted the above opinion and order Feb. 17, 1971.

  
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I Concur

I Dissent

  
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