

ILLINOIS POLLUTION CONTROL BOARD
April 21, 1983

AMOCO CHEMICALS CORPORATION,)
)
 Petitioner,)
)
 v.) PCB 83-54
)
 ILLINOIS ENVIRONMENTAL)
 PROTECTION AGENCY,)
)
 Respondent.)

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

This provisional variance request comes before the Board upon an April 20, 1983 Recommendation of the Illinois Environmental Protection Agency (Agency). The Agency recommends that a 45-day provisional variance be granted to Amoco Chemicals Corporation (Amoco) to allow it to discharge floodwaters from its eight surge lagoons back into the Mississippi River (river). A similar provisional variance was granted to Amoco on January 13, 1983 in PCB 83-7 for the period January 24, 1983 through March 9, 1983 to allow the discharge of water resulting from a December, 1982 river flood.

Amoco owns and operates a petroleum additives manufacturing plant in Wood River, Illinois which treats its process wastewater in a secondary wastewater treatment plant prior to discharging the wastewater into the Mississippi River via the City of Wood River's 84 inch sewer. A series of eight lagoons, which are located adjacent to the river, provide storage and stormwater surge capacity. Lagoons 1 and 2 are enclosed by a dike at elevation 437 MSL, while lagoons 3 through 8 are separated from the river by a dike which has a low point elevation of about 425.7 MSL.

During the latest flooding of the Mississippi River in April of 1983, a leak developed in the dike along Lagoon 5 at a rate of approximately 50 to 100 gallons per minute. After Amoco discovered this leak on April 6, 1983, in order to prevent further structural damage, the gate at outfall 002 was immediately opened to equalize hydraulic pressure on both sides of the dike by allowing floodwater to flow into the lagoons. To prevent further erosion and total dike failure, rock and clay material were also placed in the area of the leakage. On April 10, 1983, the river crested about 14 inches over the dike which would have flooded the lagoons even if sand bagging had been accomplished according to Amoco's initial proposal in PCB 83-7. (See: Exhibit B).

All eight lagoons, which have a combined surface area of approximately 50 acres and a total volume of 200 million gallons, are presently flooded. Amoco is requesting this variance from the 25 mg/l total suspended solids (TSS) limitation delineated in Section 304.120(b) to allow it to discharge approximately 110 million gallons of floodwater into the river and return the lagoon level to the pre-flood elevation of 419.7 MSL. To avoid further structural damage to the dike, Amoco plans to drain down and discharge water from the lagoons simultaneously with the recession of the river. As the river begins to recede, it is likely that the TSS content of the water will be greater than the 25 mg/l allowed by Amoco's NPDES Permit and Section 304.120(b). Past data derived from water sampling tests after the December, 1982 flooding episodes have shown the TSS of river water entering the lagoons to be 364 mg/l.

However, Amoco's previous discharge (which was allowed under conditions set by the Board's Order in PCB 83-7) resulted in only one sample that exceeded 25 mg/l TSS. The Agency believes that the current proposed discharge will not have a significant environmental impact on the river because most of the water will merely be returned from whence it came and the wastewater drawn from the lagoons and treated before discharge will be of better quality than the receiving stream. (See: Exhibit C & D).

There are presently some oily solids in lagoons 1 and 2 which Amoco had previously agreed to remove as a prerequisite for its transfer of wastewater treatment plant ownership to the City of Wood River which is scheduled for the 4th quarter of 1984. However, in order to properly clean these lagoons, the water level must be reduced to as low a level as physically possible. While Amoco plans to draw wastewater from lagoons 1 and 2 for treatment at its plant, it would inordinately delay the timetable for transfer if all the floodwater has to be treated in that manner. (See: Exhibit A). Agency observations during the previous flooding incident confirm that no environmental problems are likely to result from lagoons 1 and 2. (See: Exhibit D).

Permanent repair work in the area of the leaking dike will begin after the lagoon level is returned to pre-flood elevation. The installation of an impervious core in the center of the dike and driving sheet piling are some methods of repair which are presently being considered to prevent a recurrence of any dike leakage. (See: Exhibit A).

The Agency has noted that, if Amoco's requested provisional variance were denied, "it could result in more serious problems in the future should additional damage to the dike occur before repairs can be made. Furthermore, it could result in delays in cleaning lagoons 1 and 2 and thus the transfer of Amoco's WWTP to the City of Wood River." (Rec. 3-4).

The Agency has concluded that compliance on a short-term basis with the total suspended solids limitation of 35 Ill. Adm. Code 304.120(b) would impose an arbitrary or unreasonable hardship. It, therefore, recommends that the Board grant Amoco a variance from Section 304.120(b) for a period of 45 days to be retroactive with the date Amoco begins its discharge, subject to certain conditions.

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

ORDER

Amoco Chemicals Corporation is hereby granted a provisional variance from the total suspended solids limitation of 35 Ill. Adm. Code 304.120(b) for a period of 45 days to be retroactive with the date Amoco begins its discharge, subject to the following conditions:

1. Amoco shall inform Robert Broms, Manager, Compliance Assurance Section, Division of Water Pollution Control (217/782-9720):
 - a.) the day the discharge begins; and
 - b.) the day discharge ceases;
2. Amoco shall sample the discharge twice per week for the parameters listed in its NPDES permit and submit the results within 10 days after the end of each calendar week of discharging to Robert Broms, Manager, Compliance Assurance Section;
3. Amoco shall cease discharging if any of the results of the above tests exceed permitted levels other than for suspended solids;
4. Amoco shall not discharge any sludge and any discharge that exceeds 25 mg/l TSS shall cease after the lagoons reach a level of 419.7 MSL;
5. Amoco shall make necessary repairs to the dike to assure its structural integrity as soon as possible;
6. Amoco shall take necessary steps to prevent flooding in the future which, at a minimum, shall include the steps listed in Exhibit B;
7. Within 10 days of the date of the Board's Order, Amoco shall execute a Certificate of Acceptance and Agreement which shall be sent to : Illinois Environmental Protection Agency, Division of Water Pollution Control, Compliance Assurance Section, 2200 Churchill Road, Springfield, Illinois 62706. This certificate shall have the following form:

CERTIFICATION

I, (We) _____,
having read the Order of the Illinois Pollution Control Board in
PCB 83-54 dated April 21, 1983, understand and accept 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, Christan L. Moffett, Clerk of the Illinois Pollution
Control Board, hereby certify that the above Opinion and Order
was adopted on the 21st day of April,
1983 by a vote of 4-0.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board