ILLINOIS POLLUTION CONTROL BOARD February 4, 1988

HOWARD P. SPURGEON d/b/a HIGHVIEW ESTATES SUBDIVISION,)
Petitioner,)
v.) PCB 87-111
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,)))
Respondent.)

FREDERICK D. BERRY, P.E., OF AUSTIN ENGINEERING CO., INC., AND HOWARD S. SPURGEON APPEARED ON BEHALF OF THE PETITIONER.

KATHLEEN BASSI APPEARED ON BEHALF OF THE RESPONDENT.

OPINION AND ORDER OF THE BOARD (by J. Marlin):

This matter comes before the Board on a Petition which was originally filed by the Petitioner on July 31, 1987. In response to two Orders by the Board, the Petitioner subsequently filed an Amended Petition on September 16, 1987 and a second Amended Petition on October 13, 1987. The Petitioner is seeking variance from 35 Ill. Adm. Code 304.120(c), Deoxygenating Wastes, for a period of two years after the completion of a new sewage treatment plant which will replace the existing sewage treatment plant that is currently owned and operated by the Petitioner. During the requested variance period, the Petitioner has proposed to be subject to standards of 20 mg/l for BODs and 25 mg/l for suspended solids. On December 3, the Board granted the Illinois Environmental Protection Agency's (Agency) motion to file the Agency's Recommendation Instanter. Since the Petitioner waived his right to a hearing and no person filed an objection to the variance request, no hearing was held in this matter.

The Petitioner owns and operates a sewage treatment plant which serves the Highview Estates Subdivision located in Tazwell County. The plant treats the sewage from 180 single family residences. The average daily flow to the sewage plant is approximately 63,000 gallons per day. (Am. Pet. p. 1-2). The Agency asserts that the design average flow (DAF) for the existing plant is 0.045 mgd. The existing plant consists of a Smith and Loveless package extended aeration plant followed by a 1.2 acre lagoon. According to the Agency, chlorination facilities are present but have not worked for several years. The effluent from the existing facility is discharged to Fon du Lac Creek, which is a tributary to Farm Creek which in turn is a tributary to the Illinois River. (Ag. Rec. p. 1). Petitioner claims that the existing plant is hydraulically and organically

undersized and cannot meet the requirements of Section 304.120(c). Consequently, the Petitioner is pursuing the option of building a new treatment facility. (Am. Pet. p. 3). Section 304.120(c) imposes a 10/12 BOD₅/SS standard upon the Petitioner's existing facility. Also, after the Petitioner builds his new plant, he will still be subject to the 10/12 standard. According to the Petitioner, land in the area is not available for him to construct a third stage treatment lagoon which would qualify him for a lagoon exemption under Section 304.120. (Am. Pet., p. 6). Such an exemption would impose standards of 30/37 for BOD₅ and suspended solids, respectively. The Agency agrees with the Petitioner that a new treatment plant should be constructed in order to meet the 10/12 standard. (Ag. Rec., p. 3). However, the Agency disagrees, to a certain extent, with the Petitioner with regard to what the new facility should include.

The Petitioner wishes to construct a larger 24-hour extended aeration activated sludge treatment plant without sand filters. (Am. Pet. p. 3). After construction of the new plant, the lagoon would be used merely as a place to store excess flow to the treatment plant. The Agency states that its experience has indicated that extended aeration plants will not consistently meet the 10/12 standard when no sand filters are utilized. (Am. Rec., p. 3). The Petitioner disagrees and states that he should be given the opportunity to demonstrate that the new treatment plant would provide effluent of the quality which would meet the 10/12 standard even without sand filters. The Petitioner plans to utilize the existing treatment plant until the new treatment plant was constructed. Then, for a period of approximately one year, the effluent from the new treatment plant would be monitored and tested so as to determine whether the new treatment plant was in compliance with the 10/12 standard. The Petitioner estimates that sand filters would increase the cost of the new plant by \$75,000 to \$100,000. (Ag. Rec., p. 3-5). Although the Agency does believe that sand filters are necessary, it claims that in this specific case "it is prudent to provide a period of operation [of the new treatment plant] without filters to assess plant performance in terms of compliance with final limits. Therefore, to require filters immediately imposes an unreasonable and arbitrary hardship." (Ag. Rec. p. 4).

The permit under which the Petitioner is operating requires that the effluent of the treatment plant meet the 10/12 standard. According to the Agency, the Petitioner's facility currently does not meet these requirements. The current permit was issued on March 19, 1986 and expires on April 1, 1991. The Agency believes that the Petitioner's proposed compliance schedule is reasonable and that the Petitioner should begin construction on the new plant this spring. (Ag. Rec., p. 3).

With regard to environmental quality, the Agency states that the new treatment plant, even when discharging directly to the receiving stream, will greatly improve the Petitioner's effluent. The Agency states that it may be possible for the Petitioner to produce an effluent which would be in compliance with the 10/12 standard. The Petitioner agrees with the Agency that a noticeable improvement in the quality of the effluent is anticipated upon completion of the new treatment plant. (Ag. Rec., p. 3). Also the Petitioner emphasizes that the existing treatment plant will remain in full operation until the completion of the new treatment plant. (Am. Pet. p. 5).

In the second Amended Petition, the Petitioner sets forth effluent data taken from September 1986 to 1987. The Petitioner presents three sets of data: one tested by the Petitioner himself; another by Daily & Associates, which is a testing laboratory; and the third is data taken by the Agency. Agency states that its data should be the only set relied upon by the Board since, unlike the other two sets of data, the Agency's data is generated from the testing of effluent out of the lagoon as it empties into the Fon du Lac Creek. The data gathered by Spurgeon and Daily & Associates apparently was taken out of the effluent from the existing treatment plant but prior to its entering the lagoon. The Agency claims that the lagoon actually degrades the water that it receives before it is in turn discharged to Fon du Lac Creek. The Agency also states that prior to August 1986, the Petitioner did not use approved laboratory analytical procedures in testing the effluent. (Aq. Rec. p. 2). The Agency's data as set forth in the Second Amended Petition clearly indicates that the existing treatment plant has been operating in great excess of the 10/12 standard. Petitioner estimates that the overall cost of a new treatment plant would be approximately \$300,000. Consequently, the additional cost of sand filters would increase the total construction cost by as much as 33 percent. Since the Agency believes that it may be possible for the Petitioner to achieve compliance with the 10/12 standard without using the sand filters, the Board believes that it would be reasonable to allow the Petitioner to operate its new treatment plant on a trial basis without the sand filters. Given all these circumstances, the Board finds that the denial of a variance, in this instance, would cause an arbitrary or unreasonable hardship upon the Petitioner.

After reviewing the conditions recommended by the Agency, the Board will grant the variance subject to conditions which are substantively the same as found in the Agency's recommendation. Essentially, the schedule of compliance set forth in the Order reflects the time frames for compliance which the Petitioner proposed in the Amended Petition.

Since the Petitioner's current permit contains effluent limits of 10/12 for BOD_5 and SS, the Board will provide relief from Section 304.141(a), as recommended by the Agency. Section 304.141(a) states that no person shall discharge an effluent which has concentrations in excess of the standards and limits

set forth in the person's NPDES permit. The Petitioner will be subject to effluent limits as set forth in the conditions of this variance.

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

ORDER

The Board hereby grants Howard P. Spurgeon d/b/a Highview Estates Subdivision (the Petitioner) variance from 35 Ill. Adm. Code 304.120(c) and 304.141(a) subject to the following conditions:

- This variance shall expire on August 1, 1990 or when the Petitioner achieves compliance with Section 304.120(c), whichever occurs first.
- 2) The Petitioner shall comply with the following schedule:

a) <u>ITEM</u> <u>COMPLETION DATE</u>

Submit permit application to the Agency for the construction of a 24-hour extended aeration activated sludge treatment plant without sand filters (Phase I) as described in the Amended Petition for Variance.

February 21, 1988

- b) Initiate construction of Phase I.
- May 1, 1988.
- c) Complete construction of Phase I.
- November 1, 1988.
- d) Sample and test effluent of Phase I for five day biochemical oxygen demand and suspended solids.
- November 1, 1988 to November 1, 1989
- e) Submit permit application for construction of sand filters (Phase II) if needed.
- January 1, 1990
- f) Initiate construction of Phase II facilities, if needed.

April 1, 1990

g) Complete construction of Phase II facilities, if needed, and meet final effluent limits of 10 mg/l BOD₅ and 12 mg/l TSS.

August 1, 1990.

- 3) All treatment facilities shall be built in accordance with plans and specifications as approved by the Agency. Any deviations from the approved plans and specifications must be approved in writing by the Agency.
- 4) During the term of the variance, Petitioner's discharge from the Highview Estates Subdivision shall meet the following effluent limits:

PARAMETER	MONTHLY AVERAGE	DAILY MAXIMUM
$BOD_5 (mg/1)$	20	40
\mathtt{BOD}_5 (mg/1) SS (mg/1)	25	50

Petitioner shall meet all other effluent limits contained in its NPDES permit.

- 5) Petitioner shall sample, analyze, and report all parameters contained in its NPDES permit based upon weekly sampling. Samples shall be representative of the effluent being discharged to the receiving stream, irrespective of which treatment units are being used.
- 6) Sample types used shall be those stated in the Petitioner's NPDES permit.
- 7) Petitioner shall at all times produce the best effluent possible and shall complete construction of the various units as quickly as possible.
- 8) Petitioner shall submit a certificate of acceptance to the Agency within 45 days of the date of this variance to:

Illinois Environmental Protection Agency Division of Water Pollution Control/Compliance Assurance Section

2200 Churchill Road, P.O. Box 19276 Springfield, IL 62794-9276

Attention: James Frost

The form of this certificate of acceptance shall be as follows:

CERTIFICATION

(Petitioner), hereby accepts and agrees to be bound by all terms and conditions of the Order of the Pollution Control Board in PCB 87-111, dated February 4, 1988.	hе
Petitioner	
Authorized Agent	
Title	
Date	

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1985 ch. 111 $\frac{1}{2}$ 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.

IT IS SO ORDERED.

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

Dorothy M. Gunn, Clerk

Illinois Pollution Control Board