ILLINOIS POLLUTION CONTROL BOARD
August 22, 1984

DEAN FOODS, Petitioner,	)	
v.	)	PCB 81-151
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	

RICHARD J. KISSEL AND THERESA YASDICK (MARTIN, CRAIG, CHESTER & SONNENSCHEIN), ATTORNEYS-AT-LAW, APPEARED ON BEHALF OF PETITIONER; AND

WAYNE L. WIEMERSLAGE, ATTORNEY-AT-LAW, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board upon a petition for review of conditions of an NPDES permit filed by Dean Foods ("Dean") on October 1, 1981. The Illinois Environmental Protection Agency ("Agency") filed the Agency Record on December 28, 1981. A public hearing was held on March 28, 1984, in Chicago. There is no indication in the record of public participation.

This matter concerns NPDES Permit NO. IL 0003395 issued to Dean on September 2, 1981. The permit authorized discharges from Dean's Chemung, Illinois facility to Piscasaw Creek, a tributary of the Kishwaukee River, via a small drainage ditch. Dean challenges the location at which sampling for compliance with certain effluent limitations is designated and the monitoring frequency for fecal coliform. The facility occupies 2.8 acres on the east end of a 13-acre lot, and is the company's largest dairy processing facility (R. 43). It employs approximately 154 people and processes over one million pounds of milk per day, as well as numerous cultured milk products, ice cream and non-dairy products. The products from this facility are distributed primarily in Northern Illinois and Wisconsin, with a portion going to other Dean plants in four other states (R. 43).

Dean's wastewater treatment system consists of an activated sludge wastewater treatment process followed by two polishing lagoons and a rock filter. The treatment facility occupies three acres on the west end of the property. During the 1960's, Dean reduced the volume of contact processing water flowing through the plant by creating a non-contact cooling stream (R. 45). This modification resulted in a lower volume of wastewater requiring

treatment. Dean recombines the treated contact waste stream and the non-contact cooling stream immediately prior to discharge into the small drainage ditch leading to Piscasaw Creek. Dean currently has a petition for site-specific water pollution control regulations for the Chemung facility pending before the Board which is docketed as R 82-25.

The first, and most significant, condition of the 1981 permit that Dean objects to concerns the location of the sampling point for compliance with biochemical oxygen demand (BOD), total suspended solids (TSS), chlorine and fecal coliform effluent limitations. The permit requires Dean to sample for these before admixture of the treated contact waste stream and the non-contact cooling water stream. Prior NPDES permits issued in 1975 (Agency Rec. 31) and 1977 (Agency Rec. 41 and 43) designated the sampling point after admixture of the two streams immediately before final discharge. This sampling point had been requested by Dean in 1973 in a letter to the Agency on the theory that Rule 401, now recodified as 35 Ill. Adm. Code 304.102, permitted such a mixing of waste streams if the "best degree of treatment of wastewater consistent with technological feasibility, economic reasonableness and sound engineering judgment" were provided (Agency Rec. 1). The Agency, in a response letter, requested more information concerning removal efficiences (Agency Rec. 2). Dean provided this information (Agency Rec. 4) and, in a letter dated December 7, 1973, the Agency granted Dean's request (Agency Rec. 5). The first two drafts of Dean's 1981 NPDES permit provided for sampling at the point after admixture of the two streams (Agency Rec. 49 and 57). The third draft and final permit designated the original sampling point for flow, pH and ammonia, but designated a point before admixture for BOD, TSS, chlorine and fecal coliform (Agency Rec. 61 and 64).

The second condition that Dean challenges in its petition is the monitoring frequency for fecal coliform. The 1981 permit, as well as all previous permits, require Dean to monitor for fecal coliform on a weekly basis. However, past permits included a provision whereby monthly monitoring for fecal coliform would be permitted if done in conjunction with monitoring for chlorine residual. Dean had followed this condition in the past and monitored on a monthly basis (R. 321). The first draft permit presented to Dean on April 3, 1983, dropped this provision allowing an alternative to weekly monitoring.

Dean personnel met with Agency personnel in Maywood on April 14, 1981, to discuss the monitoring parameters, as well as the monitoring frequency for fecal coliform (R. 185). On April 17, 1983, a second draft permit was issued which retained the weekly monitoring requirement, as well as the old sampling point after admixture. Dean personnel met again with Agency personnel in Springfield on July 10, 1981. At that time, Dean saw the third draft permit dated July 7, 1981, which changed the sampling point from after to before admixture (R. 186-7). The Agency explained that the point had been changed because of Rule 401(a) (304.102(a)) and requested additional information regarding Dean's treatment

system (R. 292). Dean's consulting engineer responded with a letter explaining the original rationale for setting the sampling point after mixture of the two streams and provided summarized water treatment data for 1980 and 1981 (R. 187). The final permit was issued on September 2, 1981.

In support of their decision to change the monitoring point the Agency testified that they needed information on the basis of design and the efficiences of each of the individual units, an analysis of whether Dean could provide any additional treatment that would significantly improve their effluent, a schedule of compliance for TSS effluent limitations and an evaluation of the water quality impact from its discharge in order to properly evaluate Dean's treatment process (R. 291-292). The Agency felt that Dean had not been forthcoming with this information prior to issuance of the permit. The Agency questioned Dean's assertion that "best degree of treatment" was being provided because recent discharge monitoring reports (DMR's) showed that Dean was violating both the 30 day average and the maximum limitations for TSS on a consistent basis, even after dilution with non-contact cooling water (Agency Rec. 18). Dean's Notice of Noncompliance (NON) for May 1, 1981, stated that they would not be able to meet TSS standards during the coming spring and summer months (Agency Rec. 19). The information the Agency had on Dean's basis of design for treatment was out of date. Some of the information dated from the 1960's. Since that time, there had been treatment modifications and the characteristics and quantity of Dean's waste had changed (R. 292).

Dean asserts that the Agency is estopped from changing the sampling point and the monitoring frequency for fecal coliform. Dean also argues that they are entitled to sample after admixture under 304.102(a) because they provide the "best degree of treatment of wastewater consistent with technological feasibility, economic reasonableness and sound engineering judgment." The Agency argues that they are not estopped to change these permit conditions and that 304.102 does not allow pre-monitoring admixture of a waste stream and a non-contact cooling stream prior to monitoring regardless of what degree of treatment is provided.

After prolonged discovery, numerous motions to the Hearing Officer and appeals to the Board, this matter came to hearing on March 28, 1984. Dean presented four witnesses; John Hetrick, an environmental consultant to Dean and former employee; Dennis Busch, Dean's Director of Environmental Control; Allen E. Fehr, a consulting engineer retained by Dean; and Dr. Allison R. Brigham, an Associate Aquatic Biologist at the Illinois Natural History Survey, who was retained by Dean to study the Piscasaw Creek. The Agency presented one witness, Mark E. Schollenberger, the Agency engineer who wrote Dean's 1981 permit. Dean incorporated portions of this witness' testimony into their case in chief. The Hearing Officer, in a written statement evaluating the

credibility of the witnesses, felt that credibility was an issue regarding witness Schollenberger. The Hearing Officer stated that while he did not believe Schollenberger was lying, he was unsure and evasive on cross-examination concerning his reasons for writing the permit as he did (Hearing Officer's Statement of Credibility, April 10, 1984).

DE NOVO HEARING ISSUE AND EVIDENTIARY OBJECTIONS

The Agency, at hearing, objected to the introduction of certain evidence presented by Dean on the basis that the proper evidentiary scope in a permit appeal was limited to the facts before the Agency at the time the permit was issued. The Agency cites both Appellate cases and Board decisions that have consistantly defined the scope of a permit appeal under Section 40 of the Act as whether or not, based upon the facts of the application, the applicant has provided proof that the activity in question will not cause a violation of the Act or of the regulations. The Agency argues, relying on Illinois Environmental Protection Agency v. Illinois Pollution Control Board and Alburn, Inc., 74 Ill. Dec. 158, 455 N.E. 2d 188 (Ill. App. 1 Dist. 1983), Oscar Mayer & Co., v. EPA, PCB 78-14, 30 PCB 397, June 14, 1978, and EPA v. Allaert Rendering, Inc., PCB 76-80, 35 PCB 281, September 6, 1979, that a petitioner must show compliance with the Act and regulations based solely upon the permit application and supporting documentation actually submitted by the applicant.

The Agency specifically objected to a 1983 report prepared by Dr. Allison R. Brigham on the biology of the Piscasaw Creek watershed and the impact of Dean's discharge; a report dated September 24, 1981, by Fehr, Graham & Associates evaluating tertiary wastewater treatment alternatives for Dean's Chemung facility; information and data regarding Flotafilter units and microscreening; BAT-BCT Effluent Guidelines adopted later than September 2, 1981, and any other facts or information not presented to the Agency prior to September 2, 1981 (Agency Objection No. 1). The Agency also objected to the admission of any evidence relating to Agency procedures, criteria and activities pertaining to the permit decision-making process relating to Dean's latest and earlier NPDES permits, or relating to USEPA effluent guidelines for the dairy industry (Agency Objection No. 2). The Hearing Officer received the evidence and deferred the question of admissibility to the Board. The Agency, in its brief, requests that certain portions of the hearing transcript that relate to the objectionable evidence be stricken.

Dean relies on 35 Ill. Adm. Code 105.102(a)(8) as a basis for presenting evidence developed after the final NPDES permit was issued on September 1, 1981, and not contained in the Agency Record. Section 105.102(b)(8) applies to NPDES permit appeals and provides that:

> The hearings before the Board shall extend to all questions of law and fact presented by the entire record. The Agency's findings and conclusions on questions of fact shall be prima facie true and correct. If the Agency's conclusions of fact are disputed by the party or if issues of fact are raised in the review proceeding the Board may make its own determination of fact based on the record. If any party desires to introduce evidence before the Board with respect to any disputed issue of fact the Board shall conduct a de novo hearing and receive evidence with respect to such issue of fact.

This section was construed in Olin Corp. v. IEPA, PCB 80-126, 45 PCB 389, February 17, 1982, as follows:

> "The hearing de novo provisions must be construed narrowly; otherwise permit applicants will be tempted to withhold facts at the Agency level in hopes of a more friendly reception before the Board. This would encourage appeals and would place the Board in a position of being the first agency to evaluate the factual submissions. This would distort the separation of functions in the Act.
>
> The fourth sentence allows a hearing de novo only with respect to 'any disputed issues of fact.' This refers only to an Agency factual determination which was disputed before the Agency" (p. 4).

In the present case, Dean has submitted evidence not in the Agency Record related to whether or not the "best degree of treatment of wastewater consistant with technological feasibility, economic reasonableness and sound engineering judgment "was provided at the Chemung facility. Dean believes that providing this level of treatment entitles them to monitor after their waste stream has been diluted with non-contact cooling water. After the third draft 1981 permit was presented to Dean, Dean responded with two letters to the Agency objecting to the changed monitoring point and explaining the original rationale for allowing this monitoring point (Agency Rec. 62 and 63). Dean also submitted a summary of treatment plant operation data for 1980 and part of 1981 (Agency Rec. 63). Dean has disputed the factual issue of whether or not it is providing "best degree of treatment" at the Chemung facility before the Agency. According to the Olin standard, a de novo hearing on this issue should be allowed.

While the Board may look at the issue of "best degree of treatment" in a de novo manner, the Hearing Officer incorrectly admitted evidence beyond the proper scope allowed in a permit appeal. The Appellate Court, in IEPA v. PCB and Alburn, Inc., 455 N.E. 2d at 194, clearly held that:

> "The sole question before the Board in a review of the Agency's denial of a permit is whether the petitioner can

> prove that its permit application as submitted to the Agency establishes that the facility will not cause a violation of the Act. (Ill. Rev. Stat. 1979, ch. 111½, par. 1040). If the Agency has granted the permit with conditions to which the petitioner objects, the petitioner must prove that the conditions are not necessary to accomplish the purposes of the Act and therefore were imposed unreasonably. The Board may not be persuaded by new material not before the Agency that the permit should be granted. (Soil Enrichment Materials Corp. v. Environmental Protection Agency (1972), 5 Ill. P.C.B. Op. 715.) When reviewing the Agency's denial of a permit or imposition of any conditions, "the decision of the Board shall be based exclusively on the record before the Agency including the record of the hearing, if any ***." Ill. Rev. Stat. 1979, ch. 111½, par. 1040; Peabody Coal Co. v. Environmental Protection Agency (1979), 35 Ill. P.C.B. Op. 380."

IEPA v. PCB and Alburn, Inc. deals with construction and operating permits for a liquid waste incinerator. However, Section 40 applies to both NPDES and non-NPDES permits alike. In Peabody Coal Co. v. EPA, supra., an NPDES permit appeal, the Board stated that: "The issue in a Section 40 petition is whether or not, based upon the facts of the application, the applicant has provided proof that the activity in question will not cause a violation of the Act or of the regulations." The Board's scope of inquiry is clearly limited in both NPDES and non-NPDES permit appeals.

The Hearing Officer's admission of evidence developed after the issuance of the final permit was in error. The Board overturns the Hearing Officer's admission of the evidence. However, Dean's attempts to focus on the issue of whether or not "best degree of treatment" was provided at the Chemung facility are misdirected. The Board has reviewed the full record from the March 28, 1984, hearing, even including the evidence developed after the final permit was issued, and concludes that under the proper interpretation of 304.102 this excluded evidence is irrelevant to the resolution of this permit appeal.

DILUTION ISSUE

Dean argues that 35 Ill. Adm. Code 304.102 entitles them to monitor after admixture of a treated contact waste stream and a non-contact cooling stream because they provide the "best degree of treatment of wastewater consistent with technological feasibility, economic reasonableness and sound engineering judgment." This interpretation of the rule is not supported by the terms of the rule, the intent of its author, or Board opinions on this issue. 35 Ill. Adm. Code 304.102 provides as follows:

Section 304.102 Dilution

a) Dilution of the effluent from a treatment works or from any wastewater source is not acceptable as a method of treatment of wastes in order to meet the standards set forth in this Part. Rather, it shall be the obligation of any person discharging contaminants of any kind to the waters of the state to provide the best degree of treatment of wastweater consistent with technological feasibility, economic reasonableness and sound engineering judgment. In making determinations as to what kind of treatment is the "best degree of treatment" within the meaning of this paragraph, any person shall consider the following:

1) What degree of waste reduction can be achieved by process change, improved housekeeping and recovery of individual waste components for reuse; and

2) Whether individual process wastewater streams should be segregated or combined.

b) In any case, measurement of contaminant concentrations to determine compliance with the effluent standards shall be made at the point immediately following the final treatment process and before mixture with other waters, unless another point is designated by the Agency in an individual permit, after consideration of the elements contained in this section. If necessary the concentrations so measured shall be recomputed to exclude the effect of any dilution that is improper under this Section.

In the Board Opinion adopting the Dilution Rule, Mr. Currie stated that:

"Removal of contaminants from wastewater is generally preferable to dilution to meet standards. Even if concentrations are diluted sufficiently to avoid immediate harm to those using the stream, excessive reliance on dilution rapidly exhausts the assimilative capacity of the water, especially if, as is often the case, the effluent standard is more lenient than the corresponding standard for stream quality. Thus in order to make room for future industry and population growth, as well as to keep the waters as clean as practicable rather than seeking merely marginal compliance with stream quality standards, it is desirable to require the employment of readily available treatment methods to reduce as much as practicable the total quantities of contaminants discharged to the waters before resorting to dilution either before or after discharge...

> ...On the basis of this policy the Board initially proposed that the effluent standards be met without any allowance for dilution. Although some industry spokesmen challenged this in principle, most acknowledged that intentional dilution in lieu of treatment should be forbidden. There was considerable controversy, however, over the possibility that the absolute ban on dilution might be construed to prohibit the mixing of several streams contaminated with different wastes before treatment. Recognizing that in many cases more effective treatment can be obtained by separate treatment of different waste streams at their source but that economics does not always permit such separate treatment, we published a revised dilution standard proposal leaving some room for engineering judgment as to the desirability of separating or combining waste streams for treatment. That revised proposal, which has generally met with acceptance, was retained in the proposed final draft and in today's regulation with the addition of one sentence making it clear that the provision for measurement after treatment does not undermine the general prohibition against dilution at any stage."

It is clear that the Board intended to prohibit dilution as a means of complying with effluent limitations. This general policy is clear from both the language of the regulation and the opinion. In certain circumstances, however, the Board recognized that it may be desirable to combine two or more <u>different waste streams</u> rather than treat these waste streams separately. The purpose for combining two or more waste streams is to increase the effectiveness of the treatment or to treat more economically. The choice of whether to combine separate waste streams for treatment is left to "engineering judgment." It is clear that the streams that may be combined must be waste streams and the purpose of such admixture is for effective and economic treatment. The rule clearly does not create a right to dilute a waste stream with a non-waste stream even if "best degree of treatment" is provided.

Board opinions in this area support this interpretation of the Dilution Rule. In <u>Revere Copper and Brass Inc. v. IEPA</u>, PCB 80-117, 54 PCB 81, September 23, 1983, the Board upheld NPDES permit conditions that designated effluent monitoring of wastewater before mixture with other waters. The Board found that Revere had not demonstrated "best degree of treatment" to permit combining of wastewater sources. Furthermore, the effluent was impermissibly diluted with non-contact cooling water and stormwater from roof drains and a parking lot. 54 P.C.B. at 84. In <u>Illinois Nitrogen Corp. v. EPA</u>, PCB 80-144, 44 PCB 139, December 3, 1981, a variance petitioner requested a measuring point that would allow and encourage the petitioner to mix a sanitary stream with boiler blowdown, process water and cooling water prior to treatment. The Board denied this request because it would result in a lower level of contaminant removal and undue dilution in violation of Rule 401(a). The Board construed Rule 401(a) to proscribe such dilution . 44 PCB at 146.

Section 304.102 proscribes dilution as a means of complying with effluent limitations. The regulation provides for mixture of waste streams in certain limited circumstances. It clearly proscribes admixture of non-contact cooling water immediately prior to measurement and discharge. Dean's contention that they have earned the right to dilute as a reward for providing the "best degree of treatment" is not supported by the facts or law. The admixture of the two streams is unrelated to any type of treatment process. The early correspondence in 1973 between the Agency and Dean refer to the streams as "waste" streams. Whether or not this was a unilateral misunderstanding regarding the nature of the cooling stream on the part of the Agency or a misrepresentation by Dean is irrelevant. The overriding effect of combining the streams is dilution. Even with this dilution, Dean is unable to meet the effluent limitations in its permit. The Agency decision to relocate the sampling point was reasonable in the circumstances and correct as a matter of law.

ESTOPPEL ISSUE

Dean argues that the Agency is estopped from changing the two contested permit conditions. The estoppel principle has been applied to both the Agency and the Pollution Control Board in certain circumstances. The facts in the present case, however, do not create a situation where estoppel can be properly applied.

The Board, in E.I. Du Pont De Nemours & Co. v. EPA, PCB 79-106, 39 PCB 348, August 21, 1980, outlined the proper circumstances for the application of estoppel to an Agency decision. The Board precluded the Agency from reclassifying an industrial ditch "where no environmental improvement will result, where there has been no change in the facility or regulations and where the permittee has expended money in reliance on the previous classification." 39 PCB at 351. In the present case, the increased fecal coliform monitoring frequency will potentially improve the Agency's ability to analyze Dean's treatment process. Changing the sampling point will preclude Dean from using dilution as a treatment process. Since the original 1973 Agency designation of the monitoring point there have been changes in Dean's process and treatment operation (R. 47-48). Dean was unable to meet TSS limitations in the months prior to the issuance of the 1981 permit. Dean has not expended money in reliance on this previous determination. Dean may be required to expend money in the future as a result of these conditions but this type of expense is clearly within the intent of the Act and regulations. Dean has not met the requirements for application of estoppel to either of the contested conditions.

The burden in a permit appeal is on the petitioner to prove that, in the case of contested permit conditions, the conditions are not necessary to accomplish the purposes of the Act and therefore were imposed unreasonably. IEPA v. PCB and Alburn Inc., 455 N.E. 2d at 194. Dean has not met this burden for either of these conditions. The Agency has the duty to impose

conditions in permits that will result in compliance with the Act and Board regulations. The permit conditions on appeal are, reasonably directed towards this goal. The conditions are therefore affirmed.

This Opinion constitutes the Board's findings of facts and conclusions of law in this matter.

ORDER

The Board has reviewed the contested conditions in NPDES permit No. IL 0003395 and affirms those conditions.

IT IS SO ORDERED.

Chairman J. D. Dumelle concurred.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 22nd day of August 1984 by a vote of 6-0.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board