

ILLINOIS POLLUTION CONTROL BOARD
February 25, 1988

IBP, INC.,)
)
 Petitioner,)
)
 v.) PCB 86-174
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

RICHARD J. KISSEL (MARTIN, CRAIG, CHESTER AND SONNENSCHNEIN)
APPEARED ON BEHALF OF PETITIONER; AND

E. WILLIAM HUTTON AND KATHLEEN C. BASSI (ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY) APPEARED ON BEHALF RESPONDENT.

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

This matter comes before the Board upon an October 10, 1986
Petition for Variance filed by IBP, Inc. ("IBP"). IBP requests
variance from the requirements of 35 Ill. Adm. Code 304.120(b)
(total suspended solids "TSS" in discharged effluent) to enable
it to continue to operate a beef slaughter and processing
facility in Joslin, Illinois. IBP also requests variance from
its NPDES Permit No. IL0003913 relating to TSS pursuant to 35
Ill. Adm. Code 309.184. IBP asks that variance be granted for a
term of one year while it conducts a plan of study to determine
how to comply with the above-stated requirements. Specifically,
IBP seeks to raise the standards for monthly averages and daily
maximums for TSS concentrations from 25 mg/l to 54 mg/l and from
50 mg/l to 108 mg/l, respectively.

IBP's original petition included a statement waiving its
right to a hearing on the petition. On December 1, 1986 the
Illinois Environmental Protection Agency (Agency) filed a motion
for leave to file Agency Recommendation instanter and Agency
Recommendation. That motion was granted by Board Order of
December 5, 1986. The Agency recommended denial of variance for
failure to set forth a full and detailed compliance plan. On
December 3, 1986, IBP filed an amended petition for variance,
requesting a hearing on the petition. Subsequent negotiations
between IBP and the Agency, however, obviated the necessity for
hearing (see Board Order, October 15, 1987). On August 27, 1987,
the Agency filed an Amended Recommendation, recommending that the
variance be granted subject to certain specified conditions.

On February 1, 1988 IBP filed a motion for expedited decision. After noting that an agreement had been reached between the Agency and IBP "concerning the granting of (the recommended) variance and the conditions to be attached to that grant," IBP stated that it has been expending its efforts in attempting to comply with the compliance schedule set forth in the (recommended) variance. IBP states that it "believes that the requisite facts are that the variance should be granted under the conditions as set forth in the Agency Recommendation." IPB's motion for expedited decision is hereby granted.

IBP owns and operates a beef slaughter and processing plant located near Joslin, Illinois in Rock Island County. IBP estimates kill rates at 2500 head per day and processing at 3200 head per day. The extra 700 head per day comes from IBP's other facilities.

As part of its plant, IBP owns and operates wastewater treatment facilities. These consist of a manure pit, a dissolved air flotation unit, a raw sewage lift station, two anaerobic lagoon cells, a bar screen, an activated sludge system, an intra-channel clarifier and chlorination. A second treatment scheme utilizing lagoons is also available. Discharge from IBP's facilities is to the Rock River, a tributary of the Mississippi River and a water of the State.

On May 9, 1983, IBP submitted to the Agency a construction permit application for the present activated sludge system. That application was initially denied for several reasons, including the Agency's concern that the use of an intra-channel clarifier would not allow the facility to meet effluent limitations. Following resubmittal, the construction permit was issued on September 19, 1983. Following construction of the new facility, many problems of a design nature occurred. The most significant is the failure of the intra-channel clarifier. It appears that because of the design of this unit, IBP cannot control the amount of sludge solids returned to the activated sludge process. As a result, mixed liquor solids have generally been in the 1,000 to 1,500 mg/l range, which is considered low. Without operational control over sludge return, IBP cannot attain steady state operation of the activated sludge units. Also, IBP has had difficulties with the structures which hold the mixers in the activated sludge unit. However, it appears that these structures have finally been repaired satisfactorily.

On April 3, 1987, IBP submitted an application for construction of a blue chrome tannery at its Joslin facility. Wastes generated by operation of the tannery would be discharged to the WWTP. IBP estimates the following increases in loadings:

Anaerobic Lagoon Influent Loadings

| Wastewater Characteristics | Original Design Loadings lbs/day/mg/l | | Existing Loadings lbs/day/mg/l | | Proposed Loadings lbs/day/mg/l | |
|----------------------------|--|-------|-----------------------------------|-------|-----------------------------------|-------|
| Flow, mgd | 1.8 mgd | | 1.47 mgd | | 1.73 mgd | |
| Biochemical Oxygen Demand | 19,000 | 1,900 | 16,900 | 1,380 | 26,600 | 1,840 |
| Total Suspended Solids | 24,000 | 1,600 | 11,500 | 940 | 23,400 | 1,620 |
| Oil & Grease | 9,200 | 620 | 5,040 | 410 | 9,500 | 660 |
| Chlorides | 12,000 | 810 | 16,800 | 1,370 | 12,400 | 860 |
| Sulfates | | | 490 | 40 | 3,030 | 210 |
| Sulfides | | | 0 | 0 | 1,200 | 83 |
| Chromium | | | 0.25* | 0.02* | 6.25 | .043 |

Activated Sludge Plant Influent Loadings

| Wastewater Characteristics | Original Design Loadings lbs/day/mg/l | | Existing Loadings lbs/day/mg/l | | Proposed Loadings lbs/day/mg/l | |
|----------------------------|--|-----|-----------------------------------|-------|-----------------------------------|------|
| Flow, mgd | 1.8 mgd | | 1.26 mgd | | 1.48 mgd | |
| Biochemical Oxygen Demand | 3,000 | 200 | 12,000 | 114 | 2,940 | 240 |
| Total Suspended Solids | 3,000 | 200 | 1,590 | 151 | 2,470 | 220 |
| Ammonia Nitrogen | 2,700 | 180 | 1,570 | 149 | 3,250 | 260 |
| Chlorides | 12,000 | 810 | 14,360 | 1,370 | 10,600 | 860 |
| Sulfates | | | 420 | 40 | 4,500 | 360 |
| Sulfides | | | 160 | 15 | | 990 |
| Chromium | | | 0.25* | 0.02* | 4.1 | 0.33 |

The permit application was denied by the Agency on May 12, 1987. Subsequently, IBP presented additional technical evidence, and an Agency permit authorizing construction of the tannery was issued on July 1, 1987. It is anticipated that the tannery will become operational on or about June 1, 1988.

Alternative Compliance Measures

IBP is not seeking a plan of study variance, but is committed to achieving compliance by the end of the variance period by employing conventional treatment methods. The Agency and IBP have, through negotiations, agreed that IBP will examine the following conventional treatment methods: (1) clarification,

* Assumed Values

(2) filtration, and (3) a combination of clarification and filtration. The Agency notes that IBP will need time to evaluate the effectiveness and the cost of those conventional treatment methods. The Agency anticipates that the employment of conventional treatment methods will allow IBP's effluent to achieve compliance; however, if that is not the case, IBP may seek further relief from the Board.

Hardship

The Agency stated in its Recommendation that denial of a variance would create hardship to IBP due to its potential exposure to enforcement. The Agency noted also that a concomitant area of hardship would involve the financial and technical difficulties inherent in achieving immediate compliance. The Agency stated that, while the hardship cannot be precisely quantified, IBP has established hardship "sufficient to allow the granting of a variance." The Board accepts the Agency's determination and agrees that IBP has established hardship.

Environmental Impact

IBP alleges that the environmental impact of granting of this variance would be minimal. This assertion is based upon a review of total suspended solids levels in the Rock River downstream of the discharge, and a calculation as to the impact of IBP's discharge. The Agency generally concurred with IBP's assertion because of the relatively small size of the discharge in relation to flows in the receiving stream. The Agency stated that the discharge would not have a significant impact on total suspended solids levels in the river. Further, the Agency stated that the hardship to IBP outweighs any adverse environmental impact.

Federal Law

Both IBP and the Agency reviewed plant data in order to determine the discharge limit for TSS allowable pursuant to 40 CFR 432. The Agency stated also that the additional TSS loading from the tannery will affect the allowable federal limit. The consensus of the parties was that the allowable limits are as follows:

| | TSS Concentration (mg/l) | |
|---------------------------------|--------------------------|----------------------|
| | <u>30-day average</u> | <u>daily maximum</u> |
| Prior to start-up of tannery | 60 | 119.9 |
| Following start-up | 66.8 | 136.1 |

The Agency recommended that the discharge be limited to these levels during the period of the variance.

The Board notes that because IBP and the Agency are in agreement as to the facts and recommended remedy, there are no contested issues. Therefore, the Board finds that the evidence supports the granting of the recommended variance to IBP. Absent the variance, IBP would suffer arbitrary and unreasonable hardships.

In summary, the variance is granted until December 31, 1988 subject to the conditions specified in the Agency Recommendation and agreed to by IBP. The Board notes that the Agency Recommendation recommends variance only from 35 Ill. Adm. Code 304.120(a). IBP's petition requested variance from 35 Ill. Adm. Code 304.120(b) and NPDES Permit No. IL0003913. The Board assumes that Section 304.120(b) is the proper subsection because the record indicates that IBP's untreated waste load exceeds 10,000 population equivalents. The Board grants the variance from the NPDES Permit as well.

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

ORDER

The Petitioner, IBP, Inc., is hereby granted variance from 35 Ill. Adm. Code 304.120(b) (as it pertains to total suspended solids) and from the conditions of NPDES Permit No. IL0003913 relating to total suspended solids until December 31, 1988, subject to the following conditions:

- A. Discharge of TSS shall not exceed the following levels:

| | TSS Concentration (mg/l) | |
|---------------------------------|--------------------------|----------------------|
| | <u>30-day average</u> | <u>daily maximum</u> |
| Prior to start-up of tannery | 60 | 119.9 |
| Following start-up | 66.8 | 136.1 |

- B. Petitioner shall up-grade its Waste Water Treatment Plant in accordance with the following schedule:

| <u>Item</u> | <u>Completion Date</u> |
|--|------------------------|
| Submit permit application, plans and operations to IEPA/DWPC/Permits | 5/1/88 |
| Obtain permit | 8/1/88 |

Commence construction 8/15/88

Complete construction 12/31/88

C. Petitioner shall make all reasonable efforts to complete up-grading in accordance with the schedule set forth in paragraph b, above. However, if Petitioner is unable to complete up-grading due to factors beyond its control (such as inclement weather or delays in obtaining manufactured equipment), it may seek to obtain an extension of the completion schedule by filing for an extension of this variance.

10. Within forty five (45) days of the Board's Order, the Petitioner shall execute a certificate of acceptance and agreement, which shall be sent to Mr. James Frost of the Agency at the following address:

Mr. James Frost
Illinois Environmental Protection Agency
Division of Water Pollution Control
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276

This variance shall be void if Petitioner fails to execute and forward the certificate within the forty-five day period. The forty-five day period shall be held in abeyance during any period that this matter is being appealed. The form of said Certification shall be as follows:

CERTIFICATION

I, (We), IBP, Inc., having read the Order of the Illinois Pollution Control Board, in PCB 86-174, dated February 25, 1988, understand and accept the said Order, realizing that such acceptance renders all terms and conditions thereto binding and enforceable.

Petitioner

By: Authorized Agent

Title

Date

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1985 ch. 111 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 25th day of February, 1988 by a vote of 7-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board