ILLINOIS POLLUTION CONTROL BOARD

May 23, 1974

ENVIRONMENTAL PROTECTION AGENCY Complainant, v. ARNOLD N. MAY; HILLVIEW FARMS FERTILIZERS, INC., a domestic corporation; and ARNOLD N. MAY BUILDERS, INC., a domestic corporation, Respondents.	)	PCB 73-109

Mr. Michael A. Benedetto, Jr., attorney for Complainant.
Mr. William A. Kelly and Mr. Joseph S. Wright, Jr., attorneys for Respondents.

OPINION AND ORDER OF THE BOARD (by Dr. Odell)

The Environmental Protection Agency (EPA) filed a Complaint against Arnold N. May, Hillview Farms Corp., Hillview Farms Fertilizers, Inc., and Arnold N. May Builders, Inc. on March 9, 1973. An Amended Complaint was filed April 23, 1973, and moved that Hillview Farms Corp. be dismissed in that it was not a proper party to the action. The Amended Complaint alleged that:

1. Respondents, in operating their farmland and sludge disposal facility, have spread sludge on non-permit areas in violation of 12(b) of the Environmental Protection Act (Act). Violations occurred in 1972 on February 22, April 17, August 28, September 25, and October 11.

2. Respondents created a water pollution hazard in spreading sludge on non-permit areas in violation of 12(d) of the Act. This hazard, in 1972, existed on February 22, April 17, August 28, September 25, and October 11.

3. Respondents caused or allowed sludge to be spread on the permit area or other land causing air pollution in violation of Section 9(a) of the Act.

Various motions and responses were subsequently filed by the parties. In appropriate circumstances the Pollution Control Board (Board) made rulings.

May 7, 1973 — Respondents filed a Motion to Strike Arnold N. May Builders, Inc. from the Amended Complaint.

July 2, 1973	Respondents filed several motions: a. Motion to Dismiss. b. Motion for a Jury Trial. c. Motion to Strike the Amended Complaint.
July 12, 1973	Respondents filed a Motion to Grant the July 2, 1973, Motion.
July 12, 1973	The Pollution Control Board issued an Order. The Board: a. Gave EPA additional time to respond to the Motion for Dismissal. b. Denied Motion for Jury Trial. c. Denied Respondents' Motion to Strike Amended Complaint.
July 16, 1973	Respondents filed their Objection to Written Interrogatories sought by the EPA.
July 19, 1973	EPA responded to the Motion to Dismiss and the Motion to Grant Motion.
July 26, 1973	The Board denied Respondents' Motion for Dismissal.
August 16, 1973	EPA moved for Reconsideration of the Hearing Officer's Order and Request for Exclusion of Evidence.
September 10, 1973	Respondents moved the Hearing Officer to convene a pre-hearing conference to seek relief from unreasonable EPA discovery procedures.
September 14, 1973	EPA responded to Respondents' Motion for Relief.
September 24, 1973	Respondents filed a Motion for the EPA to Produce Documents.
September 26, 1973	EPA filed its Response to Respondents' Motion to Produce.
October 10, 1973	Respondents filed Motion for a Pollution Control Board Statement on the Standard of Proof.
October 10, 1973	EPA filed a Second Amended Complaint.
October 11, 1973	Hearing Officer denied Respondents' Motion to Produce.

October 11, 1973	Respondents moved the Board to issue a Protective Order.
October 17, 1973	EPA replied to Respondents' Motion for a Board Statement and Motion for Protective Order.
October 18, 1973	The Board ruled that the standard of proof is that used in civil proceedings and denied the Motion for Protective Order.
October 19, 1973	Respondents filed an Objection to EPA's Motion for Leave to File a Second Amended Complaint.
October 25, 1973	The Board denied the Motion for Second Amended Complaint.
December 7, 1973	Respondent filed a Communication to the Board regarding the motive and credibility of Respondents in the October 11, 1973, submission of their Motion for Protective Order.
December 7, 1973	Respondents' Final Brief was submitted.
December 11, 1973	EPA filed a Motion to Strike Respondents' Communication to the Board and filed its Final Brief.

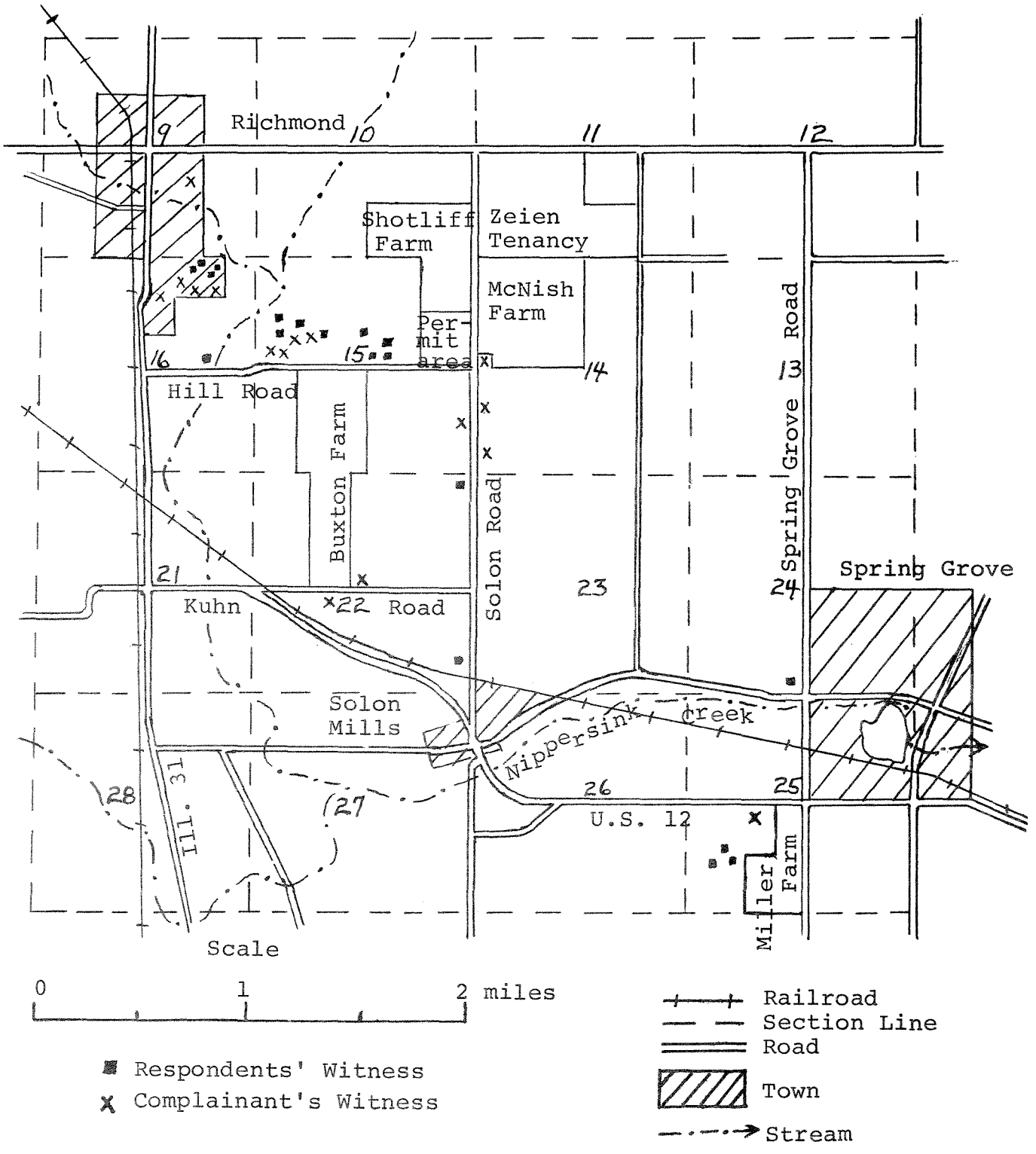
Two days of hearings occurred at the end of July, 1973. An additional five days of hearings were conducted October 22 to October 26, 1973.

Respondents' Operations

Arnold N. May has extensive property interests located in and around the town of Richmond in McHenry County, Illinois. Many homeowners have purchased land from him, and some residents live in homes built by his construction company. His endeavors have created jobs for many people in the community. The area around Richmond is primarily rural, containing grain and livestock farms and scattered residential developments. Arnold May is the president and sole stockholder of Hillview Farm Fertilizers, Inc. (R-1330). The corporation's activity is limited to receiving sludge and handling the finances associated with the sludge operation (R-1325). Hillview Farms (Farms) is separate from Hillview Farms Fertilizers, Inc.. Farms is the term used to identify the collection of tracts of land located in the Richmond area (R-1327). Legal title to these farms is held in land trust (R-1387). Arnold May is the sole beneficial owner of these farms and exercises control over them (R-1318).

Since March, 1971, Mr. May has been spreading sludge on

Part of T.46 N., R.8 E. of 3rd P.M.
McHenry County, Illinois



approximately eight separate tracts of Hillview Farms. On June 6, 1972,Hillview Farms, Arnold N. May, beneficial owner, received a permit from the EPA to apply sludge to one portion of one of these farms encompassing a 40-acre tract at the intersection of North Solon Road and Hill Road (the Permit Area). The permit (Group Joint Ex. 1) stated in pertinent part:

June 6, 1972

"Hillview Farms - (McHenry County)
Combination Digested Sludge and Feed Lot Waste
Spray Irrigation Farm
Construction and Operation
Log #699-72
PERMIT #1972-GA-576

Hillview Farms
9714 North Solon Road
Richmond, Illinois 60071

"Permit is hereby granted to Hillview Farms, Arnold N. May, owner, McHenry County, Illinois, to install, own and operate spray irrigation facilities and related appurtenances for the purpose of applying a mixture of anaerobically digested and properly stabilized liquid sludge from the North Shore Sanitary District (Waukegan Plant) together with confined animal feed lot waste to a forty (40) acre site located in the Southeast ¼ of the Northeast ¼ of Section 15, Township 46 North, Range 8 East,of the Third Principal Meridian.

"This Permit is issued subject to the Standard Conditions set forth on Page 2, attached hereto and incorporated herein by reference.

"This Permit is subject to the following Special Conditions. If such Special Conditions require additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit:

SPECIAL CONDITION #2: The maximum allowable application rate to the forty (40) acre farm shall not exceed fifty (50) dry tons per acre per year.

SPECIAL CONDITION #3: The designated weekly delivery rate of anaerobically digested and properly stabilized liquid sludge from the North Shore Sanitary District to Hillview Farms is 300,000 gallons. Therefore, the yearly delivery rate shall not exceed 15,600,000 gallons without a new permit from this Agency. (The annual total was reduced to 8,200,000 gallons in an EPA letter of January 30, 1973, Group Joint Ex. 7, to Hillview Farms).

SPECIAL CONDITION #5: The sludge mixture may only be applied to the acreage shown on Plan Drawing No. B-1 dated April 12,

1972 and received April 18, 1972. If additional acreage is to be incorporated for expanded operations, a new permit will be required from this Agency.

SPECIAL CONDITION #9: The Applicant is hereby notified that if any sludge is sprayed past the protective berms, runs off to an area other than the designated area, or is deposited in any manner, anywhere, other than the forty (40) acres expressly permitted by this Agency, this Agency will consider it a violation of this Permit.

SPECIAL CONDITION #13: The proposed project, consisting of large-scale disposal of sludge wastes on major land areas, is considered a new procedure in Illinois and is viewed as experimental at the scale proposed, and the Applicant is hereby informed that the project may be required to be modified or terminated if it results in a threat of pollution of waters, air, or lands of the State.

SPECIAL CONDITION #14: Pursuant to the Pollution Control Board's adoption of Water Pollution Rules and Regulations, this Agency has the authority to designate the duration for which the facilities may be operated, as specifically stated in Regulation #922 (b). Hence, the operation of this facility is valid for a period of two (2) years commencing from the date of this Permit. This Permit shall be subject to renewal upon receipt of an application for renewal from the owner.

"The treatment works covered by this Permit shall be constructed and operated in compliance with the provisions of the Environmental Protection Act, and Chapter 3 of the Regulations as adopted by the Illinois Pollution Control Board."

On the basis of information supplied by Respondents, they were authorized by the EPA permit of June 6, 1972, to receive and spread "anaerobically digested and properly stabilized liquid sludge from the North Shore Sanitary District (Waukegan Plant)". On the basis of information supplied by the North Shore Sanitary District (NSSD), they were authorized in a permit issued July 13, 1972, by another EPA office to haul up to 7,650,000 gallons annually of "liquid digested sludge" from seven of their plants to Hillview Farms (Group Joint Ex. 2). Testimony during the hearing indicated that the author of the EPA permit to Respondents intended the sludge to come from only the Waukegan Plant of NSSD (R-1508), whereas the author of the EPA permit to NSSD intended that the sludge from seven of their plants would be delivered to Hillview Farms (R-1575).

The Respondents' 40-acre permit area accepts, holds, and distributes the sludge; it contains a feedlot housing approximately 1,200 hogs and 400 cattle (R-1363, 4); it has an impounded area to collect runoff. Crop-growing operations occur on the permit area.

The sludge is delivered by Ronald Larsen from various sewage treatment plants. Larsen is under contract with NSSD to remove

the sludge from their facilities. Tank trucks deliver the sludge in maximum loads of 5,000 gallons per truck (R-1446) to Respondents' permit area on a year-around basis. Farms is paid $30.00 for each truck load it accepts (R-1324). Larsen also delivers undetermined loads of sludge to Hillview Farms from the towns of Mundelein, Deerfield, Algonquin, McHenry and Richmond (R-1356). Dominic DeSilvestro, who works for Western Sewage Company (R-1140, 41), has also been hauling loads (each 1,000 to 1,600 gallons) of material from Sara Lee Bakeries to the permit area (R-1447). This material is not sludge but residue of eggs and batter from Sara Lee's process. The record does not indicate how much Farms was paid for these loads. During 1972, Larsen hauled approximately 7,700,000 gallons of sludge and DeSilvestro hauled about 340,000 gallons of material to Respondents. The following summary (EPA Ex. 32) lists loads hauled during a period slightly longer than two years.

Number of loads hauled by Ronald Larsen Trucking and Dominic DeSilvestro during selected periods to Hillview Farms Fertilizers

Date	Name		Loads
March 1, 1971, through December 13, 1971	Larsen		1845
December 13, 1971, through December 15, 1972	Larsen		1551
	DeSilvestro		261
December 15, 1972, through July 16, 1973	Larsen		774
Ronald Larsen Trucking	Subtotal	4170	
Dominic DeSilvestro	"	261	
	TOTAL		4431

Upon delivery, the sludge and egg batter are deposited in an underground concrete holding tank (R-1361) having a capacity of approximately 1 million gallons (EPA Ex. 22 and 26). This tank is located beneath the barn which houses the cattle. The barn contains a slatted floor so that the waste from the cattle drops into the concrete pit. The hogs are in a separate facility with a slatted floor and a separate pit that contains only the hog dung and urine. This manure pit is drained by opening a valve so that it empties into the large sludge holding tank (R-1362). Total livestock waste approximates 1,680,000 gallons per year or 4,600 gallons per day. This figure is the sum of 400 gallons of solid and liquid waste per hog plus 3,000 gallons of solid and liquid waste per head of cattle. The mixture of sludge and manure is pumped onto the fields in the permit area, using the spray irrigation system approved by the EPA. May estimated that the ratio of sludge to cattle and hog manure remained basically constant at about 10:1 (R-1365 to 70). In conventional livestock operations of this size, liquid livestock waste from holding pits or solid manure is usually hauled from the feedlot to fields and spread on the land; liquid livestock is often knifed into the soil to minimize odors.

Evidence Concerning Violations

Permit Violations. The evidence establishes that the Respondents applied the sludge to non-permit areas in violation of Section 12(b) of the Act. Special condition #9 of Respondents' permit makes clear that any spreading of sludge on non-permit areas is a violation of the permit. Respondents argued that 12(b) was not violated because a permit was not required in order to run the spray irrigation system. We disagree. Respondents' experimental operation is clearly subject to Chapter Three: Water Pollution Regulations of Illinois. Rule 902 of Chapter Three states:

> "No person shall cause or allow the use or operation of any treatment works, sewer, or wastewater source for which a Construction Permit is required under Rule 901 without an Operating Permit issued by the Agency, except for such testing operations as may be authorized by the Construction Permit."

Rule 104 of Chapter Three defines "Treatment Works" and "Wastewater":

> "Treatment Works" means individually or collectively those constructions or devices, except sewers, used for collecting, pumping, treating, or disposing of wastewaters or for the recovery of by-products from such wastewater;
>
> "Wastewater" means sewage, industrial waste, or other waste, or any combination of these, whether treated or untreated, plus any admixed land run-off;"

The spray irrigation system operated on the permit area is a method of sludge disposal. It is clearly a treatment works in that sewage is disposed of through the spray irrigation device.

Arnold May admitted dumping of sludge on the McNish Farm and the Buxton Farm (#5 and #6 on EPA Ex. 21) after the permit was issued in June, 1972 (R-1332). Evidence of spreading on the Buxton Farm was substantiated by an EPA witness (EPA Ex. 19; R-1154). Evidence was introduced as to a liquid being spread on property north of the McNish Farm tenanted by Mr. Zeien. This occurred on August 9, 1972 (R-834, 7). The odor was characterized as "septic" (R-899). Although this date was not mentioned in the Amended Complaint, we conclude that undue surprise did not occur in regard to the proof offered for this date and that a violation has been established.

Material spread at Respondents' property near the Miller Farm on August 29, 1972, was identified as "sludge" (EPA Ex. 8) taken from the permit site (R-865, 6). No violation of 12(b) was established, however, because the witness later stated "if I said it was sludge it would not be true. I would say that it was hog manure" (R-898). Since application of sludge is not

proven, no violation of the permit has been established on this tract.

The evidence establishes that spreading occurred on an area adjacent to Kuhn Road about ½ mile west of North Solon Road on August 28, 1972 (R-1132). Respondents carried out a sludge demonstration at the site on August 10, 1972 (R-1212). No violation is found for this date because the EPA is estopped to assert any violation in that it raised no objection to this demonstration. The material observed on August 28 was not the same material spread during the August 10 demonstration. This August 28th material was described as a mixture of animal waste and sewage and was of significantly greater accumulation than that observed on August 10. EPA testimony was corroborated by a citizen witness who testified that dumping occurred at this site throughout the summer of 1972 (R-116,7) and that the smell was not that of normal farm odor; rather, it smelled like sewage (R-119).

Odors. We find that Section 9(a) of the Act has been violated. Lacking a specific regulation, air pollution exists when, under Section 3(b) of the Act:

1. Injury occurs to human, plant, animal life, health, or property or

2. Unreasonable interference occurs with the enjoyment of life or property.

Proof of either injury or unreasonable interference establishes a violation of the Act. In this case, both kinds of violations occurred.

First, Respondents' activities caused some injury to human health. The degree of injury to health was not severe, but more than mere discomfort was experienced by residents in the area. The odor made several residents sick to their stomachs (R-79, 324, 408); two women vomited from the odor (R-79, 125). One resident's eyes and throat were affected (R-114, 117). Several people described the odor as a sickening smell (R-94, 321). Neighbors complained of being awakened at night (R-74, 411, 570); one resident could not eat because of the odor (R-410). These odors were noticed at times before the Amended Complaint was filed and were attributed to Respondents' operations.

Second, interference from odors was clearly established despite the conflicting testimony of witnesses. The kinds and nature of the interference were explained by Complainant's witnesses. The following testimony represents typical statements. The odors from the May permit area were different from hog and cattle odors (R-47) and caused discomfort. Windows of the house could not be opened when the odors were bad (R-52). Septic odors from the permit area awakened witnesses (R-74, 407, 411). The odor from the sludge makes one so sick that staying outside is impossible (R-83). Animal odors are distinguishable from the smell of sludge emanating from the May farm (R-84, 94). These odors are different from the kinds of odors one expects from a

farm (R-91). The odor smells like human crap (R-93). Farm odors are different (R-119); the house had to be closed up even though no air conditioning is available (R-118). Activities had to be moved inside (R-125) and the smell is different from animal odors (R-128). The odor is different from farm odors (R-160, 172, 327) and forces one to go into the house (R-162). The odors from the permit area are not animal or fowl (R-239). A putrid stench comes from the permit area (R-321). A woman stated that she does not hang clothes outside because they pick up the smell caused by the permit area (R-471, 476). A farmer located close to May stated he could distinguish permit area odors from barn and pig odors in the area (R-568). The odors are very distasteful (R-554) and vary in intensity and duration (R-591). The odors have been worse the last 18 months and outdoor barbecuing has been curtailed (R-643).

Testimony for the Respondents contradicted that of the EPA. Typical statements were that no offensive odors have been noticed at the permit area since 1972 (R-198); only pig odors exist at the permit area (R-211). Permit area only smells like animal manure (R-231). Chicken farm odors cause the problem, not Respondents (R-304). Although he drives past the permit area several times a week, no odor problem is noticed (R-388); only typical farm odors come from the permit area (R-445); no odor problems (R-460); chicken odors are as offensive as the the May odor, and one must get used to these odors while living in a farm community (R-491). A witness only noticed hog odors from the permit area owned by May (R-658). Only pig and cattle manure smells are at the May farm (R-669).

Once interference has been established, EPA has the burden of proof to show that the interference is unreasonable in light of the factors set out in Section 33(c) of the Act. (See City of Monmouth v. EPA 295 NE^2 136, Mystik Tape v. PCB 306 NE^2 574; also see the recent Board case of EPA v. Kipling #73-329, April 4, 1974). EPA introduced some evidence of technology to control odors. Possible methods of control included the use of masking agents, aerobic digestion, discing under, and soil injection (R-1067). However, this testimony concerning control methods was too fragmentary to establish unreasonableness under Section 33(c). Looking to the other factors in Section 33(c), we find that EPA has met its burden of proof. Respondents' pollution source is of recent origin and was not in the area prior to the time that most residents purchased their property. We are also cognizant of the long duration of the interference. When we examine the chronic nature of the odor and the amount of inconvenience and consternation it caused numerous citizens, it is clear that the interference is unreasonable. Respondents countered with uncontradicted evidence that they had no obligation to run tests on in-coming sludge to see whether it was stabilized when it reached the facility (R-1499). Respondents had no practical way to determine that the sludge was unstabilized when delivered because chemical analysis to establish stability (total volatile solids and pH) cannot be rapidly performed (R-970). Odor itself is not a good indicator of digestion because fresh sewage - virtually undigested - often still contains sufficient oxygen so that an

offensive odor would not be emitted (R-974). Finally, Respondents stressed the social value of the pollution source. While we encourage experimental projects to investigate methods to handle disposal of sewage, the facts set forth here by Respondents do not, on balance, make the odorous emissions reasonable.

Water Pollution. We hold that no 12(d) violation has been established. The evidence that Respondents caused a water pollution hazard on non-permit areas is not convincing. A witness testified that there was a potential for water pollution at the Kuhn Road site (R-1133) but later testified that it would take at least a one-inch rain in 15 to 30 minutes for such runoff to occur (R-1181). The expected frequency of such rainfalls in the area was not indicated. Furthermore, the potential for runoff is slight in light of the gravel pit towards the end of the site (EPA Ex. 18, page two). The soils in this area are permeable enough that the potential for ground-water pollution may be as great or greater than from runoff (EPA Ex. 36). Water from the Zeien tenancy (marked as "16A" and "20" in EPA Ex. 1) flows into water from Twin Lakes (R-842) but no evidence was offered as to how this could be harmful or detrimental to public health. Finally, Buxton Farm is located ½ mile from Nippersink Creek (R-1190). Runoff for such a distance is too speculative on the evidence submitted to warrant a finding of a water pollution hazard. Where the threat of water pollution is not clear and convincing, no violation can be found. See EPA v. SEMCO #71-272, 3 PCB 239, 243 (December 9, 1971).

Determination Of Penalty

We dismiss Arnold N. May Builders, Inc. from this case. No proof was established of any violation against it. Complainant agrees with this finding. (See Complainant's Final Brief, page 36).

Heeding the standards in Section 33(c) of the Act, we believe a severe penalty is not warranted here. The health effects were minimal. More serious, however, is the discomfort and inconvenience caused to neighbors over a long period of time. This factor, if considered alone, would demand a heavy penalty. However, the social value of such projects is very important and weighs heavily in favor of mitigation. We favor recycling of resources and development of methods for recycling, such as were undertaken by Mr. May. Such projects are to be encouraged, but they need to be accomplished without damage to the environment and such discomfort to citizenry. Next, the basically rural character of the area is well-suited to such a project. The residents were already acclimated to odors, although doubtless could not have expected the bombardment from offensive odors from sludge. Finally, although several methods of odor control appear feasible, they may not be realistically possible once the sludge has been accepted at the permit area. Dumping of sludge at non-permit areas had minimal adverse environmental impact.

This constitutes the findings of fact and conclusions of law of the Board.

ORDER

IT IS THE ORDER of the Pollution Control Board that:

1. Respondents cease and desist from violating Section 9(a) and 12(b) of the Act. Sludge cannot be spread on locations other than the permit area unless other permits are obtained.

2. No sludge or similar materials can be accepted from any source other than NSSD unless additional permits are obtained.

3. Respondents, Arnold N. May and Hillview Farms Fertilizers, Inc., are jointly and severally liable to pay a penalty of $2,500 for violations established in this action. Payment should be made within thirty-five (35) days of the adoption of this Order. Payment should be by certified check or money order made payable to the State of Illinois, Fiscal Services Division, Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois 62706.

4. Respondents shall apply only digested and properly stabilized sludge to the permit area. Respondents can either accept sludge certified to be anaerobically digested and properly stabilized when received from suppliers, or apply sludge to the permit area only after laboratory tests show that the sludge is anaerobically digested and properly stabilized.

Mr. Dumelle dissents.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 23rd day of May, 1974, by a vote of 4 to 1.

Christan L. Moffett

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