

ILLINOIS POLLUTION CONTROL BOARD
December 20, 1985

ARCHER DANIELS MIDLAND CO.,)
)
Petitioner,)
)
v.) PCB 85-204
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

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

This provisional variance request comes before the Board upon a December 18, 1985 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a 45-day provisional variance be granted to Archer Daniels Midland Company (Company) from 35 Ill. Adm. Code 304.120(c). The Agency also construes the Company's request for relief from Special Condition #2 of Agency permit 1983-SA-1521 as relief from 35 Ill. Adm. Code 309.102(a) in that the Petitioner does not presently have an NPDES Permit for the needed discharge. The Agency also recommends that the Board grant the Petitioner a provisional variance from 35 Ill. Adm. Code 309.102(a) and indicates that such relief is similar to that granted by the Board in PCB 84-15 to Continental Grain Company (i.e., the previous owner of the facility in question). (Rec. 1).

The Petitioner owns and operates a soybean processing plant on an 80-acre site in Taylorville, Illinois. The Company's wastewater treatment facilities include both aerobic and anaerobic lagoons (i.e., two 1-acre lagoons operated in series). Effluent which is discharged from the Petitioner's lagoon system subsequently flows into a final spray irrigation system which includes 24 spray nozzles located on a 32-acre irrigation field for land applying lagoon-treated flows. (Rec. 1). Most of the irrigation field is surrounded by a dike which is between two and three feet high.

The discharge of any flows from the seepage field is currently prohibited by Agency construction and operating permit 1983-SA-1521. Flows which exceed the 200 gallon per minute pumping capacity of the Petitioner's spray irrigation pump are diverted during wet weather onto the irrigation fields by three stormwater discharge pipes which are located along the southern edge of the Company's irrigation field. The field tile underlying the seepage field collects seepage into the soil and this seepage can later be recycled back to the irrigation field or to the cooling tower to be utilized as makeup water. The aforementioned system is used to treat all storm water, non-contact cooling water, and process water from the Petitioner's site. (Rec. 1).

The Company's irrigation field is presently under approximately 2 1/2 feet of water in spots as a result of recent very heavy rainfall. There would be about 26 million gallons on the irrigation field if the entire field were covered at this depth. However, the Company estimates that there is currently approximately 16 million gallons of water on the irrigation field, since the entire field is not covered at this depth. (Rec. 1). Because of the previously mentioned heavy rainfall, the Petitioner's lagoons are presently filled to capacity and two discharges have occurred since November 21, 1985. The Company is very concerned about possible damage to the dikes surrounding the irrigation field and about possible uncontrolled discharge of flows from the field by failure of the dikes, especially in light of the large accumulation of 16 million gallons of water. (Rec. 1).

At the present time, the Petitioner is in the process of receiving an NPDES Permit from the Agency to allow the discharge of non-contact cooling water and other miscellaneous flows into the receiving stream (i.e., the permit is currently in the "public notice" period). The total flows involved are expected to be about 47,000 gallons per day. The Company is also in the process of evaluating whether it is feasible for it to connect to the Taylorville Sanitary District for treatment of its process wastes. The Agency has noted that, when the Petitioner's NPDES Permit is issued, if process flows are removed from the existing facilities, then about 97,000 gallons per day would be removed from the system and it would then be only surface runoff from the treatment process. (Rec. 2).

The Petitioner's discharge monitoring reports to the Agency pertaining to the quality of the flows discharged to its irrigation fields have indicated the following parameters:

Sample Date	BOD (mg/l)	TSS (mg/l)	pH (SU)	Chlorine Res. (mg/l)	Ammon. N (mg/l)	F. Coliform (#/100 ml)
8/22/85	32.3	54	6.42	0	1.2	341
6/28/85	76.1	75	6.99	0	0.84	TNTC*
5/30/85	62.1	60	6.93	0	0.23	229
4/30/85	17.2	60	6.95	0	3.10	32
3/20/85	18.1	6	6.85	0	1.80	2000
12/04/84	20	24	6.9	0	0.53	658
11/26/84	14.6	35	6.8	0	0.76	0

*TNTC = too numerous to count

(Rec. 2).

The Agency has stated that it assumes that the water is of sufficient quality to be acceptable, due to the treatment provided by the irrigation field and indications from samples of the ponded water taken in 1984 to support Continental Grain Company's variance petition in PCB 84-15. (Rec. 2). However, the Agency is still concerned that the Company has not fully

developed potential alternative compliance methods, especially pertaining to the recycling process to the cooling tower. Accordingly, the Agency has recommended, as a condition to the variance being granted, that the Petitioner be required to recycle as much flow as possible to the cooling tower. This recommended condition appears to be appropriate, and will be included in the Board's Order.

The Agency believes that the environmental impact of the proposed provisional variance will be minimal. This Agency determination is based upon the apparent minimal environmental impact of the previous discharge in 1984 and the Agency's conclusion that "there is no reason to believe this discharge will be sufficiently different to cause any adverse environmental impact". (Rec. 2). Because the closest downstream surface water is over 200 miles downstream (i.e., the Alton Water Company on the Mississippi River), the Agency anticipates no adverse environmental impact on this water supply. (Rec. 2).

The Agency has concluded that compliance with the provisions of 35 Ill. Adm. Code 304.120(c) and 309.102(a) would impose an arbitrary or unreasonable hardship upon the Archer Daniels Midland Company. The Agency believes that the imminent danger of the failure of the Petitioner's irrigation field dikes could cause significantly more problems than a controlled release of the water. (Rec. 2). Moreover, the Agency has ascertained that there are no federal regulations that would preclude the granting of the requested relief. Accordingly, the Agency has recommended that the Board grant the Petitioner a provisional variance from 35 Ill. Adm. Code 304.120(c) and 309.120(a), subject to specified conditions.

Pursuant to Section 35(b) of the Illinois Environmental Protection Act, the Board hereby grants the provisional variance as recommended.

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

ORDER

Archer Daniels Midland Company is hereby granted a provisional variance from 35 Ill. Adm. Code 304.120(c) and 35 Ill. Adm. Code 309.102(a) as it pertains to its wastewater treatment facilities at its soybean processing plant in Taylorville, Illinois, subject to the following conditions:

1. This provisional variance shall commence on December 20, 1985 and shall terminate on February 3, 1986.

2. By January 15, 1986, the Petitioner shall submit a schedule outlining when steps will be taken to determine if process waters will be directed to the Taylorville Sanitary District. This schedule shall include the steps that would be necessary should the decision be to divert flows to the District.

3. The Petitioner shall return as much of ponded water as possible through the spray recycle and cooling water systems so as to minimize the amount of water which is discharged.

4. The Petitioner shall keep records of the running time and the capacity of the pumps in order to estimate the amount of flow discharged each day.

5. The Petitioner shall sample, using NPDES approved methodologies, the discharge for BOD, TSS, pH, ammonia nitrogen, chlorine residual and fecal coliform.

6. The Petitioner shall submit to the Agency its estimated flow and laboratory analyses to the address shown below.

7. The Petitioner shall discharge to the drainage ditch in such a manner that the flow can be controlled and measured for flow preferably by the use of pumps.

8. The Petitioner shall notify the Agency's Springfield Regional Office (217/786-6892) by telephone of whenever discharging is commenced.

9. Within 10 days of the date 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
Compliance Assurance Section
2200 Churchill Road
Springfield, Illinois 62706

This certification shall have the following form:

CERTIFICATION

I, (We), _____, having read the Order of the Illinois Pollution Control Board in PCB 85-207, dated December 20, 1985, 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

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 20th day of December, 1985 by a vote of 7-0.

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