

ILLINOIS POLLUTION CONTROL BOARD
May 8, 1975

CITIZENS FOR A BETTER ENVIRONMENT,)
)
Complainant,)
)
vs.) PCB 74-201
)
STEPAN CHEMICAL COMPANY,)
)
Respondent.)

STEPAN CHEMICAL COMPANY,)
)
Petitioner,)
)
vs.) PCB 74-270
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

STEPAN CHEMICAL COMPANY,)
)
Petitioner,)
)
vs.) PCB 74-317
)
ENVIRONMENTAL PROTECTION AGENCY,)
)
Respondent.)

JAMES GLADDEN and HARLEY HUTCHINS, Attorneys for Stepan Chemical
JOHN L. BERNBOM, Attorney for EPA
CBE appeared by one of its officers, Dennis Adamczyk

OPINION AND ORDER OF THE BOARD ON MOTION OF STEPAN CHEMICAL
COMPANY SUBSEQUENT TO FINAL ORDER (by Mr. Henss):

Stepan Chemical Company has requested rehearing and modification of certain portions of the Opinion and Order adopted by the Board on February 14, 1975. Specifically, Stepan objects to the fact that the Board questioned Stepan's good faith when Stepan failed to divert its effluent to the Des Plaines River. Stepan also objects to the requirement that Stepan not increase its BOD and suspended solid discharge to Cedar Creek over levels achieved in July 1975. Stepan claims that it cannot reasonably be expected to comply with that discharge level.

Records have been reviewed regarding Stepan's contention that it never committed to the installation of a pipeline to divert waste waters to the Des Plaines River. Stepan clearly agreed to divert its waste water discharges to the River but it is technically correct that nothing in the Stipulation and Proposal for Settlement specified the use of a pipeline.

Several documents and statements using the words "pipe" or "pipeline" were strong indications that this was the method Stepan planned to use. In its original Petition for Variance (later dismissed) Stepan stated: "Alternatively, Stepan could install a pipe to discharge directly to the Des Plaines River from its treatment plant" (Item 10). At the hearing on July 19, 1973 in PCB 72-489 and PCB 73-184 (consolidated) Attorney Gladden for Stepan said: "One of the things that is facing us here is the fact that it would be possible to lay pipe from the present facility to the Des Plaines River" (R. 89). At the December 14, 1973 hearing in the consolidated cases, Attorney Handzell for the Agency made the following statements:

"The settlement further provides that Stepan Chemical Company will install a drainage ditch which will divert the effluent". (R. 69)

"...what it is intended to show is that the installation of the pipe to the Des Plaines River..." (R. 80)

"...so that the Board may know why the Agency required Stepan Chemical Company to go to the expense of building a pipe to the Des Plaines River..." (R. 81)

Stepan's Attorney did not make any comment during that hearing about Handzell's use of the word "pipe".

The Board, in its prior Opinion (PCB 72-489) used the phrase "install the pipe", although the Agreement did not specify that a pipeline would be the method used. Stepan now says that it should have corrected the "apparent misunderstanding" at that time but, since the terms of the Agreement had been accepted and those terms did not specify use of a pipeline the Company chose to let things stand as they were.

In the current proceeding this "misunderstanding" was carried forward to some extent by Stepan in its Exhibit No. 7. That Exhibit plainly states "our present plans for diversion require installation of a pipeline under two railroad tracks". Exhibit No. 8 makes reference to both pipeline and open ditch.

From all of these things the Board believed that Stepan would divert its effluent to the Des Plaines River by pipeline. This belief was apparently shared by others and Stepan did nothing to alter the impression which had been left with the Board. We believe it is fair to say that Stepan had made a specific commitment to divert its waste water directly to the Des Plaines River and that the Company intended to use pipeline for at least part of the diversion, i.e. under the railroad tracks. Our finding that Stepan had committed to a continuous pipeline from the waste treatment plant to the Des Plaines River was apparently based upon a long series of mis-statements and misunderstandings.

The good faith question still remains since Stepan failed to take those steps necessary to lay the pipe past the major obstacle, the railroad tracks. Stepan had committed to a diversion deadline while apparently knowing that pipeline would be used to carry the effluent under the tracks and that nine months to a year would be required to obtain railroad permission.

We made no specific finding in our prior Opinion with regard to the good faith of Stepan Chemical but indicated that Stepan's good faith was subject to some question and doubt. We now find that some of the doubts were based upon misunderstanding and therefore, to that extent, correct the Opinion although it does not affect the final decision.

We turn now to the question of what effluent level Stepan should be required to meet during the term of its variance. Stepan challenges Paragraph 1(b) of our Order which states:

"During the term of this variance Stepan shall not increase its BOD and SS discharge to Cedar Creek over levels achieved in July 1974".

Stepan's improvement program as described in the Stipulation and Proposal for Settlement apparently improved the operation of the waste treatment plant for a period of time with regard to influent BOD concentrations. BOD in the influent has dropped 21% since December 1973. However, BOD in the treatment plant effluent had gone up 44% during this same period and the treatment plant BOD removal efficiency has dropped 4%. Since November 1972 the treatment plant has met the design influent BOD concentration of 1300 mg/l only 62% of the time.

Stepan contends that its summer waste treatment operations are inherently more efficient than its winter operations and for that reason does not want to be limited to July effluent quality levels. Data for April to September show a BOD removal

efficiency of 95%. Data for October to March show a BOD removal efficiency of 85%. This is a significant drop in efficiency and probably indicates that there is a need for insulation on treatment plant vessels and lines. A photograph of the treatment plant shows that equipment is above ground and exposed to the ambient air.

We believe that one of the major problems exists in failure of the Company to assign a full-time operator to the treatment plant. The record shows that the treatment plant operator is on duty only on the day shifts Monday through Friday. Boilerhouse personnel attend the plant at other times. To see what can happen when a treatment plant of this type is operated in a nonchalant fashion one only needs to read Appendix F to the Motion. In November 1974 the operator took control samples on the 15th, a Friday. No samples were taken on the 16th or 17th. When the boilerhouse operator checked the waste treatment plant on the 17th he discovered that an air blower to the aeration tank was not operating. The motor was cold which indicated that it had been off for some time. Although Stepan called in its operator and maintenance to get the blower started, the damage had been done. All the protozoan bacteria were dead. Aeration is critical to the effective operation of an activated sludge treatment system. Without aeration the bacteria die and it is very difficult to get a new population of bacteria established. Stepan's February 17, 1975 report (Appendix H) shows that there are still no protozoan bacteria in the system, and BOD in the effluent shot up to an average of 333 mg/l for the month of January 1975.

We believe that Stepan's effluent could be improved with better housekeeping and maintenance practices but will not insist at this point that Stepan meet its July 1974 effluent quality. Previously Stepan had agreed to consistently meet an effluent quality of 30 mg/l BOD and 37 mg/l suspended solids. We will reinstate that requirement during the term of this variance.

In addition, we will grant Stepan a variance from Rule 404 (b) once diversion is completed to the Des Plaines River and until December 30, 1975, on condition that BOD and suspended solids not exceed 30 mg/l and 37 mg/l respectively. Rule 404(b) would limit the discharge to the Des Plaines River to 20 mg/l BOD or 25 mg/l suspended solids and it is clear that Stepan cannot meet that limitation prior to start-up of its new waste treatment improvements.

This Opinion constitutes the findings of fact and conclusions of law of the Illinois Pollution Control Board.

ORDER

It is the Order of the Pollution Control Board that the February 14, 1975 Order of the Board be modified as follows:

1. Paragraph 1(b) shall be amended to read:

During the term of this variance Stepan shall not increase its BOD and SS discharge to Cedar Creek over 30 mg/l and 37 mg/l respectively.

2. Order No. 5 shall be added to read:

Stepan Chemical Company is granted variance from Rule 404(b) of the Water Pollution Control Regulations for its Millsdale plant commencing when diversion is completed to the Des Plaines River and extending until December 31, 1975. This variance is allowed on the conditions that:

a) During the term of the variance Stepan shall not increase its BOD and SS discharge to Des Plaines River over 30 mg/l and 37 mg/l respectively.

b) Stepan submit to the Agency within 30 days of this Order its program for control sampling every day the plant is operating and for complete equipment checks at frequent intervals during the day.

3. The request that variance be extended from Rule 404(f) to December 31, 1975 for the discharge of effluent to Cedar Creek is denied.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 8th day of May, 1975 by a vote of 4-0.


Christan L. Moffett, Clerk
Illinois Pollution Control Board