ILLINOIS POLLUTION CONTROL BOARD
May 14, 1981

ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
)
Complainant,)
)
v.) PCB 75-112
)
THE METROPOLITAN SANITARY DISTRICT)
OF GREATER CHICAGO,)
)
Respondent.)

PATRICK J. CHESLEY AND STEPHEN GROSSMARK, ASSISTANT ATTORNEYS GENERAL, APPEARED ON BEHALF OF THE COMPLAINANT.
ALLEN S. LAVIN, JOHN C. PARKHURST AND FRANKLIN L. RENNER APPEARED ON BEHALF OF THE RESPONDENT.

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

This enforcement action was filed by the Illinois Environmental Protection Agency (Agency) against the Metropolitan Sanitary District (MSD) on March 10, 1975. The Agency alleges that MSD violated Sections 9(a) and 12(b) of the Environmental Protection Act (ACT) on numerous dates between March 7, 1974 and March 7, 1975. From July of 1977 through April of 1979, 63 days of hearings were held, 75 witnesses testified, over 150 exhibits were admitted and nearly 10,000 pages of hearing transcript were generated.

In short, the record in this case is immense, and, as such, is similar to MSD's Fulton County project which is the subject matter of the complaint. During the relevant time period this project consisted of 10,400 acres (Resp. Ex. 26). Sludge was barged down the Illinois River to Liverpool, Illinois, where it was unloaded and pumped to holding basins #1 and #2 via an eleven-mile pipeline. Holding basins #3A and #3B contained supernatant drawn off from the other basins. The total exposed surface area of the 4 basins was approximately 200 acres.

The sludge was pumped to the thirty-one fields used for application during that year. High pressure spraying on 1436.1 acres accounted for 83.8% of the 738,193 tons of sludge applied during the Complaint period (Jt. Ex. 9). Under this method of application the sludge is sprayed several hundred feet through the air (R.5985). The remainder of the sludge was applied by direct incorporation into the soil.

The Agency alleges that as a result of these applications of sludge MSD has caused air pollution. The Agency further alleges that MSD has operated its Fulton County Project in violation of Standard Condition #5 of Permit No. 1974-DB-444-OP by causing water pollution.

Given the immense record in this case and the fact that the proceeding is now over 6 years old, it is reasonable to expect that the issues are complex and difficult to resolve, and that the Board's resolution of the matter will be of substantial import, especially to MSD and the citizens of Fulton County. However, such is not the case. MSD seeks vindication and approbation for not destroying the life of Fulton County. The Agency seeks a $10,000 penalty and a cease and desist order for odors caused by MSD 6 or 7 years ago and which have, apparently, long since diminished. $10,000 probably would not pay for the preparation of one-third of the transcript in this proceeding (not that the Board bases its penalties on such factors). This case is an embarrassment of length.

MSD does not contend that sludge is always an odorless product or that sludge odors have not been carried beyond its Fulton County property (Resp. Brief p.14). Agency witnesses confirmed this.

The Agency called 34 citizens to testify regarding the odors. Lyle Ray, the Agency's prinicipal field investigator of MSD's project, noticed odors on several occasions (R.10, 13-14, 48-67 on Nov. 3, 1977; 122-125, 219-220 on Nov. 4, 1977, among others). Investigators from the Fulton County Health Department, (FCHD) also testified to the existence of odors (R.232-233, 237-238 on Nov. 4, 1977; 8270 and 8275). 283 complaints were made to FCHD, 193 were investigated and 94 of those investigations resulted in detection of a sludge odor (Comp. Ex. 30). Even witnesses called by MSD admitted the existence of an odor (R. 5966-5968, 5970, 5983-5984, 6001, 7773-7778, and Comp. Ex's 40, 48 and 65-68).

The question here, then, is simply one of degree: were the odors "in sufficient quantities and of such characteristics and duration as to be injurious to human... health, or to unreasonably interfere with the enjoyment of life or property" (Section 3(b) of the Act.)? MSD, sunsurprisingly, contends that they were not.

In support of that position MSD first cites the hearing officer's assessment of credibility of witnesses (filed July 26, 1979) wherein it states that "with rare exceptions, there were only subtle nuances in the differences in their [the Agency witnessess] patent militancy against the Respondent's project." Further, "it is impossible to find in their testimony honest objectivity of the subject matter of the issues," and they were said to have "portrayed an almost contrived antagonism toward the project."

MSD then presents a lengthy list of factors which support the lack of credibility:

a. The family connection (a number of the witnesses were related);

b. The church connection (half of the witnesses attended the same church);

c. The law suit connection (several witnesses are also involved in a circuit court case against MSD);

d. The FCCBHE connection (about 2/3 of the witnesses belonged to this environmental group which was anti-MSD); and

e. The psychology of fear (all witnesses expressed some concern about MSD other than odors).

Thus, MSD argues, any statements made by these citizen witnesses should be viewed with suspicion.

On the other hand, the Board cannot simply ignore the voluminous testimony concerning the odors. The hearing officer's statement strikes at the objectivity of the witnesses. It does not say that no part of their testimony is to be believed. Further, the factors listed by MSD are not particularly compelling, especially since the Board is uninformed as to how many people in the area surrounding the project do not fall into one or more of the categories listed. The Board certainly must hold that a violation can be found where the complaining witnesses are related, attend the same church, are angry, are worried, and have been active in opposition to the source of pollution. Thus, the citizen testimony will be considered, with a somewhat skeptical eye.

What, then, did these citizens have to say? For one thing, they all characterized the odors as objectionable. Most agreed that the odors smelled musty, oily or ammonia-like. These observations correspond with those of Lyle Ray, who testified that discing operations produced a musty, petroleum odor while spraying resulted in an ammonia-urine type odor (p.15 on Nov. 4, 1977; p.15). MSD argues that several other comparisons that were used to describe the odor do not connote particular unpleasantness (e.g. like bronze tableware that needs cleaning, or stale soap suds or permanent wave solution), but it is common knowledge that even ordinarily pleasant smells can become objectionable if they are too frequent, too strong, or last too long.

There is considerable testimony concerning the frequency of the odors. This testimony includes general recollection, "Hot-line" complaints and calendar notations. Many of the specifics were lacking, but that is not particularly surprising given the age of the proceeding.

On some points, though, all witnesses agreed. The odors were not constant. They came when the wind blew from the direction of MSD's operation, and they usually came during or after spraying.

A summary of testimony concerning frequency is given below:

Witness	Entries	Complaints	Other	Total
Melba Ripper	33	9		42
Betty Hardesty		1	3	4
Virginia Bordwine	23			23
Tom Downs	24	26		50
Lydia Downs	6	5		11
Martha Strode		8		8
Dale Vaughn		12		12
Helen Jameson		1		1
Doris Parish			2	2
Terry Beam		1	2	3
George Spyres	8	3		11
Louise Freiheit		6		6
Leatha Vegich		1		1
George Becker			6-8	6-8
Victoria Downs	16	14		30
Rosetta Vaughn	14	27		41
Charles Fulton		4		4
Robert Branchfield		6		6
Marian Del Senno		7		7
David Cape		9		9
John Huff			2-5	2-5
Lynn Logan		2		2
Dorothy Francis		2		2
Nancy Bowers		1		1
Mary Lee Taff		0-5	Sev/Wk.	0-5+
John Jameson		1		1
Meredith Ellsworth	2-3			2-3
Alice Hansberger			5-6	5-6
Imo Randolf		1		1
Lawrence Ufkin		5-12		5-12
Cecil Grove			10-12	10-12
Peter Ferre		2		2
Total	126-127	154-166	30-38+	310-331+

These figures warrant some discussion. The "Total" certainly should not be taken to mean that during the 1-year Complaint period that there were 310-331+ times when odors emanating from MSD's project were a problem. First, some of the categories may well overlap: e.g., calendar entries may also indicate days when complaints were made. Secondly, many witnesses did not keep calendar notations and may not have complained via the Hot-line or specifically testified concerning them (which would appear under the "Other" heading).

What is clear, however, is that these are not a few, isolated incidents. On numerous occasions a large number of people were sufficiently bothered by the odors to take some action to remember or complain about them.

The testimony concerning the duration of the odor also suffers from a lack of specificity, but, again, some general conclusions can be reached. Some of the witnesses testified to quite extended periods of odor. Tom Downs testified that once the odor "kept them awake all night." He also testified to the presence of odors for the entire 3 or 4 days of the Canton Friendship Festival. Martha Strode testified that odors were detectable at her home the entire Memorial Day weekend. However, more often than not, when the odors became objectionable, the witnesses would either leave their homes or retreat indoors, shut up the house and turn on the air conditioning. Therefore, the duration testimony is somewhat sparse.

Other evidence of duration results from observations of Hot-line investigators. Generally, the citizens testified that it took the investigators a long time to get to their homes after a complaint was made (most said it was often up to an hour or more, though the investigation reports show an average time-lapse of 30 minutes; Comp. Ex. 30). Peggy Faulk testified that the quickest response time was 20 minutes and the longest time was 45 minutes (R. 8299-8300). From this, MSD argues that, based upon the odors having in most circumstances diminished or disappeared by the time the investigators arrived, the duration was generally 30 minutes or less. However, three possibly inaccurate assumptions must be made to reach this conclusion: First, that the odor testified to was detected when it first arose; Second, that the Hot-line complaints were made when the odors were first detected; and third, that the reports, rather than the citizen testimony were accurate.

Another piece of evidence bearing on this issue is the testing procedure (R. 8263-8266) which resulted in 6 "matched" samples (matching MSD generated odors) indicating persistence of MSD odors over a one-hour period. MSD argues that this is the only reliable evidence of duration and that 6 one-hour episodes during the summer of 1974 are insufficient to prove air pollution.

The Board does not agree. What has been established is a minimum figure which in addition to other competent testimony indicates that odors persisted for extended time periods on numerous occasions during the complaint period.

The Board now reaches the heart of this case: whether the MSD-generated odors were such as to cause human injury or to unreasonably interfere with the enjoyment of life or property (Sections 9(a) and 3(b) of the Act).

The facts in this case are quite similar to those in the case of EPA v. Arnold May, et al., 12 PCB 321, PCB 73-109 (May 23, 1974). The adverse health effects testified to in the MSD case include nausea, loss of appetite, irritation to eyes, nose and throat, headaches, difficulty in breathing and sleeping, a bad taste in the mouth and simply feeling upset (see Comp. Brief p.16). More than one witness testified to each of these and as many as 23 found the odors upsetting. The only real difference between these complaints and those in Arnold May is that here no one actually vomited. In that case, both injury and unreasonable interference with enjoyment of life or property were found.

MSD argues that these are simply "discomforts" rather than injuries, citing People v. Decatur Sanitary District, 25PCB263, PCB 76-181 (May 26, 1977). While such terminology is used in that case, a stipulated violation of Section 9(a) of the Act was found without differentiating between injury or unreasonable interference. That case, therefore, gives little, if any, support for MSD's position.

MSD also argues that the complaints are subjective and unsubtantiated and cites Draper and Kramer v. PCB, 40 Ill. App. 3d 918, 353 N.E.2d 106, as support for the proposition that such complaints must be supported by scientific evidence. Once again, the case cited fails to support the proposition that such complaints must be supported by scientific evidence. Once again, the case cited fails to support the proposition advanced. In Draper, the Court stated that "we believe in this case... such evidence was necessary" (353 N.E.2d 109, emphasis added). As MSD notes in its Brief: "Odor perceptions are sensory and not scientific. The human nose is not an instrument that can be calibrated. It gives out no measurements or readings or print-outs" (p.18). This is not the same sort of case as Draper. There the Court questioned whether the alleged reactions actually resulted from the contaminant alleged (especially since the reactions continued long after the comtaminant ceased to be used). Here, there is no serious question raised as to the cause of the reactions; here the question, as noted earlier, is only one of the degree of the reactions. Since scientific testimony could not supply that in this case, Draper is inapplicable.

The Board finds that this case is not distinguishable from Arnold May simply because no one vomited. Sore throats, red eyes, irritated noses, feelings of nausea and interference with sleep are injuries to humans. Furthermore, under the circumstances of this case, they also prove an unreasonale interference with the enjoyment of life or property. That the interference was unreasonable is substantiated by an examination of the factors listed in Section 33(c) of the Act.

Section 33(c)(1) first directs the Board to examine the character and degree of injury to or interference with the general welfare. The Board finds that both have been proven, but that the hearing officer's statement of credibility,

the testimony of resident witnesses on behalf of MSD, who did not find the odors to be offensive, the testimony of Lyle Ray and the Hot-line investigation reports which characterize most of the odors detected as slight, the degree of interference does not appear to be great. There is no indication of long-term injury to Fulton County or its residents; people have not moved out because of the odors and there has been no great disruption in their lives. On the other hand, the testimony makes it clear that the odors were something more than a trifling inconvenience as they are characterized by MSD.

Second, Section 33(c)(2) directs the Board to consider the social and economic value of the pollution source. The Board does not question the social or economic value of the Fulton County project when operated in a proper manner. However, both parties agree that the application of sludge to land can cause odor problems. Therefore, it was incumbent upon MSD to take all reasonable steps to minimize or eliminate that odor. This it has not done, and that failure reduces the social value of the project.

Third, the Fulton County project is well-suited to its location. The area surrounding the project is predominantly rural in nature except for small villages on the south and southeast. The nearest concentration of homes to the west of the project is about 4 miles and to the north about 2 miles. The City of Canton is about four miles to the northeast of the major portion of the project and about 1½ miles from an extension of MSD's holdings. In short, the project is located in a sparsely populated area (See Comp. Ex. 6). Further, the project is located in what was a strip mining area, and the application of sludge to that land, especially when incorporated by discing, helps to reclaim agricultural land. MSD raised crops on 3,941 acres of its Fulton County property in 1978 (See Resp. Ex. 52).

On the other hand, these considerations suffer from the same limitations as those discussed under Section 33(c)(2), above. Since many of the complaining witnesses live within 1½ miles of some application area, odors should have been kept to a minimum. This is especially true in a case such as this in which the majority of the citizen witnesses had lived in the area prior to the advent of the MSD project.

The final Section 33(c) consideration concerns the technical practicability and economic reasonableness of reducing or eliminating the odors; in short, whether the emissions were reasonable.

The Board finds that the emissions were not reasonable in that techniques for reducing the odor were both available and affordable. By eliminating those conditions which tend to increase odor potential, it is possible to utilize sludge without polluting the air to an unreasonable degree.

Much of the sludge applied during the complaint period was Imhoff sludge, a sludge which is not fully digested and has known odor potential (R.7197). In March of 1974, 15% of the sludge in Holding Basin #2 was Imhoff sludge, and during the application season of 1974, only sludge from that Basin was used for land application (R.5791, 7208-7210, and Comp. Ex. 65). Other, more fully digested sludges, which have a lesser odor potential, were available on-site.

Secondly, during the complaint period the principal means of application was travelling sprinklers (R.5785). These propelled sludge a distance of 200 feet through the air and to a height of 50 or 60 feet (R. 5985). Clearly, the greater the surface area of the sludge exposed to the atmospehre, the greater the potential for odor, and the more likely that the odors are to be carried off-site (R.4796 and 5972). MSD itself admits that this method of application has more odor potential than incorporation (R.5969, 5975, 7231, 8032, 8479 and 8505). This is confirmed by testimony associating more sludge odors with spraying than other MSD practices (R.920, 1967, 2683, 5544, 6416, 6429 and 6542).

Not only was there testimony that cessation of the use of Imhoff sludge and spraying is technically practicable and economically reasonable, but MSD has already done so. In 1974, MSD applied 85% of its sludge by spraying, but since 1977 all the application (except for testing) has been by incorporation. While MSD argues that this was done "as a gesture of good will to the area residents" (Resp. Brief p. 108), it is, rather, something which could, and should, have been done as soon as it became clear that odors were generating a large number of complaints.

The record is clear that complaints have continued to dwindle to almost nothing since the date this action was filed. MSD, for whatever reasons, has improved the operation of its Fulton County Project. The above-noted changes in addition to better incorporation methods appear to have made the project environmentally acceptable. While some odors do continue, the testimony is insufficient as to degree of injury and frequency of occurrence to establish that unreasonable odors continue to exist. This goes a long way to show mitigation and aids in fashioning a remedy.

Most of the citizen complaints have centered on the spraying operations and those have now ceased. While there is testimony indicating that bothersome odors continued to exist through 1977 (177-182, 814-821, 1011-1012, 8526-8527, 8531, 8572-8577 and 8548-8550, among others), Lyle Ray, as an Agency witness, testified that the odors have been less offensive in recent years (1976-1978), and that he has noted them for shorter periods of time (R.8626). He testified further that

he believed this to result from the halting of spraying operations, improving incorporation techniques, increasing the use of certain fields for crops, and the shifting of application areas away from populated areas (R. 8627).

The Agency recommends that the Board order MSD to cease and desist from causing air pollution and that it be barred from spray application, from transporting to Fulton County sludge which is not properly digested, and from storing excessive quantities of sludge in Fulton County. MSD argues that no conditions should be imposed upon it since the first two of these have already been done and the third should not be.

The Board also finds that no conditions should be imposed, but for differing reasons. While there is considerable testimony linking spraying and the use of Imhoff sludge to unreasonable odors, the record does not demonstrate that spraying or the use of such sludge will always result in unacceptable odors. The Board will not foreclose the possibility of MSD altering its rechniques so as to make such application or use in an environmentally safe manner.

The Board further finds that there has not been a sufficient showing in the record to demonstrate that the quantity of sludge in the holding basins results in air pollution. The Board, therefore, declines to order that quantity to be reduced.

The Board will, however, enter a cease and desist order. Thus, if MSD returns to its former practices and causes air pollution, further action may be taken against it.

The Board will also impose a penalty of $2500 to aid in the enforcement of the Act. The Agency recommended a panalty of $10,000. MSD, of course, recommended that no penalty be imposed. Based upon the consideration of the factors in Section 33(c), above, the Board finds that the mitigating factors of the social value of the site, the location of the site and the steps taken to remedy the problem favor a small penalty.

Finally, the Board dismisses the allegation of water pollution, an allegation which was largely ignored during the course of the proceeding, and which probably should have been totally ignored. There is no showing of discharges to waters of the state "likely to create a nuisance or render such waters harmful or detrimental or injurious" to people, animals or other legitimate uses (Section 3(n) of the Act). Further, there is no showing that it would be technologically practicable or economically reasonable to reduce or eliminate the discharges (Section 33(c)).

While Melba Ripper testified to some possible incidents of water pollution (R. 661-662 and 669), it was not clearly established that any injury was caused and some of the incidents may not have been within the complaint period (R. 669). George

Spyres also testified to an open valve in a pipeline allowing sludge to flow into a lake (R. 2066-2075 and Comp. Ex.'s 15(a)-(c)), but again, there was no showing of injury.

The most competent testimony was that of Lyle Ray who made weekly inspections of the project during the complaint period. On three occasions he detected a leak or flow of sludge onto the ground or into bodies of water.

On May 6, 1974 he reported that supernatant from a spraying operation was discharging from a retention basin into a lake. The lake was discolored in the immediate area of the discharge, but the next day there was no evidence of a fish kill or any other abnormalities (p. 103 on Nov. 3, 1977).

On July 2, 1974 he investigated a complaint that sludge spray was entering a lake. He met with melba and William Ripper, among others, and determined that the lake was a retention basin and was actually serving its purpose (pp. 174-177 on Nov. 3, 1977).

On August 8, 1974 he inspected leakage from a retention basin. It turned out that someone left a small peice of plywood in the release valve which prevented it from closing. The sludge flowed ¼ mile toward Big Creek, but stopped short of Big Creek ¼ mile (p. 191 on Nov. 3, 1977).

Lacking any testimony or other evidence of injury or of techniques to avoid these minor incidents, the Board finds that a water pollution violation has not bee proven.

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

ORDER

1. The Metropolitan Sanitary District of Greater Chicago (MSD) has violated Section 9(a) of the Act;

2. MSD is hereby ordered to cease and desist from emitting odors from its Fulton County project so as to violate Section 9(a) of the Act; and

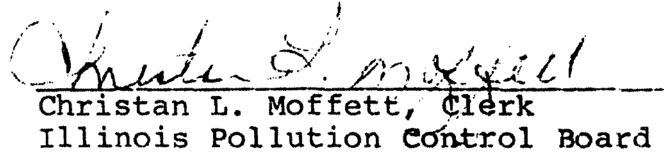
3. MSD is hereby ordered to pay a penalty of $2500 for the above-noted violation. This penalty shall be paid within 45 days of the date of this Order by certified check or money order payable to the State of Illinois and sent to:

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

IT IS SO ORDERED.

J. Anderson abstains.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 14th day of May, 1981 by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board