

ILLINOIS POLLUTION CONTROL BOARD
February 1, 1996

IBP, INC.,)	
)	
Petitioner,)	
)	
v.)	PCB 93-179
)	(Permit Appeal-NPDES)
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

CHARLES M. CHADD, OF ROSS AND HARDIES, APPEARED ON BEHALF OF PETITIONER.

MARGARET P. HOWARD, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by G. T. Girard):

On September 30, 1993, petitioner, IBP, Inc. (IBP), filed a petition for review of conditions imposed by respondent, the Illinois Environmental Protection Agency (Agency), on a National Pollutant Discharge Elimination System (NPDES) permit issued August 26, 1993. IBP filed an amended petition on November 22, 1993. IBP is seeking renewal of a NPDES permit for IBP's beef processing and tannery facility in Joslin, Rock Island County, Illinois. The discharge is to the Rock River in Illinois.

Hearing was held before the Board's Hearing Officer Deborah Frank on January 9, 1995, in Rock Island, Illinois. No members of the public were present. On January 27, 1995, IBP filed its brief and on March 3, 1995, the Agency filed a brief. IBP filed a reply brief on March 10, 1995. According to statements by the petitioner at hearing and the briefs, the only issue remaining relates to the daily maximum sulfate effluent limit set forth in the NPDES permit.

The Board's responsibility in this matter arises from Section 40 of the Environmental Protection Act (Act). [415 ILCS 5/40 (1994).] The Board is charged, by the Act, with a broad range of adjudicatory duties. Among these is adjudication of contested decisions made pursuant to the permit process. More generally, the Board's functions are based on the series of checks and balances integral to Illinois' environmental system: the Board has responsibility for rulemaking and principal adjudicatory functions, while the Agency is responsible for carrying out the principal administrative duties, inspections, and permitting.

PRELIMINARY MATTERS

Before proceeding with a discussion of the merits of the case, the Board must first address whether certain evidence offered at hearing by petitioner should be admitted. At hearing, petitioner offered evidence regarding daily maximum sulfate effluent data readings through April 1994. (Tr. at 8-20.)¹ The Agency objected to the admission of those documents and the hearing officer sustained the objection. (Tr. at 8-20.) Therefore, petitioner's Exhibit 9 and data collected after August 26, 1993, in Exhibit 18 were not admitted. (Tr. at 172.) The hearing officer allowed offers of proof on those exhibits.

The petitioner argues to the Board that the excluded information offered in Exhibits 9 and 18 and the testimony included in the offers of proof should be admitted under the doctrine "set forth in City of East Moline v. PCB, 188 Ill. App. 3d 349 (Ill. App. 3 Dist. [sic] 1989), cert. den., 129 Ill. 2d 562, 550 N.E.2d 554 (1990) and Dean Foods Co. v. PCB, 143 Ill. App. 3d 322, 492 N.E.2d 1344 (Ill. App. 2 Dist. [sic] (1986))". (Pet. Br. at 9.) The petitioner asserts that the information is "relevant to demonstrate that IBP's existing effluent quality is higher than the Agency determined, and is also relevant to proving that no violation of the Act or Board regulations will occur if the permit condition is removed". (Pet. Br. at 9.)

The Agency points out that the Board's procedural rules provide that with regard to a disputed issue of fact, the Board hearing will be *de novo* in nature. (Ag. Br. at 6; 35 Ill. Adm. Code 105.102(b)(8).) However, the Agency argues that Dean Foods does not create an "open door" for IBP to present any evidence it so desires. (Ag. Br. at 6.) The Agency argues that the "issue before the Board is whether the permittee has demonstrated that a violation of the Act or regulations would not occur if the Agency used the highest extremes of daily maximum values for sulfate". (Ag. Br. at 6.) Therefore, all values which occurred after issuance of the permit are irrelevant according to the Agency. (Ag. Br. at 9.)

The Board is persuaded that the cases cited to the Board by petitioner do allow the admission of the additional daily maximum sulfate effluent values in this NPDES permit appeal. The Board will therefore, overrule the hearing officer and allow the information into the record. The Board notes that the issue of relevance was not clearly stated at hearing and the parties did not fully present the arguments on the issue to the hearing officer. Thus, the hearing officer's ruling was based on incomplete information.

¹ The petitioner's brief will be cited as "Pet. Br. at _"; the petitioner's reply brief will be cited as "Pet. RBr. at _"; petitioner's exhibits will be cited as "Pet. Exh. at _"; the Agency's brief will be cited as "Ag. Br. at _"; the Agency's record will be cited as "R. at _"; and the Board hearing transcript will be cited as "Tr. at _"; respondent's exhibits will be cited at "Resp. Exh. at _".

ISSUE ON APPEAL

Framing of Issue

The Agency's written response to the permit application frames the issues on appeal from that decision. (Pulitzer Community Newspapers, Inc. v. Illinois Environmental Protection Agency, PCB 90-142, at 6 (December 20, 1990); Centralia Environmental Services, Inc. v. Illinois Environmental Protection Agency, PCB 89-170, at 6 (May 10, 1990); City of Metropolis v. Illinois Environmental Protection Agency, PCB 90-8 (February 22, 1990). Thus, the Agency's August 26, 1993, letter frames the issue on appeal. The August 26, 1993, Agency letter issued the instant NPDES permit with 15 special conditions. (R. at 108-116.) IBP stated at hearing that there is only a single contested issue remaining in this NPDES permit appeal. (Tr. at 4-6; Pet. Br. at 1.) IBP appeals the daily maximum effluent permit limit for sulfate which the Agency set at 1,529 mg/l on August 26, 1993. (R. at 108, 111.)

The specific language of the Agency's letter concerning sulfate effluent limits reads:

3. Sulfate permit limits recognize mixing for this substance and were determined by a statistical analysis of the effluent sulfate concentration. Any substance present in an effluent and likely to exceed a WQ standard must be regulated and that is the reason that sulfate limits now appear in the permit. The statistical model of 95th percentile concentration was adopted from USEPA's Technical Support Document for Water Quality Based Toxics Control EPA/505/2-90-001. The Agency document Illinois Permitting Guidance for Mixing Zones explains our utilization of this method. Under the procedures, we must adhere to EEQ when granting a mixing zone as has been done for sulfate in this case.

(R. at 108.)

Burden of Proof

A petition for review of permit conditions is authorized by Section 40(a)(1) of the Act [415 ILCS 5/40 (a)(1)] and 35 Ill. Adm. Code Section 105.102(a). The Board has long held that in permit appeals the burden of proof rests with the petitioner. The petitioner bears the burden of proving that the application, as submitted to the Agency, would not violate the Act or the Board's regulations. This standard of review was enunciated in Browning-Ferris Industries of Illinois, Inc. v. Pollution Control Board, 179 Ill. App. 3d 598, 534 N.E. 2d 616, (Second District 1989) and reiterated in John Sexton Contractors Company v. Illinois (Sexton), PCB 88-139, February 23, 1989. In Browning-Ferris the appellate court held that a permit condition that is not necessary to accomplish the purposes of the Act or Board regulations is arbitrary and unnecessary and must be deleted from the permit. In Sexton the Board held:

...that the sole question before the Board is whether the applicant proves that the application, as submitted to the Agency, demonstrated that no violations of the Environmental Protection Act would have occurred if the requested permit had been issued.

IBP is challenging the daily maximum sulfate effluent limit of 1,529 mg/l set by the Agency in the contested NPDES permit. (Pet. RBr. at 1.) Therefore, IBP must establish to the Board that the NPDES permit would not violate the Act or the Board's rules if the requested permit were issued by the Agency, either with a different daily maximum sulfate effluent limit, or with no daily maximum sulfate effluent limit.

REGULATORY FRAMEWORK

Sulfate Effluent Limit

The Board's regulations do not directly specify an effluent limit for sulfate. Instead, dischargers are bound by Section 304.105, which specifies that no effluent shall cause a violation of any applicable water quality standard (35 Ill. Adm. Code 304.105). The water quality standard for sulfate is 500 mg/l (35 Ill. Adm. Code 302.208(e))².

Allowed Mixing

Pursuant to 35 Ill. Adm. Code 304.105, a discharger is prohibited from causing or contributing to a violation of any water quality standard. Under this provision of the State's water quality regulations, a discharger is prohibited from discharging any substance to the waters of Illinois in such manner as to cause the water quality standard for that substance to be exceeded. Although this is a very strong prohibition, there is an exception to it provided at 35 Ill. Adm. Code 302.102.

The exception provides that small portions of the waters of Illinois may be used by dischargers to effect mixing (commingling) of effluent with the waters of Illinois. For these waters where mixing is allowed, dischargers are exempt from the Section 304.105 prohibition against causing or contributing to water quality violations; the exemption applies to all water quality standards except acute toxicity standards (see 35 Ill. Adm. Code 302.102(c)).

² The Board notes that the water quality standard for sulfate has been raised to 1000 mg/l on small stream segments in Illinois pursuant to the adjusted standard process in Section 28.1 of the Act. (See In the Matter of: the Petition of Borden Chemicals & Plastics Operating Limited Partnership for an adjusted standard from 35 Ill. Adm. Code 302.208, AS 93-2, (November 18, 1993) and In the Matter of: Petition of Rhone-Poulenc Basic Chemicals Company and Thorn Creek Basin Sanitary District for an adjusted standard from 35 Ill. Adm. Code 302.208 and 304.105, AS 94-7, (June 23, 1994).)

Although the ability to use portions of the waters of Illinois to effect mixing of effluents is a right under Illinois law, it is a limited right. Foremost, the right to allowed mixing may be exercised only by dischargers who are already providing the best degree to treatment to their effluent (see 35 Ill. Adm. Code 302.102(a) and 304.102 read together). That is, allowed mixing is never to be used as a substitute for technically feasible and economically reasonable treatment; or put more colloquially, “in-stream dilution is not the solution to pollution”.

Additionally, the right to allowed mixing is limited to only certain waters of Illinois. The waters of Illinois that are not available for allowed mixing are spelled out at 35 Ill. Adm. Code 302.102(b) in a list of 12 limitations. The philosophy behind this list was summarized by the Board at the time of adoption of the list:

A principal provision of subsection (b) [of Section 302.102], taken as a whole, is that the volume of waters used for allowed mixing must be as small as is practical, such as to limit impact on aquatic life, human health, and recreation. Further, it is incumbent upon any discharger desirous of taking advantage of the allowed mixing provision to assure that there is in place all reasonable engineering structures and treatment methods as are necessary to reduce the volume of waters needed for allowed mixing. (In the Matter of: Amendments to Title 35, Subtitle C (Toxics Control) R88-21, Docket A, January 25, 1990, 107 PCB 281.)
(Hereinafter R88-21.)

Mixing Zones

At the time of adoption of the current language regarding allowed mixing, it was recognized that there would be times when it would be desirable or necessary to give formal definition to that particular water of Illinois within which a particular discharger was exercising an allowed mixing right. Need for such formal definition might be necessary, for example, if there was a question regarding the point where compliance monitoring is appropriate or whether one or more of the twelve Section 302.102(b) limits was not being observed. Such a formally defined body of water within which mixing is allowed was named, in accord with prior practice, a “mixing zone”. In recognition that this formal mixing zone would be in effect an agreement between the discharger and Illinois as to where allowing mixing could be undertaken in compliance with all regulations, the Board determined that mixing zone determinations are to be made as part of the NPDES permitting process, and thereby subject to the range of procedures and safeguards involved in the NPDES permitting process. (See R88-21 at 107 PCB 285.)

FACTUAL BACKGROUND

IBP's Joslin facility includes operations that butcher beef carcasses into smaller units which are packaged for wholesale distribution. (Tr. at 25.) In addition, beef hides are tanned in a process that involves a series of drums which hold the hides in the appropriate tanning solutions. (Tr. at 139-140.) The tannery operation contributes the most sulfate to the system. (Tr. at 126-

127, 135-136.) IBP operates a wastewater treatment facility to process wastewater from the butchering and tanning operations, which discharges effluent to the Rock River. (Tr. at 131-135.)

The wastewater treatment facility includes several processes which treat for BOD constituents, oil and grease, total suspended solids, and fecal coliform matter. (Tr. at 132-135; R. at 176.) The facility's wastewater treatment system is not designed to treat for sulfate. (Tr. at 136.) The facility has automated samplers which pull specific size aliquots of the waste stream at specific time intervals. (Tr. at 94-95.) The samples that are pulled are documented and follow a chain of custody to the laboratory. (Tr. at 95, 102-103.)

The laboratory at IBP's facility is an accredited facility which includes accreditation for sulfate analysis. (Pet. Exh. at 7; Tr. at 105-107.) The laboratory follows a written analytical procedure and runs several controls for confirming the analysis. (Tr. at 97-104.)

The Agency had not previously set a sulfate limit in any prior IBP NPDES permits. (Tr. at 22.) Mr. Richard Pinneo, a permit reviewer for the Agency testified that the sulfate discharge levels reported in the IBP permit application were of concern to him. (Tr. at 146.) He referred the application to Mr. Bob Mosher, supervisor of the Agency's standards unit, for further review. (Tr. at 30-34, 147.) Mr. Mosher developed the sulfate effluent limits "based on water quality criteria and the existing mixing zone procedures". (Tr. at 30, 147.)

The Agency followed procedures specified in the Agency document entitled, "Illinois Permitting Guidance for Mixing Zones", to calculate a sulfate effluent limit for IBP's NPDES permit. (R. at 108.) The Agency's first step was to determine the assimilative capacity of the Rock River by performing a "mass balance" evaluation. (Tr. at 41-42.) The "mass balance" evaluation is:

an equation that allows us [the Agency] to determine the assimilative capacity of the receiving stream with regard to the Board's mixing zone regulation in reference to a particular substance that discharger is discharging. (Tr. at 41.)

As a result of this evaluation, the Agency determined that the Rock River could assimilate an effluent with a maximum sulfate concentration of 54,434 mg/l. (Tr. at 48; R. at 67.)

The Agency's next step in determining the daily maximum sulfate effluent permit limit was to use the existing effluent quality to limit the effluent and establish the smallest possible mixing zone. (Tr. at 51.) Agency employee, Mosher, testified that the process for establishing the appropriate size for a mixing zone, "keys on the highest bona fide value from the effluent". (Tr. at 156.) After reviewing daily sulfate effluent discharge information supplied by IBP, Mr. Mosher testified that he determined that the two highest values were outliers and should not be considered in establishing the effluent limits. (Tr. at 51-53, 60-61.) IBP concedes that the highest value of 2,377 mg/l was a result of a mathematical error; however, IBP believes that the second highest value of 1,808 mg/l is an accurate reading. (Tr. at 115; Pet. Br. at 4.) According to the Agency,

Mr. Mosher used the third highest value of 1,390 mg/l³ to set the daily maximum sulfate effluent limit at 1,529 mg/l as a condition of IBP's NPDES permit. (Tr. at 75-76, 159-160; Pet. Br. at 4-5.)

Mr. Mosher testified that he used Nalimov's test to determine that the effluent values he rejected were statistical outliers. (Tr. at 67, 76; Resp. Exh. at 4.) Mr. Mosher described Nalimov's test as "a statistical procedure to identify data points within a data set that are outliers to that data set. In other words, they are so far away from the other numbers, that some suspicion arises to various degrees of why that number belongs in the data set". (Tr. at 67.) Mr. Mosher stated that he assumed that the effluent numbers were the "result of a routine operation of a treatment plant". (Tr. at 78.) Mr. Mosher further testified that a discharge reading which is higher than 1,529 mg/l would be considered a permit violation if the IBP NPDES permit were issued with a daily maximum sulfate effluent limit of 1,529 mg/l. (Tr. at 79-80.) Mr. Mosher also used Nalimov's evaluation to determine that the effluent discharge of 1,658 mg/l taken by IBP after August 26, 1993, was an outlier. He further testified that a sulfate discharge of 1,658 mg/l would be a permit violation if the NPDES permit was in place with the daily sulfate maximum of 1,529 mg/l contained in the contested permit condition. (Tr. at 66-67, 80.) The Agency stated that based on the daily maximum sulfate effluent values submitted by IBP for the time period November 1991 to August 1993 (177 samples), IBP would have only been in violation of the 1,529 mg/l daily maximum sulfate effluent limit in the contested NPDES permit on two occasions. (Ag. Br. at 20.)

ARGUMENTS

IBP first argues that the Agency has concluded that the daily maximum sulfate effluent limit could be 54,434 mg/l in IBP's permit and that the Agency's imposition of a limit that is only 3% of that maximum (1,529 mg/l) is arbitrary, unreasonable, manifestly unfair, and unnecessary. (Pet. Br. at 3, 17.) IBP maintains that mixing should be used to set the permit limit and that this case revolves around the application of the Board's mixing rules. (Pet. Br. at 12.) Specifically,

³ The Board's review of the record shows that the Agency originally calculated the NPDES permit sulfate limits based on 152 daily maximum sulfate effluent values submitted by IBP for the time period November 1991 through August 1993. (Ag. Br. at 7-8.) The highest recorded sulfate value of 2,377 mg/l was in this original data set. During Agency discussions with IBP, several more sulfate data points recorded prior to issuance of the August 26, 1993, NPDES permit were considered by the Agency (Tr. at 60) which brought the number of data points to a total of 177. The next highest value of 1808 mg/l was in this data set. When the sulfate values up through April 1994 were allowed into the record by the Board (see previous discussion under Preliminary Matters) the total number of sulfate values in this record is 295. The third highest sulfate value of 1638 mg/l was recorded after the permit issuance date of August 26, 1993. Readers of this record and the Board's opinion need to keep in mind that Agency testimony about ranking of sulfate values does not recognize sulfate values recorded after August 26, 1993, which includes the third highest recorded sulfate value of 1638 mg/l.

the disputes centers on the interpretation of the limitation that the "area and volume in which mixing occurs must be as small as is practicable under the limitations prescribed in this subsection". (35 Ill. Adm. Code 302.102(b)(12).) IBP maintains that Agency employee Mr. Mosher and the Agency interpret Section 302.102(b)(12) to mean "as small as possible" and as a result used the existing effluent quality to determine the maximum daily effluent limit for sulfate. (Pet. Br. at 13; Tr. at 51.) IBP argues it is in "the unfair position of being charged with violations of permit limits for discharges that represent its existing effluent quality" because of the rigid statistical approach utilized by the Agency in determining existing effluent quality. (Pet. Br. at 13; Pet. Exh. at 19 and 20.)

IBP maintains that the 1,808 mg/l effluent reading Mr. Mosher disregarded as an outlier should have been used to establish the daily maximum sulfate effluent limit because the test results are accurate and the Agency has no reason to question the accuracy of that sample value. (Pet. Br. at 6.) IBP states that the sampling procedures are automated and the documented samples follow a chain of custody which ensures the integrity of the sample. (Pet. Br. at 6.) IBP operates an accredited laboratory at the Joslin plant in which chemists follow a written procedure for sulfate. (Pet. Br. at 6.) IBP states, with regard to the 1,808 mg/l sample value: "the chain of custody for that sample contains no indication that anything unusual occurred during the sampling process (Pet. Exh. at 5, Tr. at 104). . . . The percent recovery for that sample was within acceptable limits and the blank analysis shows minimal residue (Tr. at 109). . . . IBP found no evidence of a spill (Tr. at 141)." (Pet. Br. at 7.)

IBP argues, citing to ESG Watts, Inc. v. IEPA (PCB 92-54), that permit applications must be judged in terms of the future impact of the permit conditions. (Pet. Br. at 14.) IBP maintains that it cannot be "practicable" to set discharge limits lower than sulfate readings that have already occurred and are likely to occur again. (*Id.*) Further, IBP asserts that limits which are above the daily maximum sulfate effluent limit of 1,529 mg/l would be a violation of the permit condition. (*Id.*) IBP also argues that the Agency has incorrectly analyzed the Board's regulations and therefore the Board should remove the condition based on Testor Corp. v. IEPA (PCB 88-191). (Pet. Br. at 14-15.)

Finally, IBP argues that the Board's opinion in Fred E. Jurcak v. IEPA (PCB 88-137) should be used in this case. (Pet. Br. at 15.) IBP states that the Board allowed the petitioner to use his own treatment system because the "Clean Water Act required areawide plans only to the extent practicable". (Pet. Br. at 15.) IBP maintains that "[t]he Board refused to translate a requirement for practicability into rigid permit limit that would prevent the permittee from operating its own system". (Pet. Br. at 15.)

The Agency argues that in order for IBP to prevail, IBP must establish that "no violation of the Act or regulations would occur if the Agency used the highest extremes of daily maximum effluent values for sulfate, as provided by IBP's NPDES permit renewal application". (Ag. Br. at 11.) The Agency argues that IBP "did not sustain their burden and prove" that a higher permit limit "could reliably be set based on the daily maximum value of 1,808 mg/l". (Ag. Br. at 17.) The Agency maintains that Mr. Mosher properly considered the sulfate effluent value of 1,808

mg/l an outlier "based on the values around it, 569 mg/l and 538 mg/l". (Ag. Br. at 15.) The Agency states that Mr. Mosher considered the daily maximum sulfate effluent fluctuations from 538 mg/l to 1,808 mg/l extreme fluctuations for which IBP offered no explanation. Thus, according to the Agency the sulfate effluent value of 1,808 mg/l is an outlier and should not be considered in determining the maximum daily sulfate effluent discharge level.

The Agency discounts IBP's assertion that Mr. Mosher and the Agency interpret "practicable" as "possible". (Ag. Br. at 17.) The Agency states that Mr. Mosher merely interchanged the two words and Mr. Mosher in fact explained in great detail how he utilized the Agency's mixing zone guidance document to determine the size of the mixing zone. (Ag. Br. at 18.) The Agency goes on to state: "The Agency believes the guidance document provides set factors to be consistently examined when determining a mixing zone for any applicant. The Board should disregard this attempt to discredit the Agency's process of accurately determining mixing zones when no evidence of fallibility has been offered." (Ag. Br. at 18.)

The Agency also challenges IBP's reliance on Jurcak stating that the decision in that case did not turn on the definition of the term "practicable". (Ag. Br. at 18.) The Agency maintains that the Board determined that the condition at issue in Jurcak was "not necessary to achieve compliance with the Act or regulations and it was actually a condition of convenience". (Ag. Br. at 19.) Thus, Jurcak is not applicable in this case according to the Agency. (*Id.*)

Finally, the Agency maintains that the definition of "practicable" offered by IBP does not alter the Agency's decision on the maximum daily sulfate effluent limit. (Ag. Br. at 19.) The Agency maintains that the mixing zone allowed by the daily maximum sulfate effluent limit of 1,529 mg/l is practicable. The Agency concedes that limits over 1,529 mg/l would be a violation. However, based on 177 sulfate samples from November 1991 to August 1993, "IBP would have only violated the 1,529 mg/l daily maximum limit for sulfate twice". (Ag. Br. at 20.)

DISCUSSION

The Board first notes that the language in the Agency's denial letter and the hearing testimony of Agency employee, Mr. Mosher, gives the impression that the concepts of allowed mixing and mixing zones have been amalgamated in this case. The Board Opinion in R88-21 (see pages 13-23, 108 PCB 294-304) clearly delineates these two concepts. The Illinois Supreme Court also understands the allowed mixing and mixing zone concepts (see Granite City Division of National Steel Company et al v. The Illinois Pollution Control Board, 155 Ill.2d 149, 613 N.E.2d 719, 730-734, 184 Ill.Dec. 402 (1993)). An example of the Agency's mischaracterization is seen in the Agency denial letter statement that a mixing zone for sulfate has been granted in this case. However, the Board can find no evidence in the record that a mixing zone has been delineated. The Board's regulations describe a mixing zone as a three-dimensional construct in a body of water, subject to the twelve limitations of Section 302.102. The record only shows that

the Agency has recognized allowed mixing in this case⁴, and has used the internal Agency mixing zone guidance document to calculate an effluent concentration limit for sulfate. The Agency is using the sulfate effluent concentration limit in the NPDES permit as an Agency - derived surrogate instead of designating a mixing zone.

As previously stated the burden of proof in this permit appeal is on IBP to demonstrate that the permit, issued without the contested condition, will not violate the Act or the Board's regulations. The sole issue left for the Board in this case is whether the daily maximum sulfate effluent level set by the Agency is required to insure compliance with the Board's regulation that a mixing zone be as small as practicable. To establish the daily maximum sulfate limit, the Agency used the procedures outlined in the internal Agency mixing zone guidance document. The Agency's procedures used the sulfate values provided by IBP and performed a statistical analysis which indicated that some recorded discharge levels were outliers. The Agency believes that those outliers are numbers which do not reflect the actual sulfate levels in IBP's discharge, and the Agency then disregarded those outliers when calculating IBP's sulfate limit. However, IBP testified that no upset in normal operations occurred on the days that the larger discharges were reported. IBP also established that there was no recognizable error in laboratory analysis in arriving at the recorded sulfate discharge levels. Therefore, IBP believes that the highest recorded sulfate value of 1,808 mg/l, which was disregarded by the Agency as an outlier, should have been used to establish the daily maximum sulfate effluent value in IBP's NPDES permit.

The Board agrees with IBP that the daily maximum sulfate effluent value of 1808 mg/l should be used to set the NPDES permit limit. The Agency's statistical analysis may in fact support the proposition that 1808 mg/l may not represent the actual sulfate value in the effluent; however, IBP has provided sufficient information to establish that the readings did occur in the regular operation of its facility and with appropriate analytical testing at the facility. There is no evidence of an upset in the facility's operations or error in the calculations which would explain the higher recorded discharge levels. IBP has established that IBP's laboratory is certified and runs appropriate procedures to validate the laboratory's analytical procedures. IBP presented sufficient testimony that the reading of 1,808 mg/l occurred in the normal course of business. Thus, the Board finds that IBP has established that a daily maximum sulfate effluent discharge concentration as high as 1,808 mg/l reflects the normal operations of IBP's facility and appropriate analytical testing procedures.

Having determined that a higher discharge level has been recorded during normal plant operations and appropriate analytical procedures, the Board must now determine if IBP has established that using that higher discharge level to set a maximum daily sulfate effluent limit will violate the Act or the Board's regulations. Specifically, will the mixing zone be "as small as practicable"? "Practicable" is defined by the *American Heritage Dictionary* as "1. Capable of being effected, done, or executed; feasible. 2. Capable of being used for a specific purpose."

⁴ "The opportunity to use allowed mixing does not, in the first instance, involve the Agency or its discretion at all." (Granite City Division of National Steel Company, 155 Ill.2d 149, 613 N.E.2d 719, 732, 184 Ill.Dec. 402 (1993).)

First, the Board again must qualify this discussion by noting that the Agency has not established a mixing zone in this case. The Agency has instead apparently derived an effluent concentration limit as a surrogate for a mixing zone. The record in this case contains 295 daily maximum sulfate effluent values for IBP's facility for the time period November 1991 to April 1994. If the effluent limit of 1,529 mg/l established by the Agency in IBP's NPDES permit had been in effect, IBP would have violated that permit condition twice in that time period. Therefore, the 1,529 mg/l daily maximum sulfate effluent limit is not "capable of being effected, done or executed", since that level would have been exceeded twice, and IBP would be subject to enforcement for those exceedences as violations of a permit condition pursuant to the Act and Board regulations. Such violations could result in penalties of up to ten thousand dollars per occurrence. (See Section 42 of the Act.) Based on past operations it is not unreasonable to assume exceedences of the 1,529 mg/l daily maximum sulfate effluent limit could occur.⁵ Therefore, the Board finds that a daily maximum sulfate effluent limit of 1,529 mg/l would result in an Agency - derived surrogate mixing zone that is smaller than practicable. Accordingly, the Board will remand this case to the Agency with instructions to issue IBP's NPDES permit with a daily maximum sulfate effluent limit based on the 1,808 mg/l sulfate value recorded by IBP.⁶

CONCLUSION

The Board finds that IBP has met its burden of proof in this permit appeal by establishing that a daily maximum sulfate discharge level as high as 1,808 mg/l reflects the normal operations of IBP's facility and appropriate analytical testing procedures. The Board finds that a daily maximum sulfate effluent limit of 1,529 mg/l would result in an Agency - derived surrogate mixing zone that is smaller than practicable. Therefore, the Board will remand this case to the Agency with instructions to issue IBP's NPDES permit with a daily maximum sulfate effluent limit based on the 1,808 mg/l sulfate value recorded by IBP.

ORDER

The Board hereby remands this case to the Agency with instructions to issue IBP's NPDES permit with a daily maximum sulfate effluent limit based on the 1,808 mg/l sulfate value recorded by IBP.

⁵ Even restricting the review to the 177 sulfate values recorded in the November 1991 to August 1993 time period before the NPDES permit was issued on August 26, 1993, the 1,529 mg/l limit would have been violated once.

⁶ The Board notes that this Board decision will not change the 30-day average sulfate effluent limit in IBP's NPDES permit, which was revised upward at hearing from 1067 mg/l to 1,164 mg/l. (Tr. at 5.)

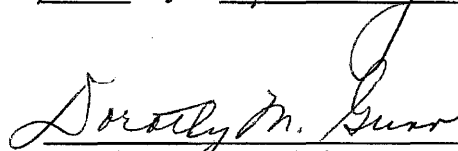
IT IS SO ORDERED.

Board Member Joseph Yi concurs.

Chairman Claire A. Manning and Board Member Marili McFawn dissent.

Section 41 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111 1/2, par. 1041) provides for the appeal of final Board orders within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 1st day of February, 1996, by a vote of 5-2.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board