

ILLINOIS POLLUTION CONTROL BOARD

October 16, 1992

CITIZENS UTILITIES COMPANY )  
OF ILLINOIS, )  
 )  
Petitioner, )  
 )  
v. ) PCB 85-140  
 ) (Permit Appeal)  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY, )  
 )  
Respondent. )

DANIEL J. KUCERA, CHAPMAN AND CUTLER, APPEARED ON BEHALF OF PETITIONER;

LISA E. MORENO, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by M. Nardulli):

This matter comes before the Board upon a remand directive of the Illinois Appellate Court, Third Judicial District. (Citizens Utilities Company of Illinois v. Pollution Control Board (3d Dist. 1990), 193 Ill. App. 3d 93, 549 N.E.2d 920.) On January 5, 1989, prior to remand, the Board upheld the Agency's imposition of a condition in Citizens Utilities Company of Illinois' (Citizens) NPDES permit for its West Suburban Treatment Plant No. 2 located in Bolingbrook, Will County, Illinois. On March 9, 1989, the Board denied Citizens' request for reconsideration noting, inter alia, that it could not consider evidence in a permit appeal which was not considered by the Agency in rendering its permit decision. Citizens' appealed and the Illinois Appellate Court reversed the Board's holding regarding the scope of review in a permit appeal and remanded the case back to the Board for a decision based on the new evidence. Upon remand, on October 4, 1990, a hearing was held in Joliet, Illinois. Neither Citizens nor the Illinois Environmental Protection Agency (Agency) presented any witnesses. Rather, the parties presented a joint stipulation with seven exhibits from the record in In the Matter of: Amendments to 35 Ill. Adm. Code Section 304.301, Exception for Ammonia Nitrogen Water Quality Violation, R88-22.

**BACKGROUND**

The Board will not reiterate all the facts of this case as those facts are set out in the Board's 1989 opinion. (Citizens Utilities Co. v. IEPA (January 5, 1989), PCB 85-140.) We note that the instant appeal concerns the Agency's imposition of a condition in Citizens' NPDES permit limiting the amount of ammonia-nitrogen in Citizens' effluent from Plant No. 2 which discharges into the

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East Branch of the DuPage River. The issue before the Board on remand is the same as that presented to the Board in January of 1989; whether Citizens has met its burden of establishing that no violations of the Environmental Protection Act (Act) and Board regulations would occur if Citizens' NPDES permit were issued without the challenged condition. (Joliet Sand & Gravel v. IEPA (1st Dist. 1985), 163 Ill. App. 3d 830, 516 N.E.2d 955, 958.) The distinction between the instant case and that presented to the Board in 1989 is that, upon the directive of the appellate court, the Board has before it evidence which was not considered in its prior decision. Citizens alleges that this new evidence, coupled with the prior record, supports reversal of the Agency's imposition of an effluent limitation for ammonia-nitrogen of 1.5 mg/l for the months of April through October and 4.0 mg/l for the months of November through March, when downstream daily maximum ammonia-nitrogen concentration in the stream does not meet the water quality standard set forth in 35 Ill. Adm. Code 302.212. The Agency maintains that a consideration of this new evidence and the record prior to remand establishes that Citizens has not shown that compliance with the water quality standard can be achieved without imposition of the ammonia-nitrogen effluent limitation.

#### STATUTORY AND REGULATORY FRAMEWORK

Section 2(b) of the Act sets forth the general purpose of the Act which is to establish a unified, state-wide program to restore, protect and enhance the quality of the environment. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1002(b).) Section 11(b) of the Act provides that it is the purpose of Title III of the Act governing water pollution to "restore, maintain and enhance the purity of the waters of this State ... and to assure that no contaminants are discharged into the waters of the State ... without being given the degree of treatment or control necessary to prevent pollution ... ." (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1011(b).)

The Act also sets forth specific provisions governing the NPDES program. Section 39(b) of the Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1039(b)) provides as follows:

The Agency may issue NPDES permits exclusively under this Subsection for the discharge of contaminants from point sources into navigable waters ... .

All NPDES permits shall contain those terms and conditions, including but not limited to schedules of compliance, which may be required to accomplish the purposes and provisions of this Act.

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The Agency may include, among such conditions, effluent limitations and other requirements established under this Act, Board regulations, the Federal Water Pollution Control Act ... and regulations pursuant thereto ... .

Section 12(a) of the Act prohibits the discharge of any contaminants into the environment that cause or tend to cause water pollution, either alone or in combination with any other sources, or that violate any regulations or standards adopted by the Board. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1012(a).) Similarly, Section 304.105 of the Board's water pollution regulations provides that "no effluent shall, alone or in combination with any other sources, cause a violation of any applicable water quality standard." (35 Ill. Adm. Code 304.105.) The water quality standard for ammonia nitrogen is set forth at 35 Ill. Adm. Code 302.212 and establishes the following:

- a) Ammonia nitrogen (as N: Street number 00610) shall in no case exceed 15 mg/l.
- b) If ammonia nitrogen is less than 15 mg/l and greater than or equal to 1.5 mg/l, then un-ionized ammonia (as N) shall not exceed 0.04 mg/l.

Additionally, in recognition of the fact that ammonia nitrogen is temperature and pH dependent, subsection (e) of 302.212 sets forth the maximum ammonia nitrogen concentrations allowable for certain combinations of pH and temperature. (35 Ill. Adm. Code 302.212(e).)

At the time the Board reached its first decision in this matter on January 5, 1989, the following "winter exemption regulation" was in effect<sup>1</sup>:

- b) Section 304.105 shall not apply to Section 302.212 for

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<sup>1</sup> This "winter exemption regulation" terminated on July 1, 1991. (See, 35 Ill. Adm. Code 304.301, amended in R88-22 at 13 Ill. Reg. 8880, eff. May 26, 1989.) However, the Board will review the Agency's permit decision in light of the regulations in effect at the time the application was filed. This position is consistent with the Board's duty in a permit appeal to review the Agency's permit decision and to assess whether the Agency correctly found that the condition is necessary to achieve compliance with the Act and regulations. On August 22, 1985, the date the Agency issued Citizens' NPDES permit with the contested condition, the 4.0 winter effluent limitation was in effect.

any source during the months of November through March; except that during the months of November through March no source ... shall discharge an effluent containing a concentration of ammonia-nitrogen greater than 4.0 mg/l if the discharge, alone or in combination with other discharges, causes or contributes to a violation of that portion of Section 312.212.

(35 Ill. Adm. Code 304.301(b).)

#### DISCUSSION

Citizens' first contention is that the Agency does not have authority to impose the contested condition because the Board's regulations do not require the disputed condition. According to Citizens, Board affirmance of the disputed condition would constitute an improper delegation of the Board's rulemaking authority to the Agency. The Board notes this argument was raised in the previous proceeding in this case and was addressed by the Board. In its prior opinion, the Board noted that Citizens argued "that the effluent limitation of 1.5 mg/l for April through October is not contained in the Board's regulations. While this statement is true, it is not conclusive proof that the condition is not necessary ... ." (PCB 85-140 at 3 (January 5, 1989).) The Board stated that the condition would be upheld unless Citizens demonstrated that it was unnecessary to ensure compliance with the water quality standards. (*Id.*) Because Citizens has expanded upon this argument in its instant brief (Cit. Brief at 11-12; Reply Brief at 2, 4-7), the Board will take this opportunity to address this contention in more detail.

The Agency relies upon the above-quoted statutory and regulatory language and asserts that the seasonal exemption for ammonia nitrogen water quality standards "explicitly establishes the wintertime ammonia nitrogen effluent standard which is the source of the ammonia nitrogen-related condition contested by Citizens." (Agency Brief at 8 (emphasis added))

At the time the Agency rendered its decision on Citizens' permit application, the Board's regulations provided for an ammonia nitrogen effluent limit of 4.0 mg/l during the months of November through March ("winter exemption") when the discharge, alone or in combination with another source, causes or contributes to a violation of the ammonia-nitrogen water quality standard. (35 Ill. Adm. Code 304.301.) The Board agrees with the Agency that this regulation authorizes the Agency to impose the "winter" effluent limitation as a condition in Citizens' NPDES permit. The imposition of such a condition in a permit where the Board has a formally adopted effluent standard does not constitute an improper delegation of the Board's rulemaking authority to the Agency.

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The Board will now address Citizens' argument of improper delegation as it relates to the "summertime limitation". The Agency admits that the Board's regulations do not set a specific "summertime" effluent limitation for ammonia nitrogen. However, the Agency asserts that Section 304.105, which provides that "no effluent shall, alone or in combination with other sources, cause a violation of any applicable water quality standard", and Section 302.212<sup>2</sup> setting forth the general ammonia nitrogen water quality standard, establish the Agency's authority for imposing an effluent limit which reflects the water quality standard.

Section 39(a) of the Act mandates that the Agency shall issue permits upon proof by the applicant that the facility will not cause a violation of the Act or Board regulations. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1039(a).) The Board has established a temperature and pH dependent water quality standard for ammonia nitrogen. (35 Ill. Adm. Code 312.212.) If the Board were to hold that the absence of an ammonia nitrogen effluent standard precludes the Agency from imposing such a limitation in an NPDES permit, the Agency would not be able to fulfill its duty of issuing permits only upon proof of compliance with the water quality standard. Therefore, the absence of an ammonia nitrogen effluent standard does not, in and of itself, lead the Board to conclude that the Agency has acted beyond its authority.

We now reach the main issue of whether Citizens has met its burden of proving that the contested condition is not necessary to establish compliance with the Act and regulations (*i.e.*, the ammonia nitrogen water quality standard). As it did in the prior proceeding before remand, Citizens again raises the argument that a comparison of the "costs resulting from the condition far outweigh its benefits" and, therefore, imposition of the condition is unreasonable.<sup>3</sup> (Cit. Brief at 8, 13-16, 26-27) Citizens erroneously asserts that the Board may reverse the Agency's imposition of a permit condition upon a finding that the condition is "unreasonable". Citizens relies upon Illinois Environmental Protection Agency v. Pollution Control Board (1st Dist. 1983), 118 Ill. App. 3d 772, 780, 455 N.E.2d 188, which states that the applicant "must prove that the conditions are not necessary to accomplish the purpose of the Act and therefore were imposed unreasonably." The appellate court is merely reiterating that the

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<sup>2</sup> The Agency apparently cites Section 302.202 incorrectly when it intended to cite Section 302.212.

<sup>3</sup> Citizens' "cost-benefit argument" assumes that affirmance of the imposed condition necessitates the construction of a nitrification facility. (Cit. Brief at 226-27; Ex. C; App.D at 2.) As the Board noted in its January opinion, the contested condition does mandate the installation of such a facility. (Board Opinion at 6.)

standard the Board applies in reviewing an Agency permit decision is whether the permit condition is necessary to accomplish the purposes of the Act and regulations. If the Board determines that the condition is not necessary to achieve compliance with the Act and regulations, it may be said that the condition is unreasonable. However, the Board does not conduct a separate inquiry into whether the condition is "unreasonable". Therefore, the Board again rejects any arguments raised by Citizen's regarding "costs and benefits" and "undue hardship" resulting from the condition as being irrelevant in this permit appeal where the sole inquiry is whether the condition is necessary to accomplish the purpose of the Act and regulations.

By its very terms, the condition limiting Citizens' effluent applies only when the downstream daily maximum ammonia nitrogen concentration does not meet the water quality standard of 35 Ill. Adm. Code 302.212.<sup>4</sup> Consequently, exceedence of the effluent limits without a corresponding violation of the water quality standard does not constitute a permit violation. Citizens could exceed the contested effluent limitations and if there was no violation of Section 302.212, no enforcement action could be brought for violating the terms of the NPDES permit.<sup>5</sup> Conversely, if Citizens exceeds the effluent limitations and there is also a downstream water quality violation, an enforcement action could be brought for both violation of the general water quality standard and the permit condition.

Because a Board-adopted effluent standard establishes the 4.0 "winter" limitation, the Board will analyze the 4.0 and 1.5 permit conditions separately. Initially, the Board addresses whether the 4.0 "winter" ammonia-nitrogen effluent limitation is necessary to achieve compliance with the Act and regulations. Citizens contends that the condition is not necessary to establish compliance with the Act and regulations because its effluent, discharged in excess of the imposed limit, will not cause a violation of the water quality standard because all upstream dischargers now nitrify.

The Agency based this condition on an existing regulation in

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<sup>4</sup> The transcripts of R88-22 introduced by the parties here indicate that USEPA no longer accepts NPDES permits with effluent limits subject to the provision that they only apply when the water quality standard is being violated. (Ex. R-3 at 105-07.)

<sup>5</sup> This is inconsistent with the principle of regulating water quality with more certainty and simplifying enforcement by focusing on the effluent attributable to a specific discharger rather than the stream quality itself. (See generally, In the Matter of: Effluent Criteria (January 6, 1972), R70-8 .)

effect at the time it issued Citizens' NPDES permit. (35 Ill. Adm. Code 304.301(b).) Section 304.105(b), in effect at the time the permit application was filed, specifically provided for an effluent limit of 4.0 mg/l during the months of November through March if the discharge, alone or in combination with other discharges, causes or contributes to a violation of the water quality standard in Section 312.212. Citizens' relies on data establishing that all upstream dischargers now nitrify and contends that the 4.0 condition is unnecessary. (Stip. par. 1.) However, the 4.0 effluent limit imposed by the Agency in Citizen's permit imposes no greater obligation than that which exists by virtue of the regulation itself. The permit condition establishing the 4.0 "winter" limitation is worded virtually identically to the regulation establishing this as a temporary effluent standard. Both the permit condition and the effluent regulation require a violation of the water quality standard for the 4.0 effluent limit to become effective. While the Agency was not required to write this limitation into Citizens' permit to have the 4.0 effluent standard apply to Citizens, doing so is certainly consistent with its authority under the Act and Board regulations. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1039(b).) Citizens is, in essence, attempting to have this effluent standard declared invalid as applied to Citizens. The Board will not review a regulation's validity in a permit appeal where the Board's adoption of the regulation could have challenged by judicial review. (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1029.) The Board concludes that the 4.0 "winter" ammonia-nitrogen effluent condition is necessary to accomplish the purposes of the Act and regulations. (35 Ill. Adm. Code 304.301(b).)<sup>6</sup>

We now address whether the 1.5 "summer" effluent limitation is necessary to achieve compliance with the Act and regulations. In the original proceeding, Citizens relied upon a study of the disputed condition prepared by William P. Brink, P.E. ("Brink's Study") in support of its position that the condition is not necessary. (Ex. C; Cit. Brief App. D) Applying a mass balance methodology for ammonia nitrogen, the Brink's Study developed a relationship between upstream, downstream, and effluent ammonia nitrogen concentrations. (Id. at 4.) "The downstream ammonia-nitrogen concentration ... is dependent upon the upstream concentration, the effluent concentration for Plant No. 2 and the dilution ratio of upstream flow to plant effluent flow ( $R=Q_u/Q_e$ )."  
(Id.) The Brink's Study concluded that the downstream ammonia-

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<sup>6</sup> The Board notes that the proper avenue for seeking relief from a Board regulation is through a petition for site-specific relief (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1027; 35 Ill. Adm. Code 102.140), an adjusted standard (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1028.1), or a variance (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1035; 35 Ill. Adm. Code 104.120).

nitrogen concentration will always be less than that allowed by the water quality standard whenever the upstream concentration is 1.0 mg/l or less. (*Id.* at 5.) The Agency responded that the Brink's Study failed to address the possible worst-case scenario of all upstream plants discharging effluent of 4.0 mg/l as allowed by their permits. The Board, in its January 5, 1989 opinion, agreed with the Agency and concluded that Citizens failed to refute this worst-case scenario or establish that the water quality standard could be met without adhering to the condition.

Citizens contends that, due to the appellate court's remand of this matter for the introduction of new evidence and the corresponding passage of time, the evidence submitted upon remand establishes that the Brink's Study is correct and that the downstream ammonia-nitrogen concentration will always be less than 1.5 mg/l, regardless of the season, whenever the upstream concentration is 1.0 mg/l or less. (*Cit. Brief* at 14-15.) As of July 1, 1988, all six wastewater treatment plants upstream of Citizens' Plant No. 2 have completed installation of nitrification facilities. (*Stip. par. 1.*) From January 1, 1987 through June 30, 1990, Plant No. 2's effluent exceeded the contested permit condition and corresponding water quality standard on three occasions. (*Id.* at par. 2; *Exh. R-1.*) Having concluded above that the Agency's imposition of the 4.0 effluent limit is proper, the Board is concerned at this point only with the propriety of the 1.5 "summer" limitation. Hence, the Board will look only to those excursions from the 1.5 limitation and corresponding water quality violations.

On May 12, 1988, when the upstream concentration was 1.1 mg/l and Citizens' un-ionized ammonia nitrogen effluent was 2.9 mg/l, the downstream ammonia nitrogen concentration was 1.7 mg/l and the un-ionized ammonia nitrogen concentration<sup>7</sup> was 0.1239 mg/l rather than the allowable 0.04 mg/l. (*Exh. R-1; Agency Brief* at 12.) On April 18, 1989, Citizens' effluent was 14.7 mg/l, the downstream ammonia nitrogen concentration was 1.55 mg/l and the un-ionized concentration was 0.0610 rather than the allowable 0.04 mg/l. (*Id.*) Citizens notes that one of these excursions occurred prior to July 1, 1988, the date upstream plants began nitrifying, and another occurred when one-half of Plant No. 2 was out of operation for a new aeration system. (*Stip. pars. 1, 2; Ex. R-1.*)

As noted above, the arguments in this case focus more heavily on the 4.0 "winter" exemption than on the 1.5 effluent limit applicable for the remaining months. While there is no specific

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<sup>7</sup> Section 302.212(b) provides that if ammonia nitrogen is less than 15 mg/l and greater than or equal to 1.5 mg/l, un-ionized ammonia shall not exceed 0.04 mg/l. Section 302.212(d) sets forth the method of computing un-ionized ammonia.

explanation of how the Agency arrived at the 1.5 mg/l effluent limit, in its prior brief the Agency stated that because Section 304.301(b) does not apply for the months of April through October, the stricter effluent standard of 1.5 mg/l is imposed. The Agency also relies on Section 304.105 which provides that "no effluent shall, alone or in combination with other sources, cause a violation of any applicable water quality standard." (Agency Brief at 9.) An examination of the water quality standard provides further possible explanation. In Section 312.212(e), the ammonia-nitrogen water quality standard is given as a function of pH and temperature. The data submitted by Citizens (Cit. Brief 11/7/90 App.E) indicates that the pH is above 8.0. Under these pH conditions, the water quality standard is 1.5 mg/l unless the temperature is lower than 15°C (59°F). The months of April through October generally exceed this temperature. Therefore, the appropriate water quality standard is 1.5. Given the testimony that, during periods of low flow<sup>8</sup>, the waterway into which Citizens discharges can consist almost entirely of sewage effluent discharge, it appears that the Agency has imposed the 1.5 mg/l water quality standard as an effluent limit.

It appears that the evidence submitted in the stipulation establishes that Citizens exceedence of the contested permit conditions has caused a corresponding water quality violation. Although the May 12, 1988 violation occurred before all upstream dischargers were nitrifying, Citizens concedes that the April 18, 1989 violation occurred when part of the plant was out of operation. The water quality standards are to be complied with at all times and while one exceedence may not result in an enforcement action, the evidence indicates that the 1.5 effluent limit is necessary for compliance with the Act and regulations. In reaching this conclusion, the Board emphasizes that, by the very terms of the contested condition, the effluent limits only apply when the downstream ammonia-nitrogen concentration does not meet the water quality standard. Therefore, Citizens' argument that, because all upstream dischargers now nitrify, its effluent need not be limited in order to achieve compliance with the water quality standard downstream is somewhat inconsistent with the fact that the effluent limits imposed apply only when there is a downstream water quality violation.

#### ORDER

For the foregoing reasons, the Board concludes that, in light of evidence submitted after remand, the Agency's imposition of a 4.0 mg/l "winter" ammonia-nitrogen effluent limit and 1.5 mg/l effluent limit for the remaining months when the water quality

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<sup>8</sup> The Illinois State Water Survey estimates that 25-30% of the occurrences of low flow can be expected to occur during January and February. (Tr. 12/4/87 at 80-81.)

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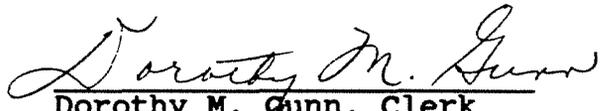
standard downstream is exceeded is necessary to achieve compliance with the Act and regulations.

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

IT IS SO ORDERED.

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. (But see also, 35 Ill. Adm. Code 101.246, Motions for Reconsideration, and Casteneda v. Illinois Human Rights Commission (1989), 132 Ill. 2d 304, 547 N.E.2d 437.)

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the 16<sup>th</sup> day of October, 1992 by a vote of 7-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board