

ILLINOIS POLLUTION CONTROL BOARD  
January 6, 1972

ENVIRONMENTAL PROTECTION AGENCY )  
 )  
 v. ) PCB 71-259  
 )  
 CITY OF MONMOUTH )  
 )

Mr. Prescott E. Bloom, Special Assistant Attorney General for  
the Environmental Protection Agency

Mr. Bufford W. Hottle, Jr., City Attorney, for the City of Monmouth

OPINION OF THE BOARD (by Mr. Dumelle)

This enforcement action was filed on September 3, 1971. In its complaint the Environmental Protection Agency (EPA) alleged that the City of Monmouth (Monmouth) owned and operated a sewage lagoon which accepted wastes discharged by Wilson Packing Company (Wilson) and that the sewage treatment facilities were operated in such a manner so as to create obnoxious odors causing air pollution in violation of Section 9(a) of the Environmental Protection Act. Further the complaint alleged a continuous violation. Although no commencement of the duration was averred it can be fairly said that the allegation relates from the first alleged date through the date of the hearing.

By order of the Hearing Officer on November 2, 1971 the complainant was granted leave to amend its complaint as to the particular days on which it was averred that the respondent caused or allowed the emission of odors so as to cause air pollution. The Agency enumerated May 11, 1967, September 15, September 17, September 23, September 29, 1970, and June 17, 1971 as specific dates of violation.

The City of Monmouth filed an answer to the complaint on November 2, 1971 in which it denied the substantive allegations of violations of the Environmental Protection Act. At the same time Monmouth filed a motion to dismiss alleging (1) that the Environmental Protection Act was unconstitutional because it was violative of the due process sections of the Illinois and U.S. Constitutions, (2) that the Act was unconstitutional because it provided for the imposition of fines and other punishments without allowing for

a trial by jury, (3) that the amended complaint specified a violation of the Act on a date before the Act was effective, (4) that the complaint was defective because the facts were predicated on "information and belief" without such a premise for an action being provided for by the Environmental Protection Act, and (5) that the complaint and Environmental Protection Act purported to subject a local public entity to a fine or loss of property in violation of the Local Governmental and Governmental Employees Tort Immunity Act (Ill. Rev. Stat. ch. 85, § 1-101 to 10-101).

Monmouth's contention of invalidity as to the allegation of violation for May 11, 1967 is well taken. There can be no violation of the Environmental Protection Act before July 1, 1970, the allegation pertaining to May 11, 1967 is therefore stricken. Of course, there could be a violation of pre-existing regulations or the former Air Pollution Control Act but that is not what was alleged in this case. Except for allowing that portion of Monmouth's motion as a motion to strike, our ruling on the City's move to dismiss is to deny the motion.

The first two contentions in the Motion to dismiss are untenable and must fail on the basis discussed at length in the Board's Opinion in EPA v. Granite City Steel, PCB 70-34, (March 17, 1971).

Nothing in the Environmental Protection Act precludes consideration of a complaint averred on "information and belief". No valid objection under the environmental statute can be made to allegations of fact on information and belief.

The Illinois Local Governmental and Governmental Employees Tort Immunity Act has no application to the instant facts. The operative section of that act states that "Nothing in this Act affects the right to obtain relief other than damages against a local public entity..." (Ill. Rev. Stat. ch. 85, § 2-101, emphasis added).

A hearing was held in Monmouth on November 22 and 23, 1971. At that time counsel for the EPA and Monmouth entered into a five page stipulation which provided a comprehensive background to the situation. In substance the stipulation related that the City of Monmouth, the County seat of Warren County, has a population of 11,500. It is surrounded by farming areas, where cattle, hogs and corn are raised in large quantities. In 1966 Agar Packing Company built a slaughter house and a large packing plant within the city limits of Monmouth, toward the north end of the city, and developed a successful business employing some 300 people. Agar was succeeded by Wilson-Sinclair, who bought the business in 1968. Wilson is presently the largest employer in Monmouth with approximately 370 employees. About 1965, the packing company (Agar and later Wilson) entered into a written contract with Monmouth to have its sewage

disposed of by the city in a sewage treatment plant constructed and maintained by the city. Starting in 1967 odors developed, and complaints began to be received by the City and the State Sanitary Water Board.

At the hearing Mr. Kenneth Merideth, an Environmental Control Engineer for the EPA testified that he inspected the lagoon area on September 23, 1971 and detected the odor typical of hydrogen sulfide in the area (R.24, Comp. Ex. 1).

Miss Gail Pepper, a sanitarian for the EPA testified to visiting the lagoon area on September 16, 1970 and observing paint discoloration apparently caused by hydrogen sulfide fumigation (R.39-44). She noted that what had been applied as white paint had turned in part to yellow-brown (R.44). She stated further, however, that she did not sense any hydrogen sulfide odor while speaking to several persons at their residences, who had complained to the EPA (R.41-42).

Mr. Dwight Brass, another engineer for the EPA, visited the Monmouth lagoon site on June 17, 1971 and detected a very strong odor characteristic of hydrogen sulfide (R.51-59). The odor was also detected by Mr. Brass at the Dorman residence about a half mile north of the lagoon (R.59). At another residence at which Mr. Brass interviewed a complaining party, the odor was not detected on that same day. The latter house was approximately an eighth of a mile from the lagoon (R.60).

Mr. Willard Sloss, a building contractor who lives within a quarter of a mile of the lagoon, stated that the presence of odor was a fairly constant, continuing presence, "most any day or night or month or week" (R.66). Mr. Sloss could not pin the specific presence of odor to any of the particular dates stated in the complaint (R.69-70). He did state that the odor at his residence on November 11, 1971 was an obnoxious one which awakened him (R.70).

Mr. Gerald Fischer, a farmer who is also in the livestock commission business and maintains a place of business about 960 feet from the lagoon site (R.75-76), testified as to the lagoons emissions' discoloring effect on white paint (R.79-82). He stated that he painted a portion of a building two years ago with a sulfide resistant formulation and that the paint discolored to a bluish-purple (R.79-81). He also testified to the general presence of the odor of rotten eggs (R.81-82). He stated further that he felt that the odor adversely affected his asthmatic condition (R.82-83). When the odor comes he has to leave the area (R.83). Mr. Fischer stated that the odor was present at his place of business on the morning of the first day of the hearing (R.85).

Mr. William Kinkaid, a former employee of Mr. Fischer who lived on the Fischer premises for more than 15 years, about 1000 feet from the lagoon, described the odor as worse than rotten eggs (R.87). He stated that the odor would make you sick to your stomach and caused a headache (R.87-90). He also testified that the odor made him retch (R.91). Mr. Kincaid further told of white paint turning to a yellowish-brown color (R.88). He stated that he left his employment at the Fischer place because of the odor (R89-90).

Mr. Fred King, a part time employee of the Fischer sale barn, lives about 250 feet away from the lagoon (R.95). He testified of experiencing a suffocating odor which he found to be obnoxious (R.96). He also testified as to observing the discoloration of white paint since the lagoon has been operating (R.97). He noticed that the woodwork inside his house around the windows was stained as well as the exterior painted surfaces. He said the odor was worst when there was no wind at all (R.99).

Mr. Merle Day lives about 250-300 feet from the northwest corner of the lagoon (R.101). He described the odor as "rotten eggs that have probably been rotten a couple of times over" (R.102). His wife and children have gotten sick to their stomachs from the odor (R.103-104). He described the odor as a pervasive, generally present odor (R.104). Through Mr. King several photographs of his house taken on August 19, 1971 were introduced. They showed severe discoloring of exterior white paint of the type expected from hydrogen sulfide fumigation (R.109-111, Comp. Ex. 3-9).

Mrs. Helen McMahon lives one-half mile north of the lagoon (R.113). She described the odor as generally present and obnoxious. She told of seeing her white-painted house turn brownish-black overnight in August, 1971 (R.118,122-124). She also stated that wallpaper and books inside the house turned a brownish color (R.120).

Mr. Harold Dorman lives approximately a half-mile north of the lagoon (R.125). He stated that he has kept some record of the incidence of odor at his residence since October of 1970 (R.126). Between October 30 and November 28, 1970 he detected odor 19 of 30 days. Between December 22, 1970 and January 24, 1971 he smelled the characteristic odor on 27 of 34 days. Between June 30 and August 1, 1971 he noted the odor on 25 of 32 days. Between August 29 and November 17, 1971 he recorded the incidence of odor on 53 of 81 days (R.126-128). He described the odor by saying it stinks and is "as rotten a smell as I have ever smelled" (R.128).

Other witnesses, including some called by the City, testified to detecting the rotten egg odor up to a mile from the lagoon site (R.231, 236, 247, 252).

At the end of the complainant's case counsel for Monmouth made a motion to dismiss for failure to prove their case (R.140). We deny the motion.

Mr. John McLaughlin, a Consulting Civil Engineer, who is Monmouth's present consultant as well as the engineer who designed the lagoon treatment system (R.141-143) outlined the history of the facility. The lagoon system was designed to treat the wastes from a hog kill and packing plant operation of 3,000 hogs per day with a BOD load of 8100 pounds per day (R.144).

The treatment facility consists of a three cell waste stabilization system. The first cell is an anaerobic digestion pond while the second and third cells are aerobic (R.144). The system is a common and economical one in the meat packing industry (R.145). The cost of the original construction of the lagoons was \$105,000 (R.145). The first cell is 275 feet square and 15 feet deep. The second and third cells are about 48 acres each and 5 feet deep. The total volume of water in the three cells is 117 million gallons (R.146). After the third cell the effluent is discharged to Markham Creek (R.147).

Monmouth received a letter from the Sanitary Water Board in August, 1966, shortly after the system began operation, in which the City was advised that an objectionable odor condition required attention and correction (R.147, 148, Resp. Ex. 1). Monmouth subsequently attempted to create a cover of paunch manure over the first cell (R.148-149).

Mr. McLaughlin suggested that the hydrogen sulfide generated in the anaerobic digestion could be rendered harmless by (1) containing and capturing the gas and burning it or (2) oxidizing the  $H_2S$  by exposing it to an aerobic environment (R.150). Several methods of eliminating the  $H_2S$  odor problem have been tried in the past. Recirculation from the third to the first cell was tried as a way of creating an aerobic environment at the top of the first cell to oxidize the  $H_2S$  (R.150-151). Next aeration of the top of the lagoon was tried (R.151). The Sanitary Water Board issued a permit for each of Monmouth's attempts to deal with the odor problem (R.151). The first permission was granted in May, 1968 (R. 152, Resp. Ex. 15).

Early in 1967 it was learned that hog's blood had been discharged to the lagoon system for more than a year. It was estimated that more than 500,000 gallons of blood had been diverted to the treatment facilities (R. 158-159, Resp. Ex. 3). The added BOD load, with blood having a BOD content in the range of 20,000 - 40,000 mg/l undoubtedly contributed to the poor and inadequate performance of the lagoon system (R. 159-161). Sometime after discovery, before May, 1967, the blood discharge was terminated. The performance of the lagoon improved significantly thereafter (R. 160-163, Resp. Ex. 4, 5, 6).

A further letter from the Sanitary Water Board to Monmouth in March, 1968 reiterated the existence of the H<sub>2</sub>S odor in the area without recommending any solution to the problem (R. 164-166). In January, 1969 the Sanitary Water Board advised Monmouth of the persistence of the odor problem and recommended again that a cover be established on the lagoon (R. 166-168). Through the years the City has worked cooperatively with the Sanitary Water Board in attempting to abate the odor problem (R. 169).

In the last three or four months Monmouth has introduced enzymes into the wastes both at the packing plant and in the first lagoon cell in an added effort to break down the biological wastes without generating hydrogen sulfide (R. 172, 249). The enzyme treatment has been recently augmented with the installation and operation of four aerators to create a facultative lagoon in which the bottom would be anaerobic and the upper layer would be aerobic (R. 172-173). The enzymes were stopped being put into the system on the first day of the hearing (November 22, 1971) when the contract with Mapco ran out (R. 251). The enzyme addition was only partly successful, it did not adequately relieve the problem (R. 251). Odors still persist (R. 252).

What remains to be tried is to physically cover the first cell and incinerate the H<sub>2</sub>S gas collected under the cover (R. 175). It is estimated that a cover will cost about \$55,000 (R. 175-176). Agents of Monmouth have recently inspected a cover installation in either Greenfield, Michigan or Greenville, Mississippi. The Mayor of Monmouth testified to having observed a nylon reinforced polyurethane material used to cover a lagoon in Greenville, Mississippi (R. 255-258). The Mayor stated that the city is committed to the use of the covering material for the first cell (R. 258). Starting the day after the hearing the Mayor stated that certain bacteria would be introduced into the lagoon to work on the hydrogen sulfide (R. 260). This is part of the City's plan to correct the situation. The Mayor stated that the engineering for the cover and incineration equipment is underway (R. 263) but no plans or other documents were introduced to delineate the specific plans. No specific timetable for accomplishment of the incineration was proposed. The Mayor stated he could give no more precise schedule beyond saying that the planning may take 60 to 90 days (R. 263).

In controlling the H<sub>2</sub>S odor problem in this case by incineration Monmouth must consider if they are creating an objectional SO<sub>2</sub> problem. From the state of the record we cannot ascertain the precise volume of H<sub>2</sub>S generated per day. In any event, it seems safe to assume that the quantity will not be so large as to preclude the consideration of incineration to control the odor nuisance. Beyond that, on the instant facts it would appear to be an attractive trade-off if Monmouth can substitute an SO<sub>2</sub> problem for the present H<sub>2</sub>S problem. We should add for the benefit of future parties before the Board that apart from the testimony of the strength and character of the odor as perceived by the senses it would not only be helpful but necessary in some cases to have an estimate of the quantity of the pollutant which is generated on the record.

The record contains much evidence of hydrogen sulfide fumigation continuing on a somewhat regular basis in recent years. It is clear that the odors from the treatment facilities constitute air pollution as contemplated by the Environmental Protection Act.<sup>1]</sup> An air pollution nuisance exists in the area around the lagoon, which is of varying intensity and geographical extent, due to the obnoxious odors emanating from the lagoon. That the lagoon emissions unreasonably interfere with the enjoyment of life is a proposition well founded on this record

The City of Monmouth has not done everything that it could do to improve the operation of the facilities and eliminate the odor nuisance. The history of this problem has not been characterized by inaction but the City and the packing company have simply not done enough. The odors have persisted through the years, from the commencement of the lagoon's operation in 1966. Five years is simply too long a time to not abate the environmental insult of prevalent and persistent H<sub>2</sub>S odors. Even now, where is the City's positive step by step program for abatement? The City has said that they will install a cover and incinerator, but when? Important aspects of the problem's solution are undeveloped on the record. Apart from the instant case we know of another severe H<sub>2</sub>S problem in Illinois which is well on its way to being solved.

In a variance request by Texaco, Inc. in Salem, Illinois we considered a situation in which 3,000 pounds per day of H<sub>2</sub>S was being emitted into the atmosphere. Control down to 6.5 pounds per day was effected by a system which oxidized the H<sub>2</sub>S to elemental sulfur by exposure to dissolved air in the presence of a nickel chloride catalyst (PCB 71-235, October 14, 1971; See also PCB 70-29, February 17, 1971).

The lagoon treatment facility is for the packing plant's wastes only, the city's residents are served by a separate pre-existing sewage treatment plant in use since 1932 (R.267). The City in this case is in effect holding the bag for the packing industry; it is a surrogate respondent. Nonetheless it is the City that we must focus our attention on in this case. They in turn will have to deal with the industry. They may want to consider an

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1] Air pollution is defined in Section 3(b) of the Act:

- (b) "Air Pollution" is the presence in the atmosphere of one or more contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant or animal life, to health, or to property or to unreasonably interfere with the enjoyment of life or property;

A contaminant is defined in Section 3(d);

- (d) "Contaminant" is any solid, liquid, or gaseous matter, any odor, or any form of energy, from whatever source.

industrial waste ordinance as a method of generating the funds required to deal with the problem.

We will order Monmouth to act within six months to abate the odor nuisance which has been continuing for five years. Neither the presence of the odor nor the means of controlling it are new things. We are not unmindful of the state of this record which is deficient on the questions of construction schedule and cost of control facilities. We are therefore requiring Monmouth to submit detail affidavits by February 15, 1971 estimating the cost of the needed correctives and delineating a firm schedule for their installation. Further we will enter a cease and desist order relating to the detectable emissions of hydrogen sulfide which shall take effect six months from date. That is to say, if the city has not solved the problem six months from date (and have not applied for and received relief from such order from this Board) they will have to shut down the hydrogen sulfide generating operation i.e. the treatment lagoon. We will not allow the further operation of a treatment facility which is so demonstrably inadequate as to regularly and seriously affect the daily lives of the close-in residents.

The remaining issue is the question of a money penalty. (See EPA v. City of Marion, PCB 71-25, October 28, 1971; EPA v. City of East St. Louis, PCB 71-26, July 8, 1971). The Agency has asked for the maximum penalty of \$10,000 plus \$1,000 per day for a continuing violation. We are not prepared to go so far at this time. We will impose a penalty in the total amount of \$2,000 and trust that this sanction together with the prospective cease and desist order and other parts of this order will serve to completely abate the existing nuisance.

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




ORDER

The Board having considered the complaint, answer, transcript and exhibits in this proceeding hereby enters the following order:

1. The City of Monmouth shall cease and desist from causing air pollution due to the uncontrolled emission of hydrogen sulfide odors within six months from date.
2. The City of Monmouth shall by February 15, 1972 submit to the EPA complete plans, specifications and schedule detailing the program of covering the lagoon and incinerating the hydrogen sulfide. With the exception of the specifications and any engineering blueprints, the Board shall receive 6 copies of all of the foregoing materials by February 15.
3. The City of Monmouth shall submit monthly reports, commencing on March 15 and continuing for 3 months thereafter, to the Board and the EPA detailing progress to date on their program to abate the odor nuisance.
4. The City of Monmouth shall pay to the State of Illinois, on or before February 15, 1972, the sum of Two Thousand Dollars (\$2,000.00) as a penalty for violations of the Environmental Protection Act found herein.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the Board adopted the above Opinion and Order this 6<sup>th</sup> day of January, 1972 by a vote of 4-0.

  
Christan L. Moffett *Clerk*  
Illinois Pollution Control Board

