ILLINOIS POLLUTION CONTROL BOARD
March 24, 1983

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
Complainant,	)	
v.	)	PCB 80-151
ARCHER DANIELS MIDLAND, a Delaware Corporation,	)	
Respondent.	)	

MR. VINCENT W. MORETH AND MR. BRUCE L. CARLSON, ASSISTANT ATTORNEYS GENERAL, APPEARED ON BEHALF OF THE ENVIRONMENTAL PROTECTION AGENCY;
MR. WAYNE L. BICKES AND MR. DAVID SMITH, ATTORNEYS AT LAW, APPEARED ON BEHALF OF ARCHER DANIELS MIDLAND.

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

This matter comes before the Board upon an August 8, 1980 Complaint filed by the Illinois Environmental Protection Agency (Agency) alleging that Archer Daniels Midland (ADM) has violated the Illinois Environmental Protection Act (Act) and various provisions of 35 Ill. Adm. Code, Subtitle C: Water Pollution (old Chapter 3 of the Board's rules). An amended complaint was filed on February 6, 1981, a second amended complaint was filed on October 9, 1981, and a third amended complaint was filed January 19, 1982. All amendments were allowed. Seven days of hearing were held from January 27, 1982 through February 9, 1982 at which both parties and members of the public appeared and testified.

Archer Daniels Midland (ADM) owns and operates a facility located on the southwest corner of Faries Parkway and Brush College in the northeast quadrant of the City of Decatur. The facility is a soybean extraction plant, a corn germ extraction plant and a vegetable oil refinery. It occupies approximately 25 acres and is equipped with elevators containing approximately 100 concrete reinforced grain tanks which are approximately 125 feet tall with facilities for loading in and out grain and refined products by both rail and truck.

The Homewood Fishing Club Lake is a small, shallow body of water created by damming up an unnamed tributary which drains the area to its north, including the ADM plant. It is approximately two to two and one-half acres in size and overflows into Lake Decatur.

The area affected is primarily the Homewood Fishing Club property. Homewood Fishing Club is a corporation which owns some acreage immediately beside its lake and includes a total of seventeen homes. There are approximately thirty residents living on Club property.

The ADM west plant was built in the 1920's by the Shellabarger Grain Company and has been operated as a grain milling and processing plant ever since. Sometime later the plant was acquired by Spencer Kellogg and finally ADM acquired the plant in 1952.

In 1971 the company built two tanks, each having a capacity of 180,000 to 200,000 gallons. Initially, one tank was used for waste water processing and the second tank was designed to be used as a clarifier. This was to clarify surface storm water which had been pumped into it from the storm water sewers. In 1976 the method of handling surface water was changed to a "first flush" concept.

The plant has a substantial system of storm water sewers which holds 300,000 gallons of rainwater in and of itself. In addition to that, a portion of the plant is on a separate system which channels all free water into the process water system.

As rainwater starts filling up the storm sewers, two 5,000 gallon per minute pumps are activated and the initial rainwater run-off is then pumped into the holding tank. As the holding tank fills, a portion of that water is pumped into the waste water tank. The concept is that the first one inch of rain washes the plant down and the contaminated rainwater is then pumped into the holding tank which is not discharged into the tributary. However, if the rain continues, there is a discharge into the tributary.

The Complaint consists of seven counts: Count I charges ADM with effluent and water quality violations in that it discharged effluent from its plant which contained bean oil and other contaminants in sufficient quantities to cause the dissolved oxygen level in the tributary to the Homewood Fishing Club Lake (Lake) and the Lake itself to be less than five milligrams per liter (mg/l). Count II charges ADM with additional effluent and water quality violations through the discharge of effluent which contained settleable solids, floating debris, visible oil and a noticeable color and odor into the tributary, thereby causing it and the Lake to become contaminated. Count III charges that ADM violated its NPDES Permit by allowing contaminated storm water containing sludge, floating debris, visible oil and color and an unnatural odor to be discharged into the unnamed tributary causing it and the Lake to become contaminated with unnatural sludge and bottom deposits, floating debris, visible oil and color and to emit an unnatural odor. Count IV charges that ADM allowed the storm water clarifier at its plant to discharge effluent into the unnamed tributary containing, inter alia, deoxygenating wastes in such quantity and

concentrations as to cause the dissolved oxygen level of the Lake to be reduced to 0.0 mg/l thereby killing 4,336 fish worth an estimated value of $1,008.04. Count V charges that ADM violated its NPDES Permit by discharging effluent which had BOD_5, suspended solids, oil and grease in excess of permit limits. Count VI and VII charge ADM with additional effluent and water quality violations for BOD_5, suspended solids, oil, floating debris, grease and obvious turbidity.

ADM does not seriously contest the Agency's allegations; it contends that the majority of the violations were "accidental," that other sources contribute to the pollution of the tributary and Lake, and that there is no viable solution to the problem.

COUNT I

Regarding Count I, Mr. George T. Bachman, a field environmental engineer with the Agency, testified that on July 20, 1975, he received a call from Mr. Ed Lloyd, an employee of ADM, who informed him that Mrs. Trueblood, who lives next to the headwall of ADM's discharge, had called ADM and complained of odors coming from the stream that runs behind her house. Mr. Lloyd stated that due to a 2½" to 3" rainfall, ADM's storm water clarifier had been overflowing for several hours (R. 356), and that samples of this overflow material were being collected and sample results would be furnished. (See Compl. Ex. 67).

Mr. Bachman also collected his own water samples from the tributary and from the Lake itself. These sample results showed the dissolved oxygen level of the Lake to be 0.0 mg/l and the dissolved oxygen of the tributary to be 1.2 mg/l. Further, based on BOD_5 and TSS analyses, the population equivalent of the discharge was 52,500 (R. 378).

In 1974 prior to the July 20th discharge, Mr. Bachman had done a dye test demonstrating that ADM's storm water "clarifier" did in fact outlet behind Mrs. Trueblood's house (R. 378), a fact ADM has known since that time (R. 378).

Mr. Rodney Horner, a fish pathologist for the Illinois Department of Conservation, also testified that the dissolved oxygen level of the Lake, when tested in July of 1975, was 0.0 mg/l of oxygen. He further testified that during the course of conducting his fish kill count he found dead fish that were windrowed in an oily scum that looked like bean debris and soybean sludge (R. 264). Mr. Horner was familiar with this type of material in that he had at some time earlier inspected a similar type of grain processing company that discharged bean oil and residue into a nearby waterway and observed this discharge (R. 265). When asked what effect the bean oil and bean sludge would have on the dissolved oxygen level of the Lake, he replied that "bean dust oil sludge combination, when in water, would provide an excellent bacterial culture medium. And it's the

bacteria utilizing this stuff as food that takes the oxygen out of the water, utilizing the oxygen in their metabolism" (R. 265).

Mr. Richard Ryczek, a project engineer in the Environmental and Energy Control group of General Motors Corporation and a former Agency Environmental Engineer, testified that on June 22, 1978, he was called to investigate another fish kill at the Lake. When he arrived he observed an oil slick floating on the surface of the Lake and an oily residue similar to bean oil along the high water mark of the tributary (R. 91-92). During the course of his investigation and while he was inspecting ADM's storm water holding tank (formerly referred to as a clarifier), he observed material remaining in the tank that was covered with an oily substance very similar in appearance to what he had previously observed by the stream (R. 94). This material was also characterized by Mr. Ryczek as being similar to bean oil (R. 920).

ADM does not deny that on June 20, 1978, June 30, 1978 and July 1, 1978 they discharged contaminated storm water from their plant. (See Compl. Ex. 24).

On July 28, 1979 another fish kill occurred at the Lake. ADM called Mr. Leonard Bridges, an Environmental Protection Specialist with the Agency, to inform him that an estimated 800,000 gallons of contaminated storm water had overflowed their tank (R. 161). Mr. Bridges was told by Mr. Mayfield, an ADM employee, that approximately 10 to 12 barrels of bean oil had been discharged along with 800,000 gallons of contaminated storm water (R. 170). The presence of bean oil was confirmed by laboratory analyses of samples collected by Mr. Bridges at the lake and the stream. (See Compl. Group Ex. 73). Further, analysis of the lake waters, as evidenced by Compl. Ex's. 33, 34, 35 and 36, revealed 0.0 mg/l dissolved oxygen.

COUNT II

Regarding Count II, Mrs. Trueblood testified that the water in the tributary which runs behind her house becomes black and contains slimy looking deposits just about every time after it rains and that several times ADM sent a clean-up crew to sweep the black slimy deposits off the edges of the banks so they would flow down the stream (R. 537-538). She also testified that ADM once discharged something that was so bad she called the police (R. 538). The smell was characteristic of lye and the fumes were so heavy and thick that they permeated her house and made her gag (R. 538).

Mr. Ryczek testified that on June 22, 1978, a short time after ADM's discharge, he noticed the water in the Lake had an unnatural yellowish-green color and gave off a musty unnatural odor (R. 90). He went on to testify that he observed an oily substance floating on the north end of the Lake (R. 91). An inspection of the tributary revealed that along the high water mark there was an oily residue similar to bean oil and similar to what he saw in th storm water holding tank at ADM (R. 94).

Letters from ADM to the Agency show that on July 3 and July 19 of 1976 (Compl. Ex. 2), January 11 (Compl Ex. 3), May 4, 5 and 6 of 1977 (Compl. Ex. 4), and June 10 (Compl. Ex. 5), June 30 and July 1 of 1978 (Compl. Ex. 24), ADM allowed discharges of contaminated storm water from their holding tank to occur. Each letter was sent by ADM notifying the Agency of a bypass (as required by its NPDES Permit).

Mr. Robert Hunter, a homeowner on the Lake and professional pilot, testified that on June 20, 1978 while he was on a pleasure flight over Lake Decatur he noticed an oil slick out in the lake (R. 509). He followed the slick in an attempt to determine where it was coming from and determined that it originated at the spillway where the Lake spills over into Lake Decatur. Once he landed, he went to the Lake and traced the oil all the way up to the headwall behind Mrs. Trueblood's house (R. 513). At the headwall he determined that the oil was being discharged from ADM's outlet.

The lab sheets for the material discharged on the dates of alleged violations reveal it contained high concentrations for BOD_5, suspended solids and oils (Compl. Ex's. 39, 40, 41 and 42). Compl. Ex. 39, a lab analysis sheet for a sample collected by Mr. Bridges from behind Mrs. Trueblood's house shows 11,900 mg/l BOD_5, 870 mg/l suspended solids and 3020 mg/l oil. Compl. Ex. 40, the analysis sheet for the sample collected from behind Mrs. Hudson's house, shows 7130 mg/l BOD_5, 4000 mg/l suspended solids, 1740 mg/l oil, and 0.3 mg/l dissolved oxygen. Compl. Ex. 41, the lab sheet for the sample collected from the area near the clarifier, shows 54,000 mg/l suspended solids, 11,600 mg/l oil and 62% BOD_5.

COUNT III

Count III of the Complaint charges that ADM discharged contaminated storm water from its plant in violation of its NPDES Permit No. IL 0038113 issued July 1, 1977 which disallowed the discharge of process flow or pollutants of process or raw materials from the material handling areas within ADM's plant (Compl. Ex. 1). Similarly, the renewed NPDES Permit issued June 18, 1980 and effective July 18, 1980 provided that the discharge be "limited to storm water, free from process and other waste water discharges" (Compl. Ex. 72).

ADM's Discharge Monitoring Reports (DMR's) for the months of August (Compl. Ex. 9), and September (Compl. Ex. 10) of 1980, and April (Compl. Ex. 17), May (Compl. Ex. 18), July (Compl. Ex. 20), August (Compl. Ex. 21), and September (Compl. Ex. 22) of 1981, show that ADM discharged effluent which, based on composite samples, contained high levels of BOD_5 and suspended solids, in violation of these permit provisions. Further, the testimony of Mr. Foley

contains an admission that the first flush concept, utilized since 1975, is ineffective and storm water contaminated with oil and waste by-products is still being discharged and will continue to be discharged (R. 602). During April of 1981, 180,000 gallons were discharged with an average of 116 mg/l oil and grease. In August of 1981, 1,193,265 gallons of contaminated storm water was discharged with an average of 84.5 mg/l and a maximum of 184 mg/l of oil and grease.

Thus, the Agency has established a prima facie case that on June 20, 1978, June 30, 1978, July 1, 1978, January 7, 1979, July 28, 1979 and June 26, 1981 ADM has violated the provision of its permit by discharging storm water that was not free from process and other waste.

COUNTS IV - VII

Count IV charges that on July 28, 1979 ADM discharged effluent from its plant into the tributary and the Lake which contained deoxygenating waste which caused the dissolved oxygen level of the Lake to be 0.0 mg/l. As a result, it is alleged that 4336 fish died valued at $1,008.04.

Mr. Donald W. Dufford's report entitled "Report of Pollution Caused Fish Kill Investigations of Homewood Fishing Club Lake in Macon County on July 28, 1979" was admitted into evidence as Compl. Ex. 66. ADM has presented no evidence to refute or challenge the accuracy of Mr. Dufford's report which states that the pollution was so great that it killed off even the hardiest species of fish, black bullheads, which can survive on one part per million or less of dissolved oxygen. The value of the fish kill was established to be $1008.04 (R304-308).

Count V of the Complaint charges that ADM violated its NPDES Permit by discharging effluent from its plant in violation of permit limits for BOD_5, suspended solids, and oil and grease. ADM's DMR's demonstrate these violations (Compl. Ex. 8 through 22). The accuracy of these reports has not been questioned.

Counts VI and VII both are related to the June 26, 1981 discharge. The lab analyses of the material discharged show that this material was highly polluted, containing heavy concentrations of oils, solids and biochemical oxygen demanding material (Compl. Ex's. 39-42 and 74).

While not contesting that the Agency has met its burden of proof in establishing violations, ADM contends that there is no solution to the problem under present technology, essentially arguing that compliance would impose an arbitrary or unreasonable hardship. This argument goes to the penalty to be imposed, rather than to a finding of violation. Therefore, the Board finds that ADM has violated those Board rules and those Sections of the Act as alleged in the Agency's third amended complaint.

PENALTY

In determining what penalty, if any, should be imposed to aid in the enforcement of the Act, the Board must consider the factors listed in Section 33(c) of the Act.

Section 33(c)(i) concerns the character and degree of injury to the property and general health and welfare of the people. In this regard, ADM points out that no toxic materials were discharged, that only about thirty people were affected by the discharges, and that property values have not been demonstrated to be adversely affected.

It is doubtful that those people living on the Lake find much consolation in the fact that the fish kill resulted from depleted dissolved oxygen levels rather than from poisoning. However, at least human contact with the water would not be dangerous. On the other hand, the witnesses testified that they would rarely come into contact with the Lake or the tributary in any case because the waters were often foul smelling, murky, discolored and oily. Thus, ADM's argument that no toxics were discharged merely stands for the proposition that the discharges were not as bad as they might have been.

The argument that only about thirty people were affected is neither particularly true nor mitigating. By saying that thirty people were affected, ADM admits that everyone on the Lake was affected, and while the only area residents who testified lived on the Lake, those people do not completely define the entire affected class. The evidence demonstrates that the Lake overflows to Lake Decatur. If the Lake is polluted, that pollution will be conveyed to Lake Decatur which is a public water supply and recreation area. As noted above, at least one oil slick was viewed on Lake Decatur which reached there over the spillway. Thus, the class of affected people becomes much larger.

The question of depreciation of property values is not as clear as it could be. There was no expert testimony presented (and few facts on which to base a quantitative judgment) as to the effect the pollution had on property values. However, all of the resident witnesses indicated at least a feeling that they were being deprived of an anticipated asset (the Lake) or that they would not be able to receive the anticipated value for their homes upon sale. Thus, regardless of the actual increase or decrease in their property values, their perception is that the value has decreased, indicating that enjoyment of their property has been impaired.

Of particular note in determining the extent of interference is the testimony of the residents. Robert Hunter testified that since the summer of 1975, the Lake has changed from "a pretty,

nice, fairly clear and acceptable lake to a little short of sewer condition" (R. 510), and that he has not been able to use it for recreational purposes for "probably ten years" (R. 513).

Evelyn Trueblood testified that after a heavy rain there would often "be a black, slimy looking deposit" on the banks of the tributary and that one morning "fumes were so thick in her house" that it made her gag (R. 538). She said it smelled like lye, that the tributary "was discolored, sort of a thick looking flow," and that she was forced to stay inside (R. 539). She further testified that it was enjoyable to live on the tributary prior to 1975, but that thereafter "it was a common thing" to be forced to limit the use of her back yard (R. 541).

Bonnie Hudson, who has lived along the tributary for twenty-eight years, testified that she purchased the house because "the backyard was like a park" with a "clear water" creek and minnows, but that in the last twelve years "the water began to get cloudy" and caused smells (R. 546 and 549). She also noted that twice during 1978 her garden was flooded and that both times she had to wash down her plants because they became "coated with an oily tan film" which was similar to vegetable oil" (R. 548). On several occasions she has observed the tributary's flow change colors (R. 547-553).

Susan Koontz testified that she and her husband bought their house on the Lake because they "fell in love with the surroundings," but that they cannot sell their home today "with the idea of recreational value, aesthetic value, or any of those things," because ADM "pollutes the lake, kills thousands of fish" and the "stench will keep you in the house for weeks" (R. 469-470). She also testified that the Lake "ferments like a vat of beer" and that stocking it with fish and frogs only results in finding "them belly up after an oil bath by ADM" (R. 471). In 1975 she would not allow her children to swim in the Lake, and in 1978 she could not use her back yard as often as she wished because of the smell (R. 481-483). Although she purchased her house in 1971 for $12,500 and it is currently valued at $50,000 (R. 474), she has made an undisclosed number of improvements and she considers its location on the Lake to be a liability (R. 482). Tom Tarvin also testified that the Lake location was not an asset (R. 1235), as did George Gibbons (R. 1244). James Ryan also testified that the Lake "looks like a beer vat, bubbles on a quiet day" (R. 1241).

Also of note is that all of the residents testified that conditions in the Lake interfered with their enjoyment of their property: none came forward with any evidence to the contrary. They also agreed that prior to the middle seventies the Lake had been an asset.

While admitting that it is not a defense to the Agency's charges, ADM contends that sources other than ADM have contributed to the poor condition of the Lake. It argues initially that by the very nature of the Lake, any materials that are washed into the Lake and settle to the bottom can never escape.

Leonard Bridges, an Agency witness, testified regarding various 1979 photos of the Lake. He stated that they showed pieces of wood, sticks, grass, plastic bottles and other materials. He testified further that he had seen a railroad car spill almost all its meal contents on the tracks south of ADM in 1980 causing a whitish growth in the streambed of the tributary.

Mrs. Trueblood testified that in March of 1980 the water in the tributary was chalky, sudsy, and had a high level of bottom deposits (R. 522). She stated that the cause of the bottom deposits was bean meal on the Illinois Central tracks (R. 522). She further testified that in August of 1977 there was another spill on the Illinois Central tracks which contaminated the stream (R. 561).

ADM produced several photographs of large grain spills on the railroad and other large quantities of grain between the tracks on various occasions between 1979 and 1981. Other witnesses testified as to spillage of various grain products on the switch tracks south of the ADM plant strung out between the tracks (R. 847, 851); and Mr. Mayfield testified that he had never seen the Illinois Central tracks without grain or meal on it (R. 949).

Certainly, not all the pollution of the tributary and Lake is from ADM. However, the contribution from other sources, especially from grain spilled along the railroad tracks does not appear to be as great as indicated by ADM. Testimony by railroad employees and exhibits showing the layout of the tracks and the elevations in the area demonstrate that much of the spilled material does not go to the tributary. (See R. 1080-1130 and Compl. Ex's. 75-78).

The violation dates alleged in the Complaint and those brought forth in testimony do not coincide with non-ADM pollution incidents that occurred in that area. The soy bean meal spill which occurred on the single track, operated by the Illinois Central Gulf Rail Road, happened in late March of 1980 and was cleaned up shortly thereafter. The Complaint does not charge that ADM is responsible for that spill.

ADM argues that the water that drains off this track area is always highly contaminated with organic matter such as bean or corn meal, but this is refuted by the lab analysis of the water taken up stream of the bean meal spill on April 28, 1980 which shows little, if any, contamination present. (Resp. Ex. 17).

ADM's other argument that the Norfolk and Western railroad classification yard is also a contributing source of pollution to the tributary and Lake also lacks merit. Mr. Robert Morrow, Senior Assistant Engineer for the Norfolk and Western railroad, testified as to the drainage pattern of the yard (See Compl. Ex. 75). He pointed out that the yards are designed in a "saucer shape" so that cars would, by force of gravity, go towards the center (R. 1083), as would storm water runoff.

Mr. Morrow further testified that he could not conceive that any runoff from the Norfolk and Western classification yards could enter the Lake since a large five-foot culvert under the tracks carries off the rain water from the yard (R. 1087 and 1102).

Mr. Lloyd Benton, the railmaster for the Norfolk and Western yards, also testified as to the drainage pattern in the yard (R. 1114), stating that the east portion of the yard drains from the east to the west (the opposite direction of the Lake and tributary and away from Brush College Road), into a drainage ditch (R. 1117). He also stated that the runoff from ADM's plant flows from the north to the south and that it eventually goes to the Illinois Central Gulf tracks along Brush College Road and from there to the tributary and the Lake (R. 1119). Finally, he testified that the runoff contains so much meal and oil that it clogs the rail switches located at the east end of ADM's plant (R. 1131).

Based on these facts, the Board finds that ADM has caused substantial interference with the public's welfare and enjoyment of property through its discharge of pollutants into the tributary and the Lake.

Section 33(c)(ii) concerns the social and economic value of the pollution source. The Board does not question that ADM has substantial social and economic value.

ADM empolyed 2,000 people in Decatur, Illinois, in 1981. 415 of these full-time employees work at the facility at issue here. The payroll at the plant is $8,000,000.00 per year, and in 1981, $5,500,000.00 was spent for capital expenditures. In that same year, ADM processed 50 million bushels of soybeans and 63 million bushels of corn in Decatur. The United States Department of Agriculture figures show that there were 68 million bushels of soybean produced within a 50-mile radius of Decatur, Illinois, in 1981, and 250 million bushels of corn in the same area. Therefore, ADM purchased 7/8 of all the soybeans grown within a 50-mile radius of Decatur and about 1/4 of the corn grown in the same area.

ADM brought forth several witnesses to demonstrate its beneficial effects on the economy of the area through employment, taxes and foundations. However, these benefits do not excuse non-compliance with pollution laws and the adverse environmental impacts. This has not been shown to be a case where benefits would be lost if the corporation were to be forced to comply. ADM's 1981 profits were $175 million (R. 924). Certainly those profits are sufficient for ADM to remain in business while meeting the pollution standards.

Thus, the Board finds that while ADM has considerable social and economic value, that value is greatly reduced by its adverse environmental impact.

Section 33(c)(iii) concerns the suitability of the site locations. The ADM west plant is located in the extreme northeast section of Decatur. The plan for Decatur has been that the industrial area should be on the lee side of the prevailing winds, i.e. in the northeast section of the city; and in that respect the facility is well situated.

The area in which ADM is located is zoned M-2 Heavy Industrial. Mr. Cherches, Director of the Department of Community Development of Decatur, testified that the ADM west plant is in conformity with the city's long-term land use plans and the zoning ordinance, and there is no more appropriate area for this facility than the area in which it is now located. Further, as to priority of location, there is no question that all of the residents in the Homewood drainage area came to the area decades after the grain milling facility was built.

The only real problem with the location is that it discharges to a small, shallow lake. Yet, even this would not be a problem if pollution standards were being met. Therefore, the Board finds that the site is suitably located.

Section 33(c)(iv) concerns the technical feasibility and economic reasonableness of reducing or eliminating the pollution.

As the Board recently held in EPA v. Victory Memorial Hospital (PCB 81-116, February 10, 1983), the burden of proof is on the respondent to show "that compliance is not technologically practicable or economically reasonable." In this regard ADM has argued that there is no viable solution to its wastewater problem. The major points that ADM raises in this regard are:

1. The Agency has proposed no solution to the problem;
2. Engineering firms hired by ADM can only suggest a partial solution; and
3. ADM stands ready to spend up to one million dollars to remedy the problem if someone will give them assurances that it will work.

It is immaterial that the Agency has not proposed a solution. As stated above, the burden of proof is on ADM. If that were not true, the Agency could be forced to become the environmental engineering consultants for all of the dischargers in the State: a role which was never intended for it under the Act. ADM's burden of proof could be met by demonstrating that no technology exists to solve the problem or that the technology is so expensive as to be unjustified. ADM, however, has not proven either proposition; rather, it has simply shown that it has not found a solution.

That the technology exists to effect a solution is clear. Even ADM admits that the Decatur Sanitary District (DSD) could adequately treat the flow if ADM were allowed to direct it there. If the DSD could treat it, it must be treatable. The question then becomes one of cost. In that regard ADM's evidence is wholly

inadequate. The only cost data presented is that a 600,000 gallon tank could be built for $600,000 and that that might not solve the problem. Thus, there is some evidence that a solution may cost in excess of that amount. However, ADM has expressed its willingness to pay up to $1 million and that amount, therefore, cannot be said to be unreasonable and even a greater amount might be reasonable, depending upon the environmental improvement which would result from compliance. However, evidence of the environmental impact is also noticeable in its absence.

Under the facts the Board finds that ADM has failed to meet its burden in establishing an arbitrary or unreasonable hardship. Therefore, the Board concludes that ADM has violated those Board rules and those provisions of the Act at the dates and times alleged.

Along with these factors, the Board must keep in mind that a penalty is to be imposed to aid in the enforcement of the Act. In that regard, it is important to consider whether the pollution events were foreseeable since a penalty cannot encourage the avoidance of unforeseeable events. ADM contends that most of the incidents should be characterized as accidents for which remedial actions have been taken which will ensure their non-recurrence.

The first of these incidents was July 20, 1975. On that date there was a heavy rain within a relatively short time. Storm water was being pumped into the tank and an overflow occurred spilling the materials from the top of the clarifier. These materials were eventually washed down into the Lake. Thereafter, the use of the tank as a clarifier was abandoned and it was used as a holding tank.

The second incident occurred on June 20, 1978. Until that time ADM had used two 1,000 gallon per minute pumps to lift storm water from the storm system to the holding tank. ADM considered that these pumps were inadequate to safely pick up the entire first flush and therefore they were installing two 5,000 gallon per minute pumps. The work took a total of thirty hours during which time ADM was caught with a heavy rain. The two 1,000 gallon per minute pumps had been pulled off line and the 5,000 gallon per minute pumps had not yet been hooked up. As a result the rain washed the first flush into the tributary.

On January 7, 1979, during severe weather, there was another incident. At that time there were check valves between the pump discharge and the holding basis, and although the pumps worked properly, water froze in the line preventing the water from being pumped into the clarifier. Mr. Garceau devised a method to drain the line so that water could never stand in the lines again.

The next incident was on July 28, 1979. During a heavy rain, an employee was to manually shut off the 5,000 gallon per

minute pumps when the holding tank became full. However, the employee charged with this obligation was absent when the holding tank became full, and a spill washed into the tributary. The actual time of the spill was only a matter of minutes. However, all of the floating material is first to overflow the holding tank: thus the worst possible materials were the first to go out. After this incident ADM installed an automatic shut-off system which would shut the pumps down when the holding tank becomes full. In addition to this, it keeps an employee present to monitor the automatic shut off during periods of rainfall.

Another incident occurred on June 26, 1981. The materials at the bottom of the holding tank were being cleaned out by an employee. He pumped some of these materials into a drain which he believed entered the sanitary sewer. However, the drain was actually connected with the storm sewer and contaminated material then entered the tributary. An investigation of the sewer system was made and the manhole to the sewer line was closed permanently by pouring concrete into it.

The Agency views these incidents in a somewhat different fashion. It states that "these multiple discharge events call into question the adequacy of operation and the degree of preventative maintainance provided" (Compl. Reply Br., p.1). The Agency also points out that these incidents are only a part of the overall allegations of violation.

The Agency is correct that these five incidents do not address all of the violations which have been found. While counts I-IV, V and VII are specifically directed at these five incidents, Count V includes violations of BOD_5, suspended solids, and oil and grease on a monthly basis from April through September of 1981 (excluding June). These violations range from approximately three to forty-seven times the permitted discharge levels. No explanation is given for those excursions, nor any mitigating evidence.

Further, there is merit to the Agency's analysis of the five incidents. Heavy rains and cold weather are certainly foreseeable events which should have been taken into consideration when the system was designed. Employees responsible for cleaning the tank should have known what drains were permissible to use, and an automatic overflow shut-off switch rather than manual operation is a simple safety measure to protect against employee negligence. That one incident occurred when pumps were being changed is more understandable, but only if the rain was highly unexpected and ADM had made a serious attempt to schedule the installation during a dry weather period, which the record does not establish.

Thus, ADM's explanations do not appear particularly mitigating and its corrective measures appear largely to demonstrate what could have, and should have, been done sooner.

Finally, ADM contends that its large expenditures on environmental improvements are mitigating. The evidence shows these

expenditures on the affected facility to be $4.5 million dollars since 1975, although the Agency demonstrated that at least some of those expenditures served other than environmental purposes as well (R. 734). However, even ignoring that contention, ADM probably spent less than one-half of one percent of its profits on environmental controls during that period, hardly a tremendous outlay of available funds, especially since the present system operates so ineffectively. Moreover, only $60,000 was spent on engineering studies specifically addressing the stormwater issue since 1975 (R. 718).

Thus, the record as a whole supports the view that ADM simply has not put a proper emphasis on environmental control at its plant and that a penalty could encourage compliance with the Act.

The Agency, based upon a United States Environmental Protection Agency penalty formula, recommends that a penalty of at least $50,000 be imposed. That amount is estimated to represent ADM's savings through non-compliance. The Board, however, has never accepted the proposition that economic savings are controlling. (See IEPA v. Wasteland, Inc., et al., PCB 81-98, August 26, 1982). It is, however, a factor to be considered.

While ADM cast some doubt upon some of the assumptions made by the Agency in determining the savings, it failed to offer any better figures or any other method for determining those savings.

Another factor to consider is what level of penalty will have an impact on ADM. Clearly, a penalty of a few thousand dollars would be de minimus to a company with profits of $175 million. The Agency even contends that $50,000 would be de minimus.

The Board finds that a penalty of $40,000 is appropriate. That amount of money will not be taken lightly. Further, ADM's conduct has not been shown to be intentional and steps were taken after several of the incidents to remedy particular problems. Such actions are somewhat mitigating.

However, there comes a time when enough problems have arisen that it is incumbent upon management to take direct and comprehensive action to remedy the overall problem rather than to simply patch up an ineffective system. This is particularly true where, as here, monthly violations of pollution standards persisted over a several month period unrelated to specific overflow incidents. There is a limited time period allowed for inaction.

ADM could have availed itself of the right to appeal its permit limitations which it now argues are unattainable, but it did not. It could have petitioned for variance or for a site-specific regulation if it believed Board limitations inappropriate for its system, but it did not. ADM could have completed more

extensive studies to determine exactly what controls would be necessary to attain compliance and what their cost would be, but it did not.

Therefore, ADM cannot now expect leniency as it throws its corporate hands in the air and asks "What could I do?"

The Agency also recommends that a cease and desist order be entered. The Board agrees that such an order is appropriate. However, some time must be granted to allow for a compliance plan to be developed and for its implementation. Therefore, the Board will specify outer limits in its order. The Board's intent, however, is that compliance be achieved as expeditiously as possible. Finally, the Board will impose a penalty of $1008.04 for the value of the fish killed.

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

ORDER

1. Archer Daniels Midland (ADM) has violated Rules 203, 402, 403, 404(c), 408(a), 410(a) and 901 of Chapter 3: Water Pollution and Sections 12(a) and (f) of the Environmental Protection Act;

2. ADM shall submit a compliance plan acceptable to the Agency to remedy these violations on or before December 1, 1983;

3. ADM shall complete construction and commence operation of the facilities described in its compliance plan and shall cease and desist from the violations noted in paragraph (1), above, by December 1, 1984 and shall take all reasonable measures to minimize violations until such operation is achieved.

4. Within 45 days of the date of this Order ADM shall pay by certified check or money order payable to the State of Illinois a penalty of $40,000 to be mailed to:

Illinois Environmental Protection Agency
Fiscal Services Division
2200 Churchill Road
Springfield, IL 62706

5. Within 45 days of the date of this Order ADM shall pay the amount of $1008.04 by certified check or money order payable to the Wildlife and Fish Fund.

IT IS SO ORDERED.
Board Member J. Anderson concurred.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 24th day of March, 1983 by a vote of 5-0.

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