

ILLINOIS POLLUTION CONTROL BOARD
August 29, 1972

NEW JERSEY ZINC CO.)
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 v.) # 71-362
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 ENVIRONMENTAL PROTECTION AGENCY)

Mr. Richard W. Austin and Mr. Eugene W. Beeler, (Winston & Strawn),
for New Jersey Zinc Co.;
Mr. Prescott E. Bloom, Special Assistant Attorney General, and Mr.
Timothy Elder, Staff Assistant to Assistant Attorney General, and
Mr. Delbert Haschemeyer, for Environmental Protection Agency.

Opinion and Order of the Board (by Mr. Currie):

New Jersey Zinc is the owner of a plant in DePue, Illinois, in which sulfuric acid was manufactured and used for the production of phosphate fertilizers. The plant was closed in 1971 (see attachment of Blan W. Hale to petition, p. 7); the company petitioned us in November 1971 for permission to reopen it, indicating that the Environmental Protection Agency would not allow reopening unless further provisions were made to control the emission of sulfur dioxide and alleging that compliance with Agency requirements would impose an arbitrary and unreasonable hardship.

No numerical standard for sulfur dioxide emissions was in effect when the petition was filed, although the statutory prohibition against air pollution applied to sulfur dioxide, EPA v. City of Springfield, #70-9 (May 26, 1971). The Agency had just proposed, however, a new regulation that would limit emissions from new sulfuric acid plants to 6.5 pounds of sulfur dioxide per ton of 100% acid produced and from other process sources (including existing acid plants) to 1500 ppm (see Board Newsletter #35, Nov. 10, 1971, Proposed Standards #R 71-23, Rule 204(d)(1)). The attached explanation recited that the standard for new plants could be met by providing "multistage systems of 99.5% conversion efficiencies," Newsletter #35 at p. 30. The company's petition indicated that it was this proposed new-plant standard that the Agency attempted to impose as a condition of reopening the DePue plant and from which relief was sought. The Agency's recommendation that the variance be denied confirmed this, stating that 99.5% conversion would be required.

The complexion of the New Jersey Zinc case changed considerably as hearings on the variance petition and the proposed regulations simultaneously proceeded. Among other things, the

Agency revised its proposed sulfur dioxide standard, and the company decided to seek a variance with regard to sulfuric acid mist as well. Briefs were filed. The company amended its petition to request sulfur dioxide emissions of 1800 ppm or 27 pounds per ton of acid produced; acid mist emissions of 0.5 pounds per ton of acid produced; and permission to exceed the latter standard for 26 weeks until a new demister could be installed. The Agency argued that a better demister should be obtained to meet the then proposed acid standard of 0.2 lb/ton and that, on the basis of mathematical prediction utilizing relevant emission and meteorological data, excessive atmospheric concentrations of sulfur dioxide would result under adverse weather conditions if the requested emissions were allowed.

Representatives of both parties attended an open Board meeting in which all issues were discussed. Board members informally indicated that the DePue plant would probably be subject to the rules governing existing rather than new plants and that the 1500 ppm standard should probably be revised to 1800, which would moot the request for variance from the sulfur dioxide emission standard. Concern was expressed that the entire petition, except as it related to statutory air pollution, might be premature in that no regulations had yet been adopted, cf. Granite City Steel Co. v. EPA, #72-34 (Feb. 7, 1972), but that the statutory requirement that the Board decide within 90 days after filing of the petition might make it impossible to postpone decision until adoption of the regulations. Pursuant to discussion among Board members and staff engineer Richard Wadden, Board members suggested that the petition should be denied due to prematurity and due to the failure of the company to convince the Board on the following three contentions: First, that contemplated emissions in excess of the proposed limits during startup of the plant were justifiable; second, that installation of a demister that would meet the acid standard was economically unreasonable; and third, that dangerous atmospheric concentrations of sulfur dioxide would be avoided during adverse meteorological conditions.

The company thereupon moved that the Board defer final action pending adoption of the regulations and authorize another hearing in which evidence could be presented on the points raised by the Board. In light of the prematurity of the case as it stood, the incomplete state of the record, and the company's agreement to waive its right to a decision within 90 days, the Board granted the motion for further hearing. New Jersey Zinc Co. v. EPA, #71-362 (Feb. 17, 1972).

Since that time the company has reexamined the issues we raised and has presented a thoroughly revised and improved petition that the Agency recommends we grant. The company moves that we dispense with the requirement of a further hearing, and the Agency does not object to that course. We find that the revised petition and the Agency's position

render the variance request moot and make a further hearing unnecessary. We shall recite the relevant facts and considerations at some length both to demonstrate why we believe the case is moot and because what has been achieved in this case should serve as a precedent for what can be done at similar installations in other cases.

1. Normal sulfur dioxide emissions. When the plant is in operation, sulfur is burned to form sulfur dioxide in a concentration of 8 or 9%, which is then oxidized to sulfur trioxide with the aid of a catalyst and absorbed in sulfuric acid to create more and stronger acid. The plant's capacity is 50 tons of new acid per hour, or 1200 tons per day. The efficiency of the catalytic converter is 98%; the remaining 2% of the sulfur dioxide escapes to the air. The company expects sulfur dioxide emissions during normal operation to approximate 1,820 ppm or about 1200 lb/hour or 26 lb/ton of acid (R. 259-60, 271, 361-78, 428-34).

The originally proposed standard of 1500 ppm (roughly 23 pounds per ton), it will be seen, thus would have required a rather marginal reduction in sulfur dioxide emissions from standard existing plants of 98% conversion efficiency. The technology required to achieve such a reduction, the evidence indicates, would in fact achieve far greater reduction. New Jersey Zinc testified that by adding a second absorber in series it would reduce emissions from the contemplated 26 pounds per ton of acid not to the 23 required by the 1500 standard but to the range of 10, and that certain scrubbers could achieve emissions of 7 to 14 pounds per ton (R. 280-84). The only other means of reaching the 1500 level, according to the testimony here, would be to curtail production by 15%, which would be as costly as the installation of the above controls (R. 303-04). Thus the 1500 standard made little sense; if existing plants were to be required to install expensive controls, the standard could without extra cost be made considerably tighter. The basic policy question was whether or not such controls ought to be required.

By proposing the 1500 ppm standard for existing plants and a much stricter standard for new, the Agency appeared to be attempting to resolve that policy question in favor of not requiring expensive backfitting; but, as the testimony showed, 1500 ppm was not the right place to draw the line to express that decision. Evidence in the rule-making proceeding established that new plants are being built and operated on a dual-absorption basis, apparently able to survive economically, to emit no more than 4 pounds of sulfur dioxide per ton of acid produced. That is the federal standard for new acid plants, and that is the standard we adopted for new plants on the ground that what is being efficiently done elsewhere represents a standard of good practice for all to follow in designing new facilities to avoid unnecessary degradation of the air. PCB Regs., Ch. 2, Rule 204(f)(1)(B). To build a second

absorption unit into a new design is one thing; to backfit a second unit onto an existing plant is somewhat different. It is conceded it could be done here, with dramatic effect in reducing emissions, for something on the order of \$1,150,000 (R. 280-85), and that a scrubber could be installed instead, with similar results, for one to two million dollars (id.). It is, however, argued that to do so would so increase the cost of producing acid that the plant would be unable to compete and would not be operated (R. 288, 397).

Thus the suggestion was clearly made that, while new plants could meet the strict standard and survive economically, existing plants could not. While we firmly believe that no pollution program worth its hire can afford to overlook existing pollution sources, and while many of our regulations impose strict limits requiring backfitting of existing facilities, we found no proof that the particularly burdensome requirement of backfitting existing 98% - efficiency sulfuric acid plants for sulfur dioxide control was needed across the board to secure satisfactory air quality. The 2000 ppm limit was adopted because "a stricter concentration limit would require plant derating or addition of auxiliary scrubbing systems and has not been shown to be uniformly necessary to meet air quality standards". Rule 204(f)(1)(A); see opinion in *In the Matter of Emission Standards*, #R 71-23, p. 37 (April 14, 1972). The use of the word "uniformly" was intentional and important; the door was left open, as more fully explained below, for requiring additional controls in individual cases where necessary in light of facts such as adverse atmospheric conditions, low stacks, or high concentration of sources (id., p. 5).

Under Rule 101 a new source is one "the construction or modification of which is commenced on or after the effective date of this Chapter," which was in April, 1972. The DePue plant was constructed long before 1972; the argument that it should be treated as a new facility derives from the fact that it had been closed when the regulations were adopted and is sought to be restored to operation thereafter. For certain purposes we have said there is a close analogy between a new plant and one that is to reopen after having been shut down. In *EPA v. Lindgren Foundry Co.*, #70-1 (Sept. 25, 1970), we held that on the facts there presented it was reasonable to require a closed foundry to be brought into compliance with particulate emission regulations of long standard before reopening, just as a new plant would have to be, although we might decline to order an operating plant shut down under the same circumstances. Lindgren thus holds that the interruption of a going business is an important factor in determining whether or not to grant a variance allowing operation while building controls to meet a currently enforceable standard. But this is not to equate the reopened plant with the new for all purposes. Not only

do we deal in the present case with a squarely applicable definition in the regulations that draws the line in terms of old and new construction rather than present operation, but the policy underlying the distinction between old and new plants for purposes of sulfur dioxide emissions indicates that the DePue plant is properly considered an existing one. For this particular distinction is not a matter of timing for the installation of given controls; our decision was that there was no showing of a justification for requiring the expenditure of the large sums required to backfit old facilities at all, in the absence of special conditions bringing the statutory nuisance rule or the air-quality standard into play. This policy that old acid plants should not be generally required to backfit is as applicable to a plant that has been closed for a year as it is to one that is currently in operation. We conclude, therefore, that the DePue plant is an "existing" rather than a "new" acid plant and therefore is subject to the 2000 ppm sulfur-dioxide standard. This means, according to the revised petition, that normal emissions will be in compliance with the standard, and no variance on this account is therefore necessary.

2. Normal acid mist emissions. Some sulfuric acid mist is also emitted from the manufacturing process; it has been partially controlled by a demister designed to reduce acid mist emissions to 0.5 pounds per ton produced (R. 292-93). The existing demister has been less than satisfactory: A serious incident in April, 1969 resulted in damage to neighboring property because of acid emissions (See R. 334; Hale attachment to petition, p. 5) and at best the acid collected fails to drain away properly, interfering with efficiency (R. 293). Repairs have somewhat improved the situation, but the company initially pledged to buy a new York demister guaranteed to restore emission to less than 0.5 pounds per ton (R. 293-94). The standard we adopted after considerable testimony, however, is 0.15 pounds per ton (PCB Regs., Ch. 2, Rule 204(f)(2)), on the basis of evidence that this reduction of a particularly dangerous pollutant could be readily achieved in both existing and new plants by the use of a Brinks demister (see Opinion in #R 71-23, supra, at p. 38).

At the variance hearing New Jersey Zinc argued that, although such a demister would do the trick and was available at a cost (\$200,000 to \$300,000) not in our view greatly in excess of that the company was prepared to spend (\$70,000 - \$80,000) for the less efficient device (R. 295, 390), to install the Brinks would diminish the effective production capacity of the plant by 10%, resulting in considerable economic losses that would make it impossible to open the plant (R. 295 - 98, 355-56, 397). The company made quite clear that it was this feared loss of capacity, not the capital cost, low in comparison

to that of a second absorber as discussed above, that it found an unreasonable burden (R. 409).

The revised petition, submitted after Dr. Wadden's suggestion that the feared capacity loss might be due to the inadequacy of other plant equipment to provide sufficient pressure, commits the company to installing "a Brinks HE demister, or its equivalent, capable of meeting the 0.15 lbs. of acid mist per ton standard," by no later than the December 31, 1973 deadline of the regulation (Rule 204(h)(3)). Emissions in the meantime will be controlled by the existing repaired demister, and there is no need for a variance from the acid mist standard because the company will meet it on or before its date of application.

3. Startups. Testimony at the hearings brought out that, although no request for a more lenient variance during start-up had been made, the plant could not be expected to conform to its normal sulfur dioxide emissions of less than 2000 ppm or 26 lb/ton while starting operation after a shutdown of 24 hours or more. (R. 263). It was explained that the efficiency of the converter is dependent upon the temperature of the catalyst, and that although efforts were made to preheat the catalyst before commencing operation, "when you reheat, if you have been down too long, the catalyst doesn't reactivate and start its proper function quite as good or as quickly" (R. 321). During Board discussion, Dr. Wadden suggested that the record failed to show the company had taken all practicable steps, beyond preheating of the catalyst, to minimize excessive emissions during startups. He specifically called attention to the question of heating the acid in the absorber and maintaining its strength so as to achieve maximum reaction in the shortest time.

The company's amended petition addresses itself in considerable detail to the startup problem and commits New Jersey Zinc to a far-reaching program to reduce startup emissions. As in the past, the company will preheat the sulfur burner and the converter catalyst before commencing operation, will begin burning sulfur at 25% of the design rate, and will take precautions to maintain the strength of the acid entering the drying tower. In addition, the company with the aid of its consultant has developed what it terms a unique program to improve the operation of the absorber during startup. This plan includes by-passing acid around the acid coolers in order to heat the acid as quickly as possible; maintaining a high acid strength in the absorber; and gradually increasing the operating rate, with normal operation to be achieved within four hours after sulfur burning begins, as contrasted with an estimate of twelve hours given by another company in the rule-making proceeding (#R 71-23 , R. 1596). Sulfur dioxide emissions (at a reduced production rate and therefore a reduced volume of emissions) will not exceed 8,000 ppm during the first hour of operation or 4,000 ppm during the next three hours. Startup emissions of acid

mist, it is said, will be substantially reduced in comparison with past startups because of the absorber procedures proposed.

The Agency recommends approval of the startup plans along with other elements of the company's program.

Our regulations recognize, as we said in the opinion accompanying their adoption, that "startup conditions may result in less than optimum emission control." In the Matter of Emission Standards, supra, at p. 8. Rule 105 (PCB Regs., Ch. 2) requires that normal emission standards be met during startup in the absence of a showing that this is impracticable; the policy of the Rule, the opinion said, is that "insofar as is practicable, efforts shall be made to reduce the incidence and duration of startups and excessive emissions during startup periods." The emission standard was set on the basis of what could reasonably be achieved during normal operation, and the Agency in its permit program may authorize excessive startup emissions shown to be unavoidable. We think, in the spirit of Rule 105, that New Jersey Zinc has demonstrated that it will do all that is practicable to reduce startup emissions. Because the Agency has power to approve the emissions in question and has indicated it will do so, there is no need for a variance for this purpose.

4. Neighborhood Effects. Perhaps the most serious reservation voiced by Board members and staff about the original variance petition had to do with the danger that operation under the conditions initially proposed might create substantial harm to persons in the neighborhood. Our concern was based in part upon considerable citizen testimony as to offensive conditions in the past (R. 82 et seq.) and in part upon Agency predictions that renewed operation would cause high ambient sulfur dioxide concentrations in downwind portions of DePue.

The company conceded that it had had an especially bad incident in April of 1969 (R. 176, 186A, 334; Hale attachment pp. 5-6), in which significant property damage was done by excessive emissions of acid mist. Improved surveillance has prevented recurrence (id.), and even before the new demister is installed the situation will not be as it was during that incident. Of greater concern are citizen statements that irritating, bad-smelling fumes from the acid plant were common during plant operation (e.g., R. 93-94), tending to suggest that the plant during normal operations created nuisance conditions by its emissions of sulfur dioxide and/or acid mist. We did not wish to grant any variance that would permit such conditions to continue, even if the numerical standards were met.

New Jersey Zinc testified that, although no new control equipment for sulfur dioxide is to be installed, sulfur dioxide emissions in the past had probably been higher than they

should have been because of operating problems caused by utilizing zinc smelter gas as feedstock. Not only, the company said, did smelter gas provide an irregular concentration of sulfur dioxide at best, but the plant experienced frequent shut-downs and startups as a result of operating problems. These difficulties, we are assured, will no longer exist if the plant is reopened, for smelter gas is not to be used (R. 260-66). Moreover, some of the problem in the past may have been due to particulate or other emissions from the zinc smelter itself, which will not be reopened (R. 30).

We find this somewhat reassuring, but only experience will reveal whether the switch from smelter gas will eliminate nuisance conditions. We do not interpret the petition as seeking permission to create an active nuisance, and if it did we would not be readily disposed to grant it, especially since equipment to reduce sulfur dioxide emissions considerably is concededly available. The Agency is required to consider whether or not operation will cause statutory air pollution before granting any permit. See EPA v. Southern Illinois Asphalt Co., # 71-31 (June 9, 1971). In the present case the Agency has voiced its approval of renewed operation. Since there is no request for a variance to allow a nuisance, and since the Agency has indicated it has no present objection to allowing the plant to operate, there is no controversy now before us as to whether operation will violate the air pollution prohibition and no need to consider granting a variance from that provision. If serious harm results, as neither party expects, further proceedings may be instituted.

The Agency, utilizing standard dispersion equations, predicted emissions, measured wind information from Illinois stations, and an effective stack height determined on a standard basis, calculated that ambient concentrations of sulfur dioxide attributable to the DePue acid plant would exceed 365 micrograms per cubic meter (ug/m^3) (0.14 ppm) at the worst point 58.3% of the time (see generally R. 452-509, especially 497). 365 ug/m^3 is the federal air-quality standard for a 24-hour period, which for health reasons is not to be exceeded more than one day per year (R. 466). The Agency's calculations cannot be directly compared with this standard, since it is not clear that the high concentrations predicted, despite their frequency, will persist in any one place long enough to cause a 24-hour average of 365 ug/m^3 . But it was this sort of evidence, including estimates that under certain conditions concentrations could reach as high as 5893 ug/m^3 (R. 499-500) and that the regulation level (1048 ug/m^3 or 0.4 ppm) whose persistence for four hours can give rise

to an emergency alert could be expected 4.8% of the time at one point (R. 507-08), that led Board members to suggest the need for proof by New Jersey Zinc, which as petitioner carries the burden of proving that a variance would not unreasonably harm the public, that its operations would not in fact cause serious violations of health-related air-quality standards.¹

New Jersey Zinc responded by disputing the Agency's calculations,² maintaining that normal operations would seldom cause violations of air quality standards, and agreeing to an episode control plan, as suggested by the Agency, designed to assure that plant operations will be curtailed whenever that is necessary to prevent dangerous concentrations of sulfur dioxide (see Statement of Further Evidence and Offer of Proof; First Amendment to Petition). The company agrees to monitor weather conditions continuously; to maintain two instruments to monitor ambient sulfur dioxide concentrations continuously; and to submit sampling data to the Agency weekly. The appropriate location of the sensors is of course crucial, and the company agrees that the Agency must approve their siting. Moreover, this program in no way disables the Agency from doing its own monitoring or from inspecting to be sure the company's monitors are operating properly. The Agency has an obligation to do so, because the important business of ascertaining whether excessive levels are reached cannot be left entirely to the company. If either instrument yields a reading of 0.14 ppm (the level which if persisting for 24 hours would violate the federal health standard), the company will prepare for a possible production cutback. If the 0.14 level persists as an arithmetic average for four hours, production must be reduced in accord with a stated formula unless the Agency directs otherwise.

The basis for the formula is not spelled out, but by plugging in illustrative ambient concentrations we can observe the effects of its implementation. There is a term permitting

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1. The Agency's witness testified that his calculations ignored the possible effects of fumigation or downwash and the fact that winds in the river valley at DePue were less favorable than the Peoria values used in his calculations. All these factors, he said, meant that actual conditions were likely to be even worse than he had calculated (R. 502-05).
 2. Although the company acknowledged that the long-term average SO₂ concentration at a nearby Agency monitor had been 0.05 ppm, which exceeds the federal annual primary standard of 0.03, it contended that without the sinter plant of the zinc smelter, which will not be operated, levels would "approach" the federal standard (Hale attachment, pp. 10-11). No mention is made of the secondary standard, which must also be met.

smaller cutbacks to be made to the extent that other sources are responsible for ambient levels,³ which is quite reasonable so long as those sources are in a position to effect reductions of their own. Assuming that the acid plant is the only significant source, however, the formula is as follows:

$$\frac{(\text{Ambient air} - .14)}{.30} = \% \text{ Production Cutback from full capacity.}$$

If the ambient concentrations is .24 ppm, the percentage of cutback will be .10/.30, or one third; if we assume a straight-line relationship between continuing emissions and ambient concentrations, the .24 concentration would be reduced to .16 if weather conditions remained the same. Similarly, if the ambient concentration is .34, the cutback is .20/.30 or two thirds, reducing atmospheric SO₂ on the above assumption to .11. If ambient is .44, the cutback is .30/.30, is complete shutdown.

The assumed relationship between emissions and ambient levels is no doubt an oversimplification, but it tends to suggest that the formula seeks to prevent ambient levels from ever significantly exceeding the level of 0.14 ppm, which is the federal 24-hour standard. The formula does not require any reduction in emissions so long as the ambient level is at 0.14 ppm. This means the formula does not force the company ever to take action even if the federal standard is actually violated by the persistence of this level for two full days or longer. But acceptance of the present formula to deal with what may be the bulk of the problem situations does not deprive the Agency of tools with which to compel abatement of health dangers in other cases. Should the .14 level be barely exceeded for periods exceeding 24 hours, so that no action is required under the formula, or should the maintenance of the annual air-quality standards be threatened, the Agency could proceed under the regulation forbidding emissions that cause violations of the air quality standards or under the statutory prohibition of air pollution, invoking summary remedies if necessary to protect the public health. PCB Regs., Ch. 2 Rule 102; Environmental Protection Act, sections 9(a), 34. The art of episode control is not yet a science; we find the formula to which New Jersey Zinc has agreed a significant positive step toward assuring that the company can and will operate without causing a danger to the public health.

We need not in evaluating this episode plan find that the Agency's predictions as to the frequency or severity of high sulfur dioxide levels are right or wrong. What governs is that

3. The complete formula is

$$\frac{(\text{Ambient Air} - .14)}{.30} \times \frac{(\% \text{ Ambient Air Attributable to Petitioner})}{100} = \% \text{ Production Cutback from Full Capacity}$$

the company has committed itself to cut back production whenever necessary to keep dangerous concentrations from persisting long enough to cause trouble. If the company is right that high concentrations and consequent cutbacks will be infrequent, so much the better for everyone; if high concentrations are more frequent, the company will take action to prevent serious harm. Either way the public should be given reasonable protection. We believe the present program goes a long way toward assuring such protection at the same time permits the resumption of operations, with all the attendant benefits for the entire community in terms of jobs and business, which were emphasized by witnesses representing the Village, the School District, and the Steelworkers' Union (R. 46-59, 143-50).

The Agency is required to approve episode control plans in passing upon permit applications. The Agency states that it is prepared to permit operation on the basis of the present episode program; we do not read the petition as asking permission to deviate from other requirements of the episode regulations or to bring about violations of the air-quality standards; there is thus no controversy before us requiring us to grant or deny any variance with respect to the program.

We add a word of caution. That the plant will comply with our numerical emission limits by the date they become effective we think has been amply shown. The most serious aspect of the matter, however, is whether under the peculiar circumstances of this case a bare compliance with emission standards of general applicability will suffice to prevent significant harm to other persons. The overriding requirements, as we made clear in our opinion adopting the emission standards, are that no unreasonable interference with others be caused and that the air quality standards not be violated. Emission standards represent what we think everyone in the State should do as a matter of good practice to reduce emissions. In many, perhaps in most cases that will be enough to achieve satisfactory air quality; but

"under special circumstances of geography, meteorology, or configuration, emissions meeting the standards may cause a nuisance, and that the statute flatly forbids. . . . Compliance with the emission standards is a minimum; it is essential that whatever measures are necessary, subject to proof regarding economic reasonableness in the particular case, be taken to assure that the air quality standards are met. . . . Enforcement action may be undertaken against an emission source even if it is in compliance with numerical emission standards, if such compliance is insufficient to assure that the air is of satisfactory quality."

That is the meaning of the statutory provision that compliance with Board regulations is only a "prima facie" defense. In the Matter of Emission Standards, #R 71-23, pp. 4-5 (April 13, 1972), and cases cited.

The significance of these principles in the present case is as follows. There has been significant pollution in the past, and the basic source of sulfur dioxide emissions will not be further controlled. The acid plant is located in a river valley, where dispersion of contaminants is often less effective than elsewhere (R. 502). Residential areas not far away are at higher elevations, reducing the effective stack height (R. 461). The Agency's expert witness summarized the matter by observing that

Actually, each thing that I have looked at as far as the location related to meteorology, it almost appears that the DePue plant was picked to be in the worst possible spot.

(R. 506). This is not meant to suggest any bad faith; nobody is presumed to pollute out of sheer malice. What it does suggest is that measures that are adequate for similar plants elsewhere may be insufficient to prevent pollution under the specific facts of this case. It is for that reason that the episode plan was developed, and it is our hope that this plan will permit operation of the plant with the improvements proposed without serious air pollution. We urge both the Agency and the company to watch the situation closely to make sure this is what actually occurs. If frequent pollution results, there will have to be frequent cutbacks of production; at some point it may be necessary once again to face the question of adding a second absorption unit to reduce sulfur dioxide emissions or of abandoning the operation. We view our action today as permitting a final opportunity for the company to demonstrate that it can operate enough hours without pollution to justify not making the additional expenditures. For the technology to reduce emissions further is concededly available; we will not hesitate to require it if it becomes clear that it is necessary to prevent serious pollution.

In summary, we view this case as a success story in preventing pollution before it begins, and a confirmation of the value of a permit system. As a result of Agency scrutiny prior to opening the plant, of careful Agency evidence as to the predictable adverse effects of proceeding according to the company's original plan, and of imaginative and thorough evaluation of the record as to abatement practicability by our staff engineer, the company has found it reasonable to install an improved demister making it unnecessary to exceed

the sulfuric acid standard; it has developed an improved plan to control emissions during startup; and it has committed itself to an episode plan that it believes will enable it to operate without causing air pollution. These improvements have made it unnecessary for us to grant a variance, as there is no request before us for permission to violate any law or standard. The petition for variance is therefore moot, and it is hereby dismissed.

I, Christan Moffett, Clerk of the Pollution Control Board certify that the Board adopted the above Opinion this 29th day of August, 1972, by a vote of 5-0.

Christan D. Moffett