ILLINOIS POLLUTION CONTROL BOARD
December 15, 1988

VILLAGE OF SAUGET,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 86-57
	)	PCB 86-62
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	(Consolidated)
	)	
Respondent.	)	

MONSANTO COMPANY,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 86-58
	)	PCB 86-63
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	(Consolidated)
	)	
Respondent.	)	

MR. RICHARD J. KISSEL AND MS. SUSAN M. FRANZETTI, OF GARDNER, CARTON & DOUGLAS, AND MR. HAROLD G. BAKER, JR., VILLAGE ATTORNEY, APPEARED ON BEHALF OF PETITIONER, THE VILLAGE OF SAUGET;

MR. PETER H. SMITH APPEARED ON BEHALF OF PETITIONER, MONSANTO COMPANY;

MR. RICHARD C. WARRINGTON, JR., APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by R. C. Flemal):

This matter comes before the Board upon petitions to appeal certain permit conditions filed by the Village of Sauget ("Sauget") and Monsanto Company ("Monsanto"). The separate appeals were consolidated by the Board on July 11, 1986[1].

[1] Briefs of the Petitioners were filed with the Board by Sauget with filings in concurrence by Monsanto. In view of Monsanto's concurrence, references to Sauget's arguments are also references to those of Monsanto.

PROCEDURAL HISTORY

In August 1980 Sauget requested that the Illinois Environmental Protection Agency ("Agency") revise the permit for its Physical/Chemical Plant ("P/C Plant). On October 24, 1984, while negotiations involving the P/C Plant continued, Sauget filed a permit application for a new plant, the American Bottoms Regional Wastewater Treatment Facility ("AB Plant"). At that time, the AB Plant was under construction to provide treatment of flows from the pre-existing P/C Plant as well as the wastewater flows from East St. Louis, Cahokia and the Commonfields of Cahokia. The Agency subsequently consolidated the permitting procedures for the P/C Plant and the AB Plant.

After a series of draft permits and comments received by the Agency from Sauget, Monsanto, and the United States Environmental Protection Agency ("USEPA"), the Agency issued its seventh tentative determination for the P/C Plant, a second tentative determination for the AB Plant and consolidated draft permit on October 2, 1985 (Resp. Grp. Ex. 1, ex. 15)[2]. On November 4, 1985, Sauget commented in response to this latest draft (Resp. Grp. Ex. 1, ex. 12). On November 12, 1985, USEPA informed the Agency by letter that it was requesting its "full 90-day review period" (Resp. Grp. Ex. 1, ex. 11). USEPA sent two draft comment letters on January 17 and 27, 1986, and sent its final comment letter on February 14, 1986 (Resp. Grp. Ex. 1, exs. 7, 4, 5). The USEPA final comment letter was received by the Agency approximately 135 days after the issuance of the October 2, 1985 consolidated draft permit. Sauget received a copy of the final comment letter from the Agency at a March 10, 1986 meeting. On March 21, 1986, the Agency issued NPDES Permits No. IL0065145 and No. IL0021407 for the AB Plant and P/C Plant, respectively. Sauget objected to certain conditions within those permits, and these appeals followed.

Board hearings were held in this matter on August 2, 3 and 4, 1988 in Sauget, Illinois; no members of the public were present.

DUE PROCESS

Section 13(b) of the Environmental Protection Act (Ill.Rev.Stat.1987, ch. 111½, par. 1013(b); "Act") mandated the Board adopt a program which would enable the State to implement

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[2] Respondent's Group Exhibit 1 is a duplicate of the Agency record in this proceeding. The documents contained within the record each have their own exhibit number and will be cited thusly: "Resp. Grp. Ex. _____, ex. _____."

and participate in the NPDES program pursuant to the Federal Water Pollution Control Act ("FWPCA"). This the Board has done (See, In the Matter of: National Pollutant Discharge Elimination System Regulations, 14 PCB 661 (R73-11,12; Dec. 5, 1974). Federal approval to conduct a State permit program was granted and a Memorandum of Agreement ("MOA") between the State and USEPA was approved by the USEPA Administrator on May 12, 1977. Procedural requirements for the NPDES permitting program are contained in 35 Ill. Adm. Code 309 as derived from the Code of Federal Regulations and the MOA.

As a threshold matter, Sauget raises some procedural due process issues. In general, Sauget claims that the Agency failed to follow proper permitting and issuance procedures contained in the Board rules, the MOA, and the federal NPDES rules. Sauget claims this failure of the Agency deprived Sauget of its due process rights because it was not afforded the opportunity to review and comment upon certain conditions added to the permits prior to issuance.

Sauget further claims that it was in substantial agreement with the Agency's October 2, 1985 determination, and that the subsequent final permits were issued incorporating conditions contained in the February 14, 1986 comment letter of USEPA, concerning biomonitoring, toxicity limits, a mixing zone study, chemical monitoring, total organic carbon monitoring, internal limits for the P/C Plant, effluent limits for cadmium and chromium, and revised mercury effluent limits. Inclusion of these conditions is the basis of Sauget's objection to the permits. Sauget objects to the Agency's consideration of the USEPA comment letter because it was received after comment deadlines contained in the MOA and Board regulations had passed. Sauget therefore asks that the Board vacate the contested permit conditions as a matter of law due to these alleged procedural deficiencies related to due process.

The Agency denies that it failed to comply with the applicable procedures. The Agency argues that USEPA is not part of the "public" by delegation of the permit program, but retains its position as an "oversight authority". The Agency reasons therefore that the 30-day public comment provision of 35 Ill. Adm. Code 309.109 would not apply. The record indicates that USEPA believed the 90 day review provision contained in the MOA and federal regulations was applicable to it, or it would not have requested "its full 90-day review period" (Resp. Grp. Ex. 1, ex. 11).

In any event, since the USEPA comment letter was received approximately 135 days after issuance of the seventh tentative determination and draft permit, it is apparent that the USEPA comment letter was late whether one were to apply the 30 day public comment provision contained in the Board regulations or 90

day provisions contained in the MOA. The Agency does not dispute this fact.

The NPDES permitting procedures which Sauget claims the Agency breached were created to ensure that due process is afforded an applicant. The Board finds that whatever procedural due process deficiencies may arguably have existed at the Agency level in this proceeding are now corrected by the proceeding before the Board. The Board proceeding included adversarial hearings including cross examination of all relevant information relied upon by the Agency in making its permitting decision. To remand this proceeding back to the Agency would prove useless in terms of the inherent delay when due process has been afforded through subsequent proceedings at the Board level [IEPA v. Pollution Control Board, 115 Ill.2d 65, 503 N.E. 2d 343 (1986); 138 Ill. App. 3d 550, 486 N.E. 2d 293 (Third Dist. 1985)].

The Board is however compelled to note that it appears that many of Sauget's objections here could have been avoided had the Agency allowed Sauget opportunity to comment on the alterations to the permits prior to final issuance, particularly since there were changes made which were not previously discussed. This departed from Agency practice which allowed much opportunity to comment as indicated by the number of previous tentative determinations and draft permits and comments received thereon. It could also have possibly avoided this appeal to the Board, with its attendant expense to both Sauget and the State and any possible environmental harm which may have ensued during the pendency of this appeal.

MERITS -- GENERAL MATTERS

When a permitting decision is challenged by appeal to the Board, the Board must evaluate the correctness of the Agency's decision by examination of the record according to the appropriate standard of review. This would involve Board review of the record, consisting of the application and any documentation included in the Agency's determination. The Board reviews the evidence in the record de novo, i.e., without deference to the Agency's decision, and does not review the Agency's decision under a manifest weight standard (IEPA v. Pollution Control Board, Id.; City of East Moline v. IEPA, (Slip Op. Sept. 8, 1988). If the Agency has imposed special conditions which the applicant desires to contest, the applicant must demonstrate that the Agency's decision was in error because the data submitted proved that no violation of the Act or Board regulations would occur if the permit were issued without the special conditions (City of East Moline, Id.).

P/C Plant Permit

The P/C permit by its terms contains an April 20, 1986 effective date and a stipulated April 20, 1991 expiration date. The effluent limitations contained on page two of the permit are effective until diversion or July 20, 1986, whichever occurs first[3]. Although it is unclear, the requirements on page three and following are presumably intended to extend for the duration of the permit.

Although the focus of most of Sauget's concerns centers on the AB Plant's permit, several issues related to the P/C Plant permit are also raised. These P/C issues present a particular problem for the Board, in that the P/C Plant no longer operates as an independent discharge for which any NPDES permit is required. Board regulation 35 Ill. Adm. Code 309.102 states that an NPDES permit is required for "the discharge of any contaminant or pollutant by any person into waters of the State" (emphasis added). Thus, even if the Board were to sort out each and every point of contention regarding the P/C permit, and order the Agency to modify the permit according to the Board's instructions, this permit would not apply to any actual discharge. Such a hollow endeavor would be incapable of providing any environmental protection. Neither would it be justified in terms of the resources it would consume.

The Board finds the conditions of the prior permit are sufficient for compliance with the Act and Board regulations until diversion. The Board believes that it is more appropriate under the applicable NPDES rules for regulation of the P/C Plant subsequent to diversion to be accomplished through pretreatment requirements and limitations applicable to the P/C influent wastestream to be contained in the AB Plant NPDES permit. This would further eliminate any alleged inconsistencies between the two permits.

Accordingly, the Board directs that NPDES Permit No. IL0021407, as issued by the Agency to the Sauget P/C Plant on March 21, 1986, is void. The Agency is directed to either extend the prior NPDES permit held by the P/C Plant or to issue a new permit with conditions commensurate with the prior permit, with said permit to be effective until diversion of the P/C Plant's effluent to the AB Plant. The Agency is further directed to

[3] The record indicates that diversion occurred on or about October 1987 (R. 436). Information exists, however, which indicates that the actual date of diversion was November 4, 1987, although this information was obviously not before the Agency at the time of permit issuance [Village of Sauget v. IEPA, PCB 88-18 (Slip Op. September 8, 1988, p. 9)].

incorporate limits for the P/C component into the AB Plant NPDES permit, effective subsequent to diversion.

Internal Dates

A vexing problem for the Board regarding disposition of the AB permit is the selection of appropriate internal dates. In many instances the internal dates within the AB Plant's permit, as issued on March 21, 1986, are now in the past. For most of these, it does not make sense for this Board to affirm these past dates since Sauget is generally incapable of carrying out an action at a time now gone. On the other hand, the record as provided by the parties to this matter does not always provide the Board with guidance sufficient to mandate specific alternative internal dates. As a case in point, the record does not allow the Board to determine whether Sauget has or has not now accumulated some of the biomonitoring data for which the permit originally allowed a specified time.

Accordingly, unless another action is specially directed, the Board directs that the Agency readjust all internal dates to be consistent with the general findings articulated herein, and consistent with any measures that Sauget may have undertaken between the time that Permit No. IL0065145 originally issued and the time of its modification as herein ordered.

Role of USEPA

Throughout this proceeding Sauget argues that the Agency placed such weight on the USEPA comments that the decision of the Agency was not its own, but rather USEPA's. The Board finds this argument unmeritorious. Whatever weight the Agency may have accorded the USEPA comments, the decision was still that of the Agency. That the original conception for a condition may have come through discourse with USEPA, or with any other person for that matter, is simply irrelevant. The whole comment process is, in fact, designed to encourage the Agency to solicit outside perspectives. That the Agency might later adopt some of these as its own is an implicit feature of the comment process.

Sauget also attemps to impugn the Agency's exercise of its authority by pointing to the testimony of Rick Lucas[4], wherein he

[4] Mr. Lucas is an Agency employee with the title of municipal unit manager, responsible for the issuance of state construction permits and NPDES permits; the scope of his responsibilities includes 1,500 municipal permits and approximately 2,000 construction permits (R. 537-538). He reports to Thomas McSwiggin, the permit section manager, over whose signature the permit actually issues.

testified that he would or would not have imposed certain limits if such decision had been solely his. However, Sauget fails to recognize that the decision of the Agency is a collective decisionmaking process, with many individuals necessarily involved. That the Agency may have ultimately reached some decision opposite to the opinion of one of its in-house experts, particularly in a matter as involved as the instant one, is not to be unexpected. Mr. Lucas's dissent therefore does not establish any dereliction of Agency responsibility, and such weight as may be given to Mr. Lucas' opinions goes solely to the weight properly given to the opinions of any person with expertise.

MERITS -- SPECIFIC CONDITIONS

Stipulations

Sauget contested a number of conditions and provisions and parts of conditions and provisions. Prior to hearing, the parties reached agreement on some of these contested matters and entered into written stipulated agreements (Joint Exs. 1 through 4). These stipulations include provisions covering the expiration dates of the permits, the wording of Special Condition 1 regarding the 201 transfer sewer, Special Condition 3 regarding duplicate filings, overflow reporting, pretreatment, and cross references. Sauget requests that the Board order the Agency to modify the permits consistent with the stipulations. The Board will do so except as those conditions relate to the P/C Plant subsequent to diversion. The Board directs that the Agency incorporate the stipulated changes regarding the P/C Plant subsequent to diversion into the AB Plant NPDES permit.

As Sauget notes in its reply brief, there are other provisions to which Sauget objects which the Agency in its brief now indicates that it accedes to, although no written stipulations were entered into. These involve the provisions regarding the outfall description, PCBs, progress reports, and unclear wording regarding the usage of "Plant" where "P/C Plant" was intended. The Board finds that although no written stipulations were entered into, the Agency apparently now accedes to the changes as suggested by Sauget, and the Board directs the changes be made as so suggested; except those changes related to the P/C Plant influent subsequent to diversion shall be incorporated into the AB Plant permit.

Effective Date

The effluent limitations which are set forth in page two of the AB Plant permit became effective on April 20, 1986, the effective date on page two of the permit. Sauget first contends that this date is unattainable, stating that "the effective date

for compliance with the effluent limitations should have followed the date when the AB Plant was reasonably expected to attain operational levels" (Sauget Brief at 28). In support of its position, Sauget cites testimony of George Schillinger who stated that the AB Plant could not have met the effluent limitations by April 20, 1986 because at that point the plant would be in the early stages of physical start-up (R. 140). Schillinger also stated that during the March 10, 1986 meeting between Sauget and the Agency, Sauget presented the Agency with several plans and further stated that it again informed the Agency that it would take Sauget until June for the plant to be operating in order to meet the parameters indicated (R. 141).

Sauget also points to certain inconsistencies between the April 20, 1986 effective date and the "operational date" of April 30, 1986 contained in Special Conditions 7 and 8. The "operational date" is defined in those special conditions as "compliance with limitations on page 2 of this permit" (Resp. Grp. Ex. 1, ex. 1).

The Agency states that it chose dates which limit the discharge of inadequately treated pollutants in the shortest reasonable time, pursuant to 35 Ill. Adm. Code 309.148. The Agency also contends that Sauget did not formally amend the April 30, 1986 start-up date contained in its application.

The Board is hard pressed to believe that the Agency and Sauget could not come to some agreement on the effective date of the effluent limitations. The Board finds the Agency's April 20, 1986 date is clearly arbitrary, especially in light of the fact that it could not point to any information in the record which would support that date. The Board finds however, that no alternative dates are here offered by Sauget. There are a number of dates which are in the record including dates discussed with the Agency at the March 10, 1986 meeting (R. 102, Sauget Ex. 13), and dates suggested by USEPA in its comment letter (Resp. Gr. Ex. 1, ex. 4). The Board directs the Agency to modify the effective date of the effluent limitations contained in NPDES Permit No. IL0065145 and to impose a date related to attainment of operational levels.

Mercury

The effluent restrictions set forth on page two of the AB permit include mercury limitations of 0.0005 mg/l monthly average, and 0.0010 mg/l daily maximum. The 0.0005 mg/l limitation is identical to the Board's general effluent standard for mercury, as found at 35 Ill. Adm. Code 304.126.

Sauget argues that the permit limitations should be reflective of 35 Ill. Adm. Code 304.202 rather than 304.126. Section 304.202 is a site-specific rule granted to the chlor-

alkali plant in St. Clair County and to the Sauget treatment works which receives discharges from that facility. The site-specific rule allows an average discharge of 0.25 lbs/day and a maximum discharge of 0.5 lbs/day of mercury from the chlor-alkali facility. Sauget argues that the calculated concentration limits should therefore have been 0.0015 mg/l with a maximum of 0.0030 mg/l, based upon the averaging rule of 35 Ill. Adm. Code 304.104 (R. 107-108, Sauget Ex. 14). Sauget asks the Board to vacate and remand the mercury limitation contained in the AB Plant permit to reflect the application of the site-specific rule.

The Agency argues that the site-specific rule 304.202 applies only to a facility currently operating chlor-alkali cells in St. Clair County. As the rule states in pertinent part:

> The mercury discharge standards of Sections 304.124 and 307.103 shall not apply to any manufacturing facility which operates chlor-alkali cells, is located in St. Clair County and discharges directly or indirectly into the Mississippi River; or to any publicly owned treatment works which receives such a manufacturing facility's wastewater.

The Agency was informed by letter that, effective December 16, 1985, the Monsanto W.G. Krummrich Plant would no longer operate its mercury cell chlor-alkali facility (Resp. Grp. Ex. 1, ex. 10). Moreover, the record indicates that Monsanto did cease to operate its chlor-alkali facility on or about that date. Monsanto is the only known plant to have operated such facility in St. Clair County.

The Board finds that the Agency is correct that Section 304.202 applies to a facility which is currently operating chlor-alkali cells. Since Monsanto is no longer operating such cells, by its terms, the site-specific rule no longer applies to Monsanto. Thus, there is no continuing justification for basing the AB Plant's mercury effluent limitation on the operation of Monsanto's chlor-alkali facility.

The site-specific rule, however, not only applies to the Monsanto facility, but also to "any publicly owned treatment works which receives such a manufacturing facility's wastewater". As Sauget points out, at the time of permit issuance the waste stream issuing from Monsanto's operations may still have contained some residual mercury left from the chlor-alkali operations. Mr. Stephen Smith of Monsanto testified that all the wastewater in the process "goes through a specific pre-treatment facility which was built as a result and in agreement with the site-specific standard change, and this pre-treatment facility worked hand-in-hand with the process facility in making sure that the wastewater met the appropriate mercury limits." He further stated that to the best of his knowledge, the pre-

treatment facility and collection systems were operating on March 21, 1986, the time of permit issuance (R. at 128-9).

It is therefore reasonable to conclude that although the site-specific rule no longer applies by virtue of the shutting down of Monsanto's operation, it continued to apply to the "publicly owned treatment works" until that works ceased receiving the process wastewater. On March 21, 1986, the time of permit issuance, the publicly owned treatment works which received Monsanto's wastewater was the P/C Plant. It is in fact to be noted that the P/C permit was drafted to continue the previous effluent limit of 0.0035 mg/l for mercury discharges for the P/C Plant until diversion. Sauget indicated no objection to this. In view of the Board's action regarding the P/C permit as explained elsewhere in this Opinion, the question now becomes would the residual mercury be flushed through the system by the time of diversion to the AB Plant such that the AB Plant cannot be said to be receiving wastewater from the chlor-alkali operation.

Sauget only claims that "Monsanto's operation will carry mercury residuals for some period of time after the cells themselves cease being operated" (Sauget Brief at 31), but gives no other indication, based upon the record, of the duration of that time period. Moreover, Sauget presents no argument that the flushing would in any way require an extraordinary time, or that such time should in fact extend beyond the time that the diversion of the P/C Plant actually took place. In conducting its own review of the record, the Board also finds nothing which would indicate the mercury limitation as suggested by Sauget is more appropriate for the AB Plant than the contested limit contained in the permit. Thus, the record falls far short of providing the information the Board legitimately would need to find with Sauget on this matter. The Board therefore finds that Sauget has not persuasively shown that there is basis in the record to conclude that an extraordinary mercury effluent limitation is required or justified for the AB Plant, yet alone that such extraordinary limitation should apply for the full duration of the AB Plant's permit. Given these circumstances, the Board finds that, at a minimum, the residual mercury should be flushed through the system by the time diversion from the P/C Plant to the AB Plant takes place.

In conclusion, the Board finds that Sauget has not shown that sufficient information exists in the record to demonstrate compliance with the Act and Board regulations will result absent the contested mercury limits. The Board therefore finds that the Agency appropriately applied the general effluent standard for mercury and directs the Agency to issue NPDES Permit No. IL0065145 with the mercury limitations as specified in the March 21, 1986 permit.

Cadmium and Chromium

The AB permit includes effluent limitations and requirements for monitoring of cadmium and chromium. Sauget claims that these limits and requirements are unjustified. In support of its position Sauget submitted data showing the average monthly cadmium and chromium discharges from July 1979 to December 1985 from the P/C Plant. The data indicate that chromium averaged 0.0% of the daily limit contained in the permit for hexavalent chromium and 0.02% for trivalent chromium; cadmium averaged 8.8% of the daily limit. There is further evidence that from April 1984 to March 1986 cadmium averaged 11.9% of the daily limit and chromium averaged 1.4% of the daily limit (Sauget Exs. 18 and 15).

The Agency argues that the limits for chromium and cadmium are necessary because the data indicate that the effluent of the P/C Plant (which is now influent to the AB Plant) is close to the ambient water quality standards for these constituents. The proper applicable standards are the General Use standards[5], which specify limits of 0.05 mg/l for hexavalent chromium, 1.0 mg/l for trivalent chromium, and 0.05 mg/l for cadmium (35 Ill. Adm. Code 302.208).

The Board disagrees with the Agency that regarding these constituents the P/C effluent was close to the ambient water quality standards. The data presented indicates otherwise. However, the permit application for the AB Plant presents certain information on other industrial loadings to that plant, some of which indeed contain chromium and/or cadmium at concentrations well above the General Use standards, i.e.:

Facility	Date	Cr^{+6} (mg/l)	Cr^{+3} (mg/l)	Cd (mg/l)
Amax Zinc	10/4/79			.190
Amax Zinc	10/5/79			.110
Cerro Copper	8/31/79	.100		.350
Cerro Copper	10/2/79			.072
Midwest Rubber	9/10/79	.080	1.20	.120
Midwest Rubber	10/2/79		1.36	
Musick Plating	11/13/79			1.10
Musick Plating	11/13/79		150.*	
Musick Plating	11/14/79			1.50

[5] The Board notes that the Agency in its brief compares the P/C Plant effluent to the cadmium and chromium standards for Public and Food Processing Water Supply, rather than to the appropriate General Use standards.

Musick Plating	11/14/79	170.*
Pfizer, Inc.	12/18/79	1.20*
Pfizer, Inc.	12/19/79	1.40*

*Total Chromium
(Resp. Grp. Ex. 1, ex. 24).

There is no positive evidence in the record that all the industries mentioned in the application are influent to the P/C Plant, such that these constituents would be primarily removed prior to reaching the AB Plant; although for some industries this may be true (See, Sauget Ex. 1 at 11).

The testimony of Mr. Clement Vath, a consultant to Sauget, indicates that, in general, biological treatment processes are expected to remove between 35 to 80 percent of a particular metal, depending on conditions. He also stated that he would be very concerned about monitoring and control of heavy metals in the influent and treatment process (R. at 444-6).

The Board finds that Sauget has not shown that sufficient information exists in the record to conclude that compliance with the Act and Board regulations will result absent the contested limits and monitoring requirements for cadmium and chromium. This is especially so since the AB Plant was not yet operational at the time of establishment of the Agency's record, and that monitoring data regarding the Plant was obviously unavailable. Given the nature of the influent to the AB Plant, the Board believes that the Agency was correct to require the limitations and monitoring requirements as set forth in the permit with allowances to reopen according to proper State and federal procedures should the monitoring results indicate that no problem exists.

The Board finds that no changes to the cadmium and chromium effluent limitations as contained in NPDES permit No. IL0065145 are necessary. The Agency is accordingly directed to issue the NPDES permit No. IL0065145 with no changes to these limits.

Total Organic Carbon (TOC)

A requirement for continuous monitoring of the AB Plant's effluent for TOC is set out on page 2 of the AB Plant's permit; no load limits or concentration limits are specified.

Sauget contends that a continuous TOC record is of little or no usefulness, is not necessary to ensure compliance with the Act or Board regulations, and is expensive to obtain. Sauget therefore requests that this provision be stricken.

The Agency counters that a continuous TOC record is "useful at industrial treatment plants to determine spills and activate by-pass systems" (Agency Brief, p. 11), and that it allows "a check on design efficiency" (Id., p. 10).

The Board can find no legitimate justification for imposition of the continuous TOC monitoring condition. The record clearly indicates that a continuous TOC record has been shown to be useful in managing complex influents to wastewater treatment plants, but there is nothing in the record to indicate that it has significant use in the characterization of effluents. The Board finds that the continuous TOC monitoring requirement is not necessary to ensure compliance with the Act and Board regulations. The Agency is accordingly directed to modify NPDES permit No. IL0065145, striking the requirement for continuous monitoring of TOC.

Internal Discharge Limits

The AB and P/C permits at page three contain limits on the internal discharge from the P/C Plant to the AB Plant. Sauget argues that there is no legal basis to impose such limits and, that even if there were, the limits were improperly determined.

The Agency believes these limits are necessary for use as an enforcement tool and for protection of the biomass. The USEPA comment requested that internal limits be imposed "to ensure proper operation of the Sauget P/C Plant once it ceases to discharge directly to the Mississippi River", and further stated that these conditions should be added "in accordance with 40 CFR 122.45(h)" (Resp. Grp. Ex. 1, ex. 4). That regulation reads:

> (h) Internal Waste Streams. (1) When permit effluent limitation or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required by 122.44(i) shall also be applied to the internal waste streams.
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> (2) Limits on internal waste streams will be imposed only when the fact sheet under 124.56 sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is inaccessible (for example, under 10 meters of water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable. (40 CFR 122.45(h) (1987).

The Board finds that Sauget is correct that 40 CFR 122.45(h)(2) does not support the imposition of internal discharge limits in this instance. The Board believes that under general principles of statutory construction, Sauget gives the

correct interpretation that the exceptional circumstances of 40 CFR 122.45(h)(2) are limited to those which relate to difficulty in measuring the concentrations of the contaminants at the point of discharge. The record does not indicate that there would be any difficulty measuring the P/C Plant influent to the AB Plant.

However, due to the nature of the industrial influent to the P/C Plant and the possibility of harm to the AB Plant system, the Board believes the Agency was correct to require the internal limits and monitoring as set out in the permit. The internal limits are necessary to ensure compliance with the Act and Board regulations, including but not limited to 35 Ill. Adm. Code 307.102. This is consistent with 35 Ill. Adm. Code 309.141(d)(1) which allows for more stringent standards than federal standards when necessary to comply with Illinois law.

The Board finds that the internal discharge limits as currently set forth in the AB Plant permit are necessary to ensure compliance with the Act and Board regulations. The Agency is directed to issue NPDES permit No. IL0065145 with the internal limitations as currently included.

pH Sampling

Sauget also objects to internal monitoring for pH for essentially the same reasons as noted above for internal monitoring of other constituents. However, Sauget further objects to the alleged inconsistency of the requirement that influent from the P/C to the AB Plant be monitored daily for pH while the AB Plant permit requires that the discharge from the Sauget P/C Plant to the AB Plant be monitored for pH only twice weekly.

The Board agrees with the Agency regarding the requirement for internal monitoring and discharge limits for the reasons stated above. However, the Board finds no reason in the record that the requirement of daily monitoring rather than monitoring twice weekly is necessary to prevent violations of the Act and Board regulations. The two requirements are inconsistent. The Board finds that no modifications to the P/C Plant permit are necessary, having found that permit void. The Board further finds that no modifications to NPDES permit No. IL0065145 for pH sampling are necessary since said permit contains the correct requirement.

Additional Pollutants

Special Condition 10 of the AB Plant permit contains language specifying that no additional pollutant may be discharged "which contributes or threatens to cause a violation of, any applicable federal or state water quality standard, effluent standard, guideline or other limitation, promulgated

pursuant to the Clean Water Act or the Act, unless limitation for such pollutant has been set forth in an applicable NPDES permit."

Sauget objects to this condition as imprecisely drafted, stating that although this provision is contained in the Board rules at 35 Ill. Adm. Code 309.141(f) [formerly Rule 410(b)], it was declared invalid by the Fifth District in Peabody Coal v. PCB, 3 Ill. App. 3d 5 (1976). Sauget offers alternative language that the permittee "may discharge pollutants not specifically limited in the permit at levels that are not prohibited by state or federal law."

As the Agency points out, the Second District in U.S. Steel Corporation v. PCB, 52 Ill. App. 3d 1 (1977) upheld the validity of the rule. The Board in Caterpillar Tractor Co. v. IEPA, 42 PCB 7 (June 10, 1981) recognized the differing authorities and discussed the purposes and intent of the Rule.

> Underlying this dispute is a question as to whether, in the absence of any conditions to the contrary, an NPDES permit authorizes the discharge of contaminants for which there is no effluent standard or limitation. Caterpillar argues that USEPA regulations contemplate that an NPDES permit based exclusively on federal law would in general authorize the discharge of other contaminants [40 CFR 122.13(a) and 122.61; 45 Fed. Reg. 33,428, 33,311, 33,448].
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> Rule 410(b) is somewhat different from the USEPA interpretation. A permit would authorize the disharge only where the discharges did not violate any Board or federal standards. The Board finds that Caterpillar's proposed permit condition is essentially a restatement of Rule 410(b).
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> If the NPDES permit were construed as actually prohibiting the discharge of everything not mentioned in the permit, it would be impossible to comply with it. Because of the broad definition of contaminant, it is possible for discharges to contain an indefinite number of contaminants. It could be impossible for a discharger to ensure that nothing other than what is permitted by the permit were discharged. The general policy that the permit should state with certainty the discharger's duty would not be satisfied.
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> ***

> [t]he language of Rule 410(b) . . . authorizes the discharges of other parameters which do not violate state or federal standards.
>
> The Agency is required to include effluent limitations and other requirements established by Board regulations or USEPA regulations (citations omitted). The Agency must include more stringent state requirements. The interpretation of the effluent limitations given by Rule 410(b) is more stringent than the USEPA interpretation which authorizes other discharges even if they violate Board regulations or USEPA standards. The Agency is therefore required to include a permit condition based on Rule 410(b). (42 PCB 8-10)

The Board respectfully maintains its disagreement with the Peabody finding that former Rule 410(b) was generally invalid. The Board further notes that the construction which the Board has given the rule on an "as applied" basis in the Caterpillar case is not dissimilar from the alternative language suggested by Sauget. The Board accordingly finds that the Agency's inclusion of Special Condition 10 as currently worded is necessary to ensure compliance with the Act and Board regulations. The Board further finds that no modificaton of Special Condition 10 of NPDES permit No. IL0065145 is necessary.

Reopeners

The AB Plant permit contains conditions which may be reopened after review of certain documentation (e.g., monitoring results); Sauget objects to these reopeners. The Board notes that Sauget's main concern here is evidently not whether the Agency or Sauget has authority to reopen a permit condition, but rather whether the due process safeguards which accompany such reopeners under applicable State or federal law should also be included in the permit.

The Board agrees with the Agency that whatever due process safeguards are of concern to Sauget, such safeguards exist and are applicable whether or not explicitly stated in a given permit. The Board believes that it is unnecessary for the Agency to modify a permit to include such safeguards in the same way it is unnecessary for the Agency to add the general due process guarantees of the State or Federal Constitutions. The Board further notes that the last sentence of Special Condition 20 states that "[a]ny permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation." This the Board finds sufficient. Therefore no modifications to the reopener clauses contained in NPDES permit No. IL0065145 are necessary.

Whole-Effluent Toxicity

Special Condition 16 of the AB Plant permit imposes an acute whole-effluent toxicity limit of 1.0 TUa[6] on the effluent from the AB Plant, subject to provisions that the limitation becomes effective one year after diversion of the P/C Plant's effluent to the AB Plant or on April 30, 1987, which ever is earlier, and that "[i]f, after 2 years of monitoring, the effluent is not found to be toxic, then the permit may be modified and the frequency of biomonitoring used to determine compliance with the TUa limit reduced". Bioassays are to be done quarterly.

There is apparently no disagreement between the parties that toxicity testing on the AB Plant's effluent is appropriate. Rather, the disagreement is whether a toxicity limit should be in place prior to an actual demonstration that the AB Plant's effluent will be toxic. There is further disagreement as to the nature of the toxicity limit, if such limit is to be applied.

In support of their respective positions, both Sauget and the Agency rely in part on guidance provided in the USEPA document Technical Support Document for Water Quality-based Toxics Control, Sauget Ex. 17[7]. This document provides for two approaches, a "direct" approach via which a whole-effluent toxicity limit is applied without or prior to effluent characterization for toxicity, and a "tiered" approach via which effluent characterization occurs prior to and and is utilized in determining an appropriate whole-effluent toxicity limit (Sauget Ex. 17 at 14). The Agency applied the "direct" approach in issuing the AB Plant permit; Sauget contends that the "tiered" approach is the correct approach.

Aside from the guidance provided in the USEPA guidelines, the Board initially notes that application of the "direct" approach has foundation in Illinois law. 35 Ill. Adm. Code 302.210 establishes a water quality standard for substances toxic

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[6] TUa (acute toxicity unit) is the reciprocal of the effluent concentration, expressed as a fraction, which causes the specified mortality. Thus a 1.0 TUa effluent is an effluent which at 100% concentration causes 50% mortality over the test period, a 2.0 TUa effluent causes this mortality at 50% concentration, etc. Thus, the greater the TUa value, the greater the toxicity of the effluent.

[7] Sauget Ex. 17 was submitted at hearing (R. 202-203) by Sauget and without objection from the Agency. Additionally, because it was published in September 1985, it may be said to have been reasonably available to the Agency at the time the Agency issued its permit decision in this matter.

to aquatic life. Furthermore, 35 Ill. Adm. Code 304.105 requires that no effluent shall cause a violation of any applicable water quality standard, and authorizes the Agency, pursuant to Section 39 of the Act, to impose whatever effluent limits are necessary to ensure compliance with the water quality standard. These two sections, when taken together, provide clear authority for the imposition of an effluent toxicity limit whenever such limit is necessary to ensure compliance with the Board's water quality standard for toxicity.

These observations not withstanding, the Board finds that the terms of Special Condition 16 are arbitrary as here applied. Calculation of a sound whole-effluent toxicity limit using the direct method is dependent upon the ability to factor in dilution and mixing (R. at 206-209, 215-220; Sauget Ex. 17 at 10-11), a consideration which has not been taken into account by the Agency.

Based on overwhelming testimony in support of the tiered approach (R. at 205-209, 220-221, 309-311, 316-318, 321-322, 325-336) plus the USEPA's own analysis of the advantanges and disadvantages of the two approaches (Sauget Ex. 17 at 14), the Board is persuaded that the tiered approach is best applied in the instant matter. Accordingly, the Agency is directed to modify permit No. IL0065145 with changes to Special Condition 16 consistent with applying a tiered approach to whole-effluent toxicity characterization and limitation.

Biomonitoring

Special Condition 17 of the AB permit requires a biomonitoring program consisting of testing for acute and chronic toxicity as well as human health concerns. Testing is to commence after the AB Plant attains full operational level (January 20, 1987) and is to be conducted for one year. Special Condition 18 of the AB permit further specifies that the Agency "will modify this permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring program, should a review of the results of the biomonitoring identify toxicity concerns".

Based on the arguments presented in the briefs, there is less disagreement over this issue than appears in earlier documents. Sauget does not contest the imposition of a biomonitoring requirement per se. Rather, it opines that an earlier biomonitoring program, referred to as the "Park Proposal", as offered by the Agency, contains provisions which are more appropriate than the program included in the AB permit as issued. The Agency's position is that the biomonitoring condition as identified in Special Condition 17 is being read too narrowly by Sauget:

> It is important to note that the contested permit condition calls for a biomonitoring Plan to be produced by the discharger, rather than specifying every detail of the program. By allowing such flexibility the Agency intended the actual biomonitoring activity be a mutual decision. Consequently, Petitioner's concern about appropriate Ames tests, suggested duckweed use, and mixing zone studies are issues that are resolvable in the process of submitting and approving a plan. They are not unreasonable as setting forth the essential concerns of human health, testing for aquatic plant toxicity, and documentation of the actual dilution capacity of the Mississippi River. (Agency Brief, p. 19; emphasis in original)

Notwithstanding the Agency's intentions to have the biomonitoring program be "flexible" and to be a "mutual decision", Sauget has a legitimate point that the actual language included in Condition 17 is not reflective of these intentions. Accordingly, the Board directs the Agency to modify Special Condition 17 of NPDES permit No. IL0065145 to be reflective of the intentions of the Agency as identified in the quotation above. The Board finds these changes are necessary to ensure compliance with the Act and Board regulations.

Mixing Zone Studies

Special Condition 19 of the AB Plant permit requires the permittee to submit documentation, in conjunction with the plan for biomonitoring, of the actual mixing patterns of the discharge from the AB Plant with the Mississippi River.

Sauget objects to the condition because it believes the provision fails to clearly identify the purpose of the mixing zone study, fails to properly interrelate this requirement to other conditions in the permit, and fails to allow a reasonable length of time to complete and submit the mixing zone study to the Agency. Sauget further objects to the condition because it does not set forth what type of mixing zone study is to be done.

The Board notes that Sauget's objections here are essentially the same as those to the biomonitoring condition. For the same reasons as stated above regarding biomonitoring, the Board directs that the Agency modify Special Condition 19 of NPDES permit No. IL0065145 to be reflective of the intentions of the Agency, and to identify what type of mixing zone study is necessary for the information desired.

Chemical Monitoring and Identification

Condition 20 of the AB Plant permit contains requirements for chemical monitoring and identification for a list of chemicals contained in the permit. The monitoring is required for P/C Plant effluent, AB Plant treated flow prior to confluence with the P/C Plant effluent and any recycle streams, the AB Plant effluent, and the AB Plant secondary sludge. The condition also contains reporting requirements.

Sauget does not object to testing for and reporting priority pollutants, but believes that the list of chemicals for which Sauget would be required to test is too exhaustive and unnecessary to prevent violations of the applicable regulations. Sauget's other objections to this condition involve internal dates, inability to comply with the dates set forth in the permit, and the testing methods required.

The Agency asserts that given the lack of specificity in the application regarding industrial contributions to the AB Plant wastestreams, testing for the chemicals noted in the permit is necessary to ensure compliance with the Act and Board regulations. The Board agrees.

The Board notes that there is some flexibility in the testing methods, as indicated by the Agency in its brief and noted in the USEPA comment letter (Resp. Grp. Ex. 1, ex. 4). The permit also contains some reference to this flexibility. The paragraph which discusses the testing methods for priority and non-priority pollutants also contains language which indicates flexibility (i.e, "identification shall be attempted."). However, the intention of the Agency and USEPA to work with Sauget in the development of a plan based on testing results should be clarified in the permit as well as any necessary information contained in the the USEPA comment regarding testing protocols. The permit should state with clarity the discharger's duty (Caterpillar Tractor Company v. IEPA, 42 PCB 7, June 10, 1981). The Board refers to a prior section of this Opinion for its findings on the internal dates issue.

The Agency is directed to modify Special Condition 19 of NPDES permit No. IL0065145 to be reflective of the intentions of the Agency and to notify the permittee with clarity what it is expected to report.

Anticipated Bypass

Special Condition 9(A)(i) of the AB Plant permit contains language concerning anticipated bypasses. Sauget claims that the language is vague[8]. The condition states:

> If the permittee knows sufficiently in advance of the need for a bypass, it shall request a variance from the Illinois Pollution Control Board, submit prior notice, if this is not possible, then at least ten days before the date of the bypass the Agency shall be notified.

Sauget specifically questions the meaning of the phrases "sufficiently in advance" and "submit prior to notice".

The Agency states that this language is standard language in all permits. The Agency further states that the "sufficiently in advance" question has historically been resolved by the Board in enforcement cases. However, the Agency cites no authority for that belief. There is testimony in the record that Agency permit writers believed the language was not clear (R. 697-8).

As stated above in the section covering chemical monitoring, the Board believes that permit conditions should be stated clearly, in order for a permittee to know what its specific duties are. This is especially necessary when the consequences of non-compliance include enforcement actions. The Board believes that Sauget is correct that the above quoted language is vague and should be redrafted. The Agency is directed to modify Special Condition 9(A)(i) of NPDES permit No. IL0065145 to include language which is clear and continues to reflect the Agency's intent.

The Board finds that all findings and directives contained in this Opinion are necessary to ensure compliance with the Act and Board regulations. This Opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

The Illinois Environmental Protection Agency is hereby ordered to modify NDPES Permit No. IL0065145 consistent with the Board's findings and directives in the accompanying Opinion.

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1987 ch. 111½ par. 1041, provides for appeal of final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

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[8] In its brief Sauget only objected to this language in condition 8(A)(i) of the P/C Plant permit. However the identical language occurs in Condition 9 of the AB permit. It is assumed that if Sauget objects to the language in one permit, it would object to it in both.

IT IS SO ORDERED.

B. Forcade dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 15th day of December, 1988, by a vote of 6-1.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board