

ILLINOIS POLLUTION CONTROL BOARD
February 20, 1997

DONETTA GOTT, LYNDELL CHAPLIN,)	
GARY WELLS, ERNEST L. ELLISON and)	
MAXINE ELLISON,)	
)	
Complainants,)	PCB 96-68
)	(Enforcement - Citizens - Air)
v.)	
)	
M'ORR PORK, INC., an Illinois corporation,)	
)	
Respondent.)	

R. P. O'CONNELL, OF RICHARD O'CONNELL, LTD., APPEARED ON BEHALF OF COMPLAINANTS; AND GEORGE J. LEWIS, OF LEWIS, BLICKHAN, LONGLETT & TIMMERWILKE, APPEARED ON BEHALF OF RESPONDENT.

INTERIM OPINION AND ORDER OF THE BOARD (by K. M. Hennessey):

This citizens' enforcement action concerns a hog confinement building and outdoor waste lagoon near the Village of Kinderhook, in Pike County, Illinois. The confinement and lagoon are operated by respondent M'Orr Pork, Inc. ("M'Orr Pork"). Complainants Donetta Gott, Lyndell Chaplin, Gary Wells, Ernest Ellison and Maxine Ellison live in Kinderhook and allege that odors from the lagoon and confinement have injured their health and unreasonably interfered with enjoyment of their lives and property. Complainants claim that these effects constitute air pollution and that M'Orr Pork therefore has violated the Illinois Environmental Protection Act (415 ILCS 5/1 *et seq.*) and Illinois Pollution Control Board (Board) regulations. Complainants also allege that M'Orr Pork has violated the Board's regulations on the siting of such livestock facilities and the field application of livestock waste.

After careful review of the evidence, the Board finds that there is insufficient proof that the odors from M'Orr Pork's confinement or lagoon have injured complainants' health or that M'Orr Pork has violated the Board's siting or field application regulations. However, the Board does find that the odors have caused unreasonable interference with complainants' enjoyment of their lives and property. The odors therefore constitute air pollution and the Board finds that M'Orr Pork has violated the Environmental Protection Act and Board regulations by causing or allowing this air pollution. Accordingly, the Board enters an interim order requiring M'Orr Pork to prepare an evaluation of measures to diminish the odor from the hog confinement and lagoon. The Board requires M'Orr Pork to submit evidence of compliance with this interim order no later than May 20, 1997. At that time, the Board will consider whether to impose a civil penalty on M'Orr Pork and whether other relief may be appropriate.

PROCEDURAL HISTORY

Complainants filed a complaint against M’Orr Pork on September 20, 1995 pursuant to Section 31(b) of the Environmental Protection Act. (415 ILCS 5/31(b).) Complainants allege that M’Orr Pork has caused air pollution in violation of the Environmental Protection Act (415 ILCS 5/9(a)) and Board regulations (35 Ill. Adm. Code 501.402(c)(3)). The complaint alleges that the “[a]ir pollution consisting of noxious odor was first observed the first part of April, 1995” and that the “pollution occurs nightly and frequently during the day time hours and continued to the date of this complaint.” (Complaint at 3.) Complainants further allege that M’Orr Pork has violated Board regulations in the siting of these livestock facilities (35 Ill. Adm. Code 501.402(c)(1), (e), (f)) and in land-applying livestock waste (35 Ill. Adm. Code 501.405(b)).

A hearing was held in this matter before the Board’s Chief Hearing Officer, Michael Wallace, on May 30, 1996 in Pittsfield, Illinois. Twenty-four witnesses, including each complainant and the owners of M’Orr Pork, testified at the hearing. Complainants waived their opening post-hearing brief; M’Orr Pork filed a post-hearing brief on June 28, 1996. Complainants filed a reply brief on July 25, 1996.

SUMMARY OF EVIDENCE

M’Orr Pork’s Operations and Proximity to Kinderhook

M’Orr Pork is an Illinois corporation, solely owned by two brothers, David and Darrell Orr. (Tr. at 149.)¹ M’Orr Pork is in the business of raising hogs. (Tr. at 149.) M’Orr Pork’s facilities are located just north of and uphill from the Village of Kinderhook in Pike County, Illinois, a town of approximately 250 people. (Tr. at 15, 66, 155, 158-159, 185, 189, 192-193; M’Orr Pork Exh. 1 and 24.) M’Orr Pork’s facilities are in an area zoned for agriculture. (Tr. at 167.) David Orr resides with his family at these facilities, in a house approximately one-tenth of a mile north of Kinderhook. (Tr. at 151-153, 174-175, 183, 192-193; M’Orr Pork Exh. 1 and 24.)

The Orr family has been raising hogs in the Kinderhook area for 24 years. (Tr. at 150-151.) These hog operations have included the use of open dirt lots for gestating sows and the use of a barn and farrowing house for sows to give birth. (Tr. at 150, 153-154, 157, 161.)

Sometime before March, 1994, M’Orr Pork decided to install a hog confinement building and outdoor lagoon in order to be more efficient in its livestock production.

¹ The transcript of the May 30, 1996 hearing is cited as “Tr. at ___.” Complainants’ exhibits are cited as “Comp. Exh. ___” and M’Orr Pork’s exhibits are cited as “M’Orr Pork Exh. ___.” M’Orr Pork’s post-hearing brief is cited as “M’Orr Pork Br. at ___.” Complainants’ reply brief is cited as “Comp. Br. at ____.”

(Tr. at 156, 179, 195.) M'Orr Pork applied for and received a permit from the Zoning Administrator of Pike County to build the confinement. (Tr. at 167-168; M'Orr Pork Exh. 2.)

David Orr stated that the confinement was placed as "far away as we possibly could" from Kinderhook's boundary to the south. (Tr. at 159-160.) Kinderhook's boundary is estimated to be between three-tenths and four-tenths of a mile south of the confinement. (Tr. at 159; M'Orr Pork Exh. 1.) The confinement and lagoon are closer to the David Orr residence than they are to Kinderhook's boundary to the south. (Tr. at 151-153, 155, 158-159; M'Orr Pork Exh. 1.) The only residence closer to the confinement than David Orr's is that of Tracy Dean, a witness for M'Orr Pork. (Tr. at 160-161, 174.) The Dean residence, which is not located on a farm, is north and apparently within 1/4 mile of the confinement. (Tr. at 255, 257-258.)

Construction of the confinement building and lagoon commenced in March of 1994 and was completed in June or July of 1994. (Tr. at 179, 195-196.) The only cost information for these facilities appears to be for the confinement itself, namely a \$60,000.00 cost estimate that M'Orr Pork set forth in its application for a construction permit from Pike County. (M'Orr Pork Exh. 2.)

The confinement building, which is 62 feet by 128 feet in size, is used for sows to give birth and to wean piglets. (Tr. at 156, 174.) A shallow gutter system under the pens in the confinement collects wastes from the hogs in the confinement. (Tr. at 282.) Periodically, M'Orr Pork uses fresh water to drain this waste into a lagoon immediately south-southeast of the confinement. (Tr. at 20, 116, 158-159, 172, 282; M'Orr Pork Exh. 1.) The lagoon has a clay lining and a capacity equal to two times the confinement's annual estimated volume of waste. (Tr. at 161, 169, 199.) At the time of the hearing, waste had not yet been removed from the lagoon because it was filled only to approximately half of its capacity. (Tr. at 200.)

At any one time, there are approximately a total of 200 sows at the hog farm, with 60 of them in the confinement, and a total of 800 piglets, all of whom are kept in the confinement. (Tr. at 155, 158, 180, 198.) The gestating sows are still kept on open lots. (Tr. at 154, 156.)

Complainant Donetta Gott has lived in Kinderhook for 54 years. (Tr. at 15.) Her home is approximately three-tenths to one-half of a mile south of M'Orr Pork's confinement building. (Tr. at 16, 159-160; M'Orr Pork Exh. 1 and 24.) Complainant Gary Wells has resided at his home in Kinderhook for 27 years. (Tr. at 114.) According to Mr. Wells, he and his family live approximately one-fifth of a mile south of the "hog complex," apparently on one of the first properties to the south of the Orr property. (Tr. at 114-115, 159; M'Orr Pork Exh. 1 and 24.) David Orr estimated the Wells residence to be approximately four and one-half tenths of a mile south of the confinement. (Tr. at 159, 162; M'Orr Pork Exh. 1 and 24.) Complainant Lyndell Chaplin has lived in Kinderhook since 1967. (Tr. at 131.) He and his wife live in the southeast part of town, approximately six-tenths of a mile south of the hog confinement. (Tr. at 131, 135, 159; M'Orr Pork Exh. 1 and 24.) Complainant Maxine Ellison has lived in Kinderhook since 1945. (Tr. at 140.) She lives south of and in the

general vicinity of the confinement and lagoon with her husband, complainant Ernest L. Ellison. (Tr. at 140, 159; M'Orr Pork Exh. 1 and 24; Comp. Exh. 12.) The evidence did not show that any of the complainants' residences were located on a farm.

Existence, Source and Effects of Odor

Existence of Odor. A number of witnesses for both M'Orr Pork and complainants testified that there was an odor in and around Kinderhook. (Tr. at 17, 42, 54, 62, 71-72, 83, 90-91, 95, 105, 115, 131, 141, 187, 212-213, 223, 232, 237, 242, 246, 269, 275, 323.) All of this testimony came from firsthand observations.

Source of Odor. A number of witnesses who live south of and downhill from the confinement and lagoon smelled a hog odor when the wind was from the north, or when there was no wind and the odor followed a draw down the hill. (Tr. at 18, 19, 28, 116, 132.) There are exhaust fans on the south wall of the confinement building. (Tr. at 196, 197.) Several complainants testified that these fans blow hog odor toward Kinderhook. (Tr. at 20, 116 .) Witnesses for both sides who identified the odor as hog odor had worked on, lived on, or been around farms with hogs. (Tr. at 56, 62, 68, 212-213, 323, 326-327.) David Orr also admitted that he had smelled hog odors in town emanating from his facilities and that they could still be smelled in town at the time of the hearing. (Tr. at 187-188.) One of complainants' witnesses, Ross Manning, a former Illinois Environmental Protection Agency (IEPA) livestock waste consultant with experience investigating odor from livestock operations, visited Kinderhook on October 10, 1995. (Tr. at 89, 90, 100.) Mr. Manning stated that on the October 10 visit he detected hog odor in Kinderhook and that based on his experience, he believed the odor was from M'Orr Pork's hog confinement and lagoon. (Tr. at 90-91.) There also is a village lagoon which appears to be located in the southwest part of Kinderhook, but no one identified it as a source of the complained of odors. (Tr. at 78-79, 178; M'Orr Pork Exh. 1 and 24.)

Effects of Odor

Injury to Health. Witnesses for complainants testified that the odor from M'Orr Pork's hog confinement and lagoon has caused the following conditions: eye, nose, throat and skin irritation (Tr. at 23-24, 55, 120-121, 141-142); respiratory problems including asthma (Tr. at 20-24, 121); and nausea (Tr. at 54-55). Several persons sought medical attention. (Comp. Exh. 7 and 15.) Several witnesses, who were not medical experts, testified that hog odor can have a negative effect on human health. (Tr. at 92-96, 317.) Complainants failed to provide any medical testimony or other scientific proof showing that these alleged ailments were caused by the odors coming from M'Orr Pork's facility.

Complainants offered into evidence two doctor's letters, one regarding complainant Ernest L. Ellison and the other regarding the wife of complainant Gary Wells. Chief Hearing Officer Michael Wallace admitted the letters into evidence only to allow complainants to show that these persons had sought medical attention. (Tr. at 343, 348; Comp. Exh. 7, 15.) Complainants do not challenge this ruling.

Interference. Complainants' evidence revealed that offensive odors from the confinement and lagoon were present beginning in the spring of 1995 and were still occurring at the time of the hearing. (Tr. at 17, 132, 143; Comp. Exh. 11, 13, 14, 16.) Complainants and other witnesses testified to the impact of the odor upon the enjoyment of their life and property. First, they described the odor as smelling "very bad," "extremely bad," "bad," and "very strong." (Tr. at 17, 106, 115, 132.) Ms. Gott testified that "[i]t's a stench, hog manure stench" and that "[i]t's terrible." (Tr. at 19-20.) Complainants kept logs or diaries over varying periods of time to document the odor problem. They showed the number of days on which there was bad hog odor as follows: Ms. Gott, approximately 217 days over about 12 months (or around 60% of that time) (Tr. at 42-43; Comp. Exh. 11); Mr. Wells and his wife, approximately 94 days over about 5 months (or around 63% of that time) (Tr. at 115-116, 118-119; Comp. Exh. 13); Mr. Chaplin and his wife, approximately 118 days over about 9 months (or around 44% of that time) (Tr. at 136-138; Comp. Exh. 14); and Mrs. Ellison, approximately 113 days over about 10 months (or around 38% of that time) (Tr. at 142, 144-145; Comp. Exh. 16).²

Complainants testified that the odor often prevents them from leaving windows open. (Tr. at 21 (Gott); Tr. at 133 (Chaplin).) Complainants testified that the odor forces them to run their air conditioners. (Tr. at 49-50 (Gott); Tr. at 133 (Chaplin).) Complainants also testified that the odors prevent them from sitting, walking or gardening outside. (Tr. at 21 (Gott); Tr. at 133 (Chaplin); Tr. at 143 (Ellison).) In addition, complainants testified that the odors prevented them from eating and grilling outside and from having guests. (Tr. at 21 (Gott); Tr. at 118 (Wells); Tr. at 133 (Chaplin); Tr. at 143 (Ellison).)

The Pike County sheriff's office has received complaints about hog odors in Kinderhook. Responding to an odor complaint on the evening of August 29, 1995, a Pike County deputy sheriff, John Pennock, who had been around hog farms before, described the hog odor in Kinderhook as the "most pungent odor I have smelled." (Tr. at 61-62, 65, 68.) Another Pike County deputy sheriff, John Grogan, also responding to odor complaints, described the hog odor in Kinderhook on the evenings of September 14, 1995 and February 24, 1996 as "very strong." (Tr. at 69-72.)

Other witnesses for complainants described the effects on their lives from the odor at issue. One witness, Ronald Eugene Hill, who lives in Kinderhook, is divorced and has weekend child visitation rights, testified that his two girls, ages 12 and 15, have asked him if they could spend the weekend in other towns because of the odors. (Tr. at 54-55.) Another witness, Nancy Cummings, who also lives in Kinderhook, testified that the odor keeps her in her house, forces her to close her windows and prevents her from doing outdoor barbecuing.

² In reviewing each of the logs, the Board considered an entry for a given day to denote "bad hog odor" if it described disrupted activities or routines or described the odor as "offensive" or "strong" or the like. Not every log had an entry for every day over the time periods the logs were kept, so to determine the percentages set forth above, each month was considered to have 30 days.

(Tr. at 104, 106, 107.) She also testified that the hog odors have impeded her attempts to sell her home. (Tr. at 108.)

Complainants introduced the testimony of Gary Weir, Mayor of Kinderhook. Mr. Weir testified that he personally had no problem with M'Orr Pork's hog farm operation. (Tr. at 83.) Mr. Weir also testified that the odor can still be smelled occasionally, that sometimes the odor is bad and that when it is bad, it "stinks" and covers the "[b]iggest part" of town. (Tr. at 84.)

M'Orr Pork introduced a number of witnesses, currently or recently living or working in or around Kinderhook, to testify that, while they could smell odor from the hog facility on occasion, it was infrequent and not so intense as to alter the usual activities or routines for themselves or their families, such as cookouts (Tr. at 175-176 (David Orr); Tr. at 264 (Daken Shane Fee)), playing outside (Tr. at 175-177 (David Orr); Tr. at 228-229 (Jane Guthrie); Tr. at 264 (Daken Shane Fee)), leaving windows open (Tr. at 175, 177-178 (David Orr); Tr. at 230 (Jane Guthrie)), having a party in the Kinderhook park (Tr. at 219 (Bonnie Jo Fee)), taking walks (Tr. at 236-237 (Donald Roy Miller)), mowing or otherwise using the yard (Tr. at 208-210 (Martin Hull); Tr. at 229-230 (Jane Guthrie); Tr. at 237 (Donald Roy Miller); Tr. at 256-257 (Tracy Dean)) and working outside around the house or in the yard and garden (Tr. at 242 (Holly Marie Silkwood); Tr. at 265 (Daken Shane Fee); Tr. at 323-324 (Sandra Smith)).

M'Orr Pork also presented the testimony of Bonnie Jo Fee, who has been a physical education teacher at West Pike High School in Kinderhook for 26 years. (Tr. at 215.) The high school is located southeast of the M'Orr Pork facilities. (Tr. at 223-224; M'Orr Pork Exh. 1.) She testified that she is often outside with her classes. (Tr. at 215.) She has never had a problem at school with odors from the M'Orr Pork facility, nor has she heard of any student complaints. (Tr. at 216, 218.) Ms. Fee does not have outdoor school activities after 6:00 p.m. on a regular basis and is not at the high school during summer vacation. (Tr. at 221-222.)

Another witness for M'Orr Pork, Sandra Smith, a teacher at West Pike High School for 20 years, testified that she had not had any problems with odor at the school and that the children had not reported any problem to her. (Tr. at 322, 324.) She also lives in the house closest to the south of the David Orr house and odors have not interfered with the enjoyment of her home or her activities. (Tr. at 323-324; M'Orr Pork Exh. 1.)

M'Orr Pork also presented the testimony of two employees of the University of Illinois Cooperative Extension Service (Extension Service), Dr. Ted Funk and Dr. William Campbell, both of whom have extensive experience with swine farms. (Tr. at 277-278, 306, 308.) Their duties with the Extension Service include livestock waste management. (Tr. at 278, 307.) They visited the M'Orr Pork facility on February 20, 1996. (Tr. at 307.) Neither found the odors from the confinement or lagoon excessive or offensive. (Tr. at 299, 308, 310-311.) Dr. Funk tested the air inside the confinement and found that it did not contain excessive levels of ammonia or hydrogen sulfide. (Tr. at 280-282.) He also performed a "qualitative test" of

the air near the lagoon and found almost no odor there. (Tr. at 286-287.) Dr. Funk admitted that hog manure odor is comprised of approximately 150 compounds and that hydrogen sulfide and ammonia may not be the worst offenders. (Tr. at 293.) He also admitted that hog odors can travel in a plume and remain potent for considerable distances. (Tr. at 293-294.) He agreed that the human nose is “extremely sensitive” and that even the small amount of odor-causing molecules in a typical air sample could induce a strong reaction in humans. (Tr. at 294.) He also admitted that he did not know the nature, extent or frequency of the odors experienced by the people of Kinderhook. (Tr. at 298.) Neither he nor Dr. Campbell interviewed any residents of Kinderhook. (Tr. at 292, 313.)

M’Orr Pork also provided a number of witnesses who testified that, since the construction of the confinement and lagoon, new homes and a new business have been established in Kinderhook (Tr. at 207, 209 (Martin Hull); Tr. at 325 (Sandra Smith); Tr. at 329 (Robin Robertson); Tr. at 332-335 (Darrell Orr)), properties in Kinderhook have been sold for the asking price or appraised value (Tr. at 227-228 (Jane Guthrie); Tr. at 266 (Daken Shane Fee)) and real estate values in Kinderhook are trending up and have not been negatively impacted (Tr. at 263-264 (Daken Shane Fee)). M’Orr Pork introduced the testimony of Marty Hull to rebut the testimony of Nancy Cummings, who had testified that the hog odors had impeded her attempts to sell her home. Mr. Hull testified that he had offered to buy Ms. Cummings’ home at the price she requested, but that she refused to complete the sale. (Tr. at 110-112, 206-207.)

Measures Designed to Mitigate Odor

M’Orr Pork has implemented a number of measures in an attempt to mitigate the effects of odor from its confinement and lagoon. Some of these measures were recommended by Dr. Funk and Dr. Campbell.

First, as recommended by Dr. Campbell, M’Orr Pork planted fast-growing trees, known as “Austrees,” south of and downhill of the confinement and lagoon to serve as a windbreak. (Tr. at 162-166, 308-309; M’Orr Pork Exh. 1.) They were planted at the end of April, 1996. (Tr. at 164.) Dr. Campbell believes that the trees will catch the air coming down the hill from the confinement and funnel off the odors to the east of town down another draw. (Tr. at 309-310.)

Second, M’Orr Pork also planted corn in the field south of both the confinement facility and the Austrees. (Tr. at 172-173; M’Orr Pork Exh. 1.) It is not clear when the corn was planted. David Orr explained that “the university” thought the corn would act as a filter and added that “corn will put off its own odor . . . during pollination and things like that.” (Tr. at 173.)

Third, M’Orr Pork started adding two products to the lagoon to control odors: “Micro-Aid,” which the Orrs began using in the lagoon in July, 1995 and “Hog Wash,” which they began adding in May, 1996. (Tr. at 166, 169-171, 189-190.) These products claim to help control manure, ammonia or lagoon odors. (M’Orr Pork Exh. 5 and 6.) While it is unclear

whether these products are being used simultaneously, David Orr testified that he believes they have helped lessen the odors. (Tr. at 166, 171.) It appears that Dr. Campbell recommended using a lagoon additive. (Tr. at 313.)

Fourth, at the recommendation of Dr. Funk, M'Orr Pork added an elbow and extension to the drainage tube from the confinement to the lagoon so that waste effluent from the confinement would not disturb the lagoon surface. (Tr. at 169, 285.) It is not clear from the record when this work was done.

Fifth, M'Orr Pork has begun draining waste from the confinement to the lagoon more often. (Tr. at 172.) It is done every 10 days, which is consistent with what Dr. Funk would recommend. (Tr. at 172, 300.) When M'Orr Pork began this practice is not disclosed in the record.

Sixth, M'Orr Pork started putting additives in the hog feed. M'Orr Pork began adding "Micro-Aid" premix in every batch of feed that it grinds. (Tr. at 167.) The premix label claims that it is to "aid in the control of manure and/or ammonia odors." (M'Orr Pork Exh. 4.) Also, at the recommendation of Dr. Campbell, M'Orr Pork began adding vegetable oil to the feed in order to reduce dust. (Tr. at 169, 318.) According to Dr. Funk, this measure reduced dust and, as a result, has reduced the possibility that dust will aid in spreading odors. (Tr. at 288.) The date on which M'Orr Pork began these practices is not disclosed in the record.

There was testimony that some of the measures implemented by M'Orr Pork may require additional time to take full effect. For example, at the time of the hearing, the Austrees had not yet grown to full height. (Tr. at 165.) In addition, the lagoon's bacteria may become more efficient at odor minimization with the passage of time. (Tr. at 284, 311.)

Dr. Campbell also testified regarding some other odor control measures that M'Orr Pork had not implemented. For example, he recommended that M'Orr Pork consider planting a longer-term tree such as pines to supplement the Austrees. (Tr. at 310.) Dr. Campbell also discussed the availability of converting the current lagoon into an aerobic lagoon. (Tr. at 319-320.) The record also raises the possibility of covering the lagoon (Tr. at 200), redirecting the exhaust fans (Tr. at 202) and using another additive in the lagoon (Tr. at 314).

DISCUSSION

The Board will first discuss M'Orr Pork's alleged violation of setback regulations. The Board will then address M'Orr Pork's alleged violation of regulations on the field application of livestock waste. Finally, the Board will turn to the allegation that M'Orr Pork has violated the Act and Board regulations by causing or allowing air pollution through its operation of the confinement and lagoon.

Setback Requirements

Complainants allege that the confinement and lagoon violate the Board's setback regulations at 35 Ill. Adm. Code 501.402(c)(1).³ That regulation provides as follows:

Upon July 15, 1991, new or expanded livestock management facilities and new or expanded livestock waste-handling facilities shall not be located within 1/2 mile of a populated area or within 1/4 mile of a non-farm residence.

It is uncontested that M'Orr Pork's confinement building constitutes a "new livestock management facility" and that its lagoon constitutes a "new livestock waste-handling facility."⁴ However, M'Orr Pork's confinement and lagoon fall within an exception to these setback requirements. Section 501.402(d)(3) provides that they do not apply where the "use of the facility as a livestock management or livestock waste handling facility is allowed by local zoning."

As stated in the Summary of Evidence, the confinement and lagoon are located in an area of Pike County which has been zoned for agricultural use. The confinement and lagoon appear to be "permitted" and "accessory" uses, respectively, within an agricultural district under Section 3.4 of the Pike County Zoning Ordinance. Section 3.4 specifically lists "buildings and structures housing poultry and livestock" as a permitted use and states that accessory uses are those which are customarily incidental to such listed permitted uses. M'Orr Pork received a permit from the Zoning Administrator to build the confinement. (M'Orr Pork Exh. 2.)

Two other setback provisions are also potentially at issue and apply to facilities even in areas with the type of zoning designation just described. First, Section 501.402(e) states that a "new livestock management facility or new livestock waste-handling facility which locates within 1/4 mile of a neighboring farm residence shall locate at the maximum feasible location from such residence." Complainants do not point to any "farm residences"⁵ within 1/4 mile of M'Orr Pork's hog confinement or lagoon, and no evidence was submitted that there are any "farm residences" within that area. In the absence of such evidence, the Board cannot find a violation of Section 501.402(e).

³ The Livestock Management Facilities Act (LMFA), effective May 21, 1996, contains setback requirements applicable to facilities whose construction or expansion is commenced after the mentioned effective date. (See 510 ILCS 77/10.45, 77/35.) M'Orr Pork's confinement and lagoon come within a grandfather provision specifying that they are subject to the already existing setback requirements of 35 Ill. Adm. Code Subtitle E. (See 510 ILCS 77/35(b).) Complainants allege violation of Subtitle E setback requirements.

⁴ "Livestock management facility," "livestock waste-handling facility," and "new livestock management facility or livestock waste-handling facility" are respectively defined at 35 Ill. Adm. Code 501.285, 501.300 and 501.330.

⁵ "Farm residence" is defined at 35 Ill. Adm. Code 501.248.

Second, Section 501.402(f) provides that a “new livestock management facility or new livestock waste-handling facility which locates within 1/4 mile of a non-farm residence or within 1/2 mile of a populated area, pursuant to subsection (d), shall locate at the maximum feasible location from such residence or populated area.” In relevant part, “maximum feasible location” requires that the livestock facilities be “located closer to the livestock owner’s or operator’s residence than to a neighboring farm residence or populated area.” (35 Ill. Adm. Code 501.317(a) (emphasis added).)

Section 501.356 defines “populated area” as “[a]ny area where at least ten (10) inhabited non-farm residences or at least fifty (50) persons frequenting a common place of assembly or a non-farm business at least once per week.” Based on the record, the only potential “populated area” within 1/2 mile would be in Kinderhook to the south. Kinderhook’s boundary is estimated to be within 1/2 mile south of the confinement and lagoon. (Tr. at 155, 158-159; M’Orr Pork Exh. 1.) However, even assuming a “populated area” is within 1/2 mile of the confinement or lagoon, the confinement and lagoon are closer to the David Orr residence than they are to Kinderhook’s boundary to the south. Thus, the confinement and lagoon are the maximum feasible location from any populated area.

Section 501.402(f) also requires that the confinement and lagoon be at the maximum feasible location from any “non-farm residence”⁶ within 1/4 mile. There is at least one non-farm residence within 1/4 mile of the confinement (i.e., the Dean residence). However, the relevant portion of the “maximum feasible location” definition references only farm residences, not non-farm residences. Because the definition does not address the situation at hand, the Board cannot find M’Orr Pork in violation of Section 501.402(f).

Field Application

Complainants also allege that M’Orr Pork has violated 35 Ill. Adm. Code 501.405(b), which deals with the field application of livestock waste. Subsection (b) requires operators of livestock waste handling facilities to “practice odor control methods during the course of manure removal and field application so as not to affect a neighboring farm or non-farm residence or populated area by causing air pollution.” There is no evidence, however, that M’Orr Pork has conducted manure removal or field application. On the contrary, the record reveals that M’Orr Pork has not removed waste from its lagoon as of yet, let alone applied it to a field. Accordingly, the Board finds no violation of Section 501.405(b).

Air Pollution

Before turning to complainants’ allegations of air pollution under the Environmental Protection Act, the Board will address M’Orr Pork’s claim that Section 3 of the Farm Nuisance Suit Act (FNSA) bars this action. (M’Orr Pork Br. at 11-14.) That statute provides as follows:

⁶ “Non-farm residence” is defined at 35 Ill. Adm. Code 501.342.

No farm or any of its appurtenances shall be or become a private or public nuisance because of any changed conditions in the surrounding area occurring after the farm has been in operation for more than one year, when such farm was not a nuisance at the time it began operation, provided, that the provisions of this Section shall not apply whenever a nuisance results from the negligent or improper operation of any farm or its appurtenances. (740 ILCS 70/3.)

The Board finds that this statute does not bar complainants' claims. Section 3 of the FNSA provides a farm with protection only from actions alleging that it has become a "private or public nuisance." Complainants here rely on the enforcement provisions of the Environmental Protection Act and allege air pollution, not on an action alleging nuisance. The FNSA was effective September 16, 1981, some 10 years after the passage of the Environmental Protection Act with its air pollution and enforcement provisions. Amendments to the FNSA as recent as January 1, 1996, make no reference to any enforcement action under the Environmental Protection Act for air pollution, instead referring only to a "nuisance action." (740 ILCS 70/4.5.) The Illinois Supreme Court has held that actions under Environmental Protection Act alleging air pollution are distinct from common law nuisance claims. (See Incinerator, Inc. v. Pollution Control Board, 59 Ill. 2d 290, 299, 319 N.E.2d 794, 799 (1974) ("violations of the Act here in question are not defined in terms of nuisances."); City of Monmouth v. Illinois Pollution Control Board, 57 Ill. 2d 482, 485, 313 N.E.2d 161, 163 (1974) (same).) Accordingly, the Board finds that Section 3 of the FNSA does not bar complainants' claims.

Even if the Board found the FNSA applicable to a citizen complaint for air pollution filed under the Environmental Protection Act, Section 3 of the FNSA would not apply to this case. As set forth in the Summary of Evidence, complainants lived in Kinderhook before the Orr's farm operations began. Thus, this case was not brought "because of any changed conditions in the surrounding area occurring after the farm has been in operation for more than one year," as is required before Section 3 of the FNSA applies.

Turning to the allegation of air pollution, complainants allege that M'Orr Pork, because of the odor from its hog confinement building and lagoon, has caused "air pollution" in violation of Section 9(a) of the Environmental Protection Act (Act) and 35 Ill. Adm. Code 501.402(c)(3) of the Board's regulations. Section 9(a) of the Act provides that no person shall:

Cause or threaten or allow the discharge or emission of any contaminant into the environment in any State so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted by the Board under this Act. (415 ILCS 5/9(a).)

"Contaminant" is defined as "any solid, liquid, or gaseous matter, any odor, or any form of energy, from whatever source." (415 ILCS 5/3.06 (emphasis added).) "Air pollution" is defined as follows:

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. (415 ILCS 5/3.02.)

Complainants also allege that M'Orr Pork has violated Section 501.402(c)(3) of the Board's regulations, which provides as follows:

Adequate odor control methods and technology shall be practiced by operators of new and existing livestock management facilities and livestock waste-handling facilities so as not to cause air pollution. (35 Ill. Adm. Code 501.402 (c)(3).)

The definition of "air pollution" in the Board's regulations is identical to that set forth in the Act. (See 35 Ill. Adm. Code 501.215.)

Complainants allege that odors emitted from M'Orr Pork's confinement and lagoon have resulted in both (1) injury to health and (2) unreasonable interference with the enjoyment of life and property. M'Orr Pork will be found to have caused air pollution in violation of Section 9(a) of the Act if the following are satisfied:

- 1) There was in fact an odor.
- 2) The odor was caused by M'Orr Pork.
- 3) The odor resulted in either (a) injury to health or (b) interference with the enjoyment of life or property.
- 4) The injury or the interference was unreasonable as measured according to the criteria set forth in Section 33(c) of the Act.

(See Sangamo Construction Company v. Pollution Control Board, 27 Ill. App. 3d 949, 953, 328 N.E.2d 571, 574-575 (4th Dist. 1975) (Section 33(c) factors are to be considered not only for determining whether there has been a violation based on unreasonable interference, but also before a violation based on injury to health can be found); Joseph T. Enders v. Village of Glendale Heights, (April 14, 1977), PCB 75-283, slip op. 3 (sets forth the four-part test for finding unreasonable interference from odor and notes that it would be essentially the same for injury to health).)

The uncontested evidence demonstrates that there is an odor and that M'Orr Pork's confinement and lagoon are the sources of the odor. (See IEPA v. Maggie Bell Hicks, (August 23, 1979), PCB 78-150, slip op. 3 (in finding a violation of Section 9(a) of the Act due to odor from a hog operation, the Board looked to testimony regarding the ability of witnesses with farm backgrounds to distinguish hoglot odor and the effect of wind direction on the odor in finding the hoglot a source of the odor at issue).) Thus, the remaining questions are whether the odor has caused an injury to health or an interference with the enjoyment of

life or property and, if so, whether such injury or interference was unreasonable in light of the Section 33(c) factors. The Board shall address these questions in turn.

Injury to Health. As noted in the Summary of Evidence, various witnesses stated that the odors have caused skin and other irritations, respiratory problems and nausea. However, complainants did not present any medical or scientific testimony demonstrating that the odors are the cause of these conditions.

Without medical or scientific testimony of causation, the Board cannot find that complainants have shown any injury to health from the odors. (See Draper and Kramer Incorporated v. Illinois Pollution Control Board, 40 Ill. App. 3d 918, 921-922, 353 N.E.2d 106, 109 (1st Dist. 1976) (reversing finding of air pollution violation based on injury to health when no scientific testimony introduced on causation); State of Illinois v. Forty-Eight Insulations, Inc., (September 30, 1976), PCB 74-480, slip op. 7) (finding no injury to health in air pollution case where no medical testimony submitted to verify or quantify the injury); IEPA v. W.F. Hall Printing Company, (September 15, 1977), PCB 73-30, slip op. 7 (finding no injury to health in air pollution case where IEPA “brought no expert testimony to link alleged physical ill effects to [respondent’s] emissions”).)

Interference with Enjoyment of Life or Property. As described in the Summary of Evidence, M’Orr Pork presented witnesses currently or recently living or working in or around Kinderhook who testified that the hog odors were not a problem for them. Nevertheless, there was no issue as to the credibility of complainants’ witnesses, who testified that these odors were affecting the enjoyment of their lives and property. (Tr. at 350.) Complainants’ evidence demonstrates that for a number of people, the hog odors have been a significant annoyance, often resulting in disruptions of their normal activities and routines around their own homes.

The Board has found that impacts of the sort described by complainants in this case constitute interference with enjoyment of life and property, necessitating that the Board then proceed to apply the Section 33(c) factors to determine if such interference was unreasonable. For example, in W.F. Hall Printing Company, the Board found an interference from odors had been established based on testimony of certain citizens about not being able to use the yard or to invite guests, being forced to move indoors and having to use air conditioners or keep windows closed: “Although not all witnesses were equally affected and some were not affected at all, the interference was sufficient to require further analysis as to reasonableness.” (W.F.Hall Printing Company, PCB 73-30, slip op. 6-7.)

Accordingly, the Board finds that complainants have established that the odor from the confinement and lagoon has interfered with the enjoyment of life and property.

Unreasonable Interference with Enjoyment of Life or Property. The remaining issue is whether the odors from the hog confinement and lagoon have unreasonably interfered with the enjoyment of life or property. Whether an interference is unreasonable is determined by reference to the criteria set forth in Section 33(c) of the Act. (See Incinerator, Inc., 59 Ill. 2d

at 296, 319 N.E.2d at 797; Wells Manufacturing Company v. Pollution Control Board, 73 Ill. 2d at 226, 233, 383 N.E.2d at 148, 151 (1978).) Section 33(c) reads as follows:

In making its orders and determinations, the Board shall take into consideration all the facts and circumstances bearing upon the reasonableness of the emissions, discharges, or deposits involved including, but not limited to:

1. the character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people;
2. the social and economic value of the pollution source;
3. the suitability or unsuitability of the pollution source to the area in which it is located, including the question of priority of location in the area involved;
4. the technical practicability and economic reasonableness of reducing or eliminating the emissions, discharges or deposits resulting from such pollution source; and
5. any subsequent compliance. (415 ILCS 5/33(c).)

Complainants have the burden of proving, by a preponderance of the evidence, a “substantial interference” with the enjoyment of life or property, excluding “trifling inconvenience, petty annoyance and minor discomfort.” (Processing and Books, Inc. v. Pollution Control Board, 64 Ill. 2d 68, 77, 351 N.E.2d 865, 869 (1976) (in part quoting from Incinerator, Inc., 59 Ill. 2d at 297, 319 N.E.2d at 797).) Complainants are not obligated to introduce evidence on each of the Section 33(c) factors. (See Processing and Books, Inc., 64 Ill. 2d at 75-77, 351 N.E.2d at 869; Peter Arendovich v. Koppers Company, (February 8, 1990), PCB 88-127, slip op. 5.) Proof as to the Section 33(c) factors remains M’Orr Pork’s burden “to the extent that a factor is not a necessary part of Complainants’ burden as to unreasonableness.” (W.F. Hall Printing Company, PCB 73-30, slip op. 2, n. 3 (citing Processing and Books, Inc., 64 Ill. 2d at 68, 351 N.E.2d at 865 (1976).) Furthermore, the Board need not find against M’Orr Pork on each of the Section 33(c) factors to find a violation. (See Wells Manufacturing Company, 73 Ill. 2d at 233, 383 N.E.2d at 151.)

The Board now considers each of the enumerated Section 33(c) factors in determining whether M’Orr Pork’s interference was unreasonable.

- (1) The character and degree of injury to, or interference with the protection of the health, general welfare and physical property of the people.

As noted in the Summary of Evidence, complainants testified that the odors compel them to close their windows and run their air conditioners and preclude them from sitting, walking, gardening, grilling and eating outside and from entertaining. Complainants also kept separate diaries or logs over varying periods of time to document the odor problem. These logs showed that there was bad hog odor on approximately 38% to 63% of the days over the time during which complainants kept these logs. Moreover, two Pike County deputy sheriffs, a former IEPA livestock waste consultant and other residents testified that they smelled the odor and found it offensive. (Tr. at 54-55, 61, 65, 69-72, 91-92, 106-107.) Complainants claim that this and other proof demonstrates that M'Orr Pork is causing air pollution. (Comp. Br. at 3.)

M'Orr Pork argues that complainants are "ultra sensitive" and have exaggerated the existence of the odor from M'Orr Pork's facility. (M'Orr Pork Br. at 16.) In support of this claim, M'Orr Pork relies on the testimony of several witnesses who live or work near the confinement and lagoon who testified that the odors were not severe. (M'Orr Pork Br. at 15-16.) M'Orr Pork also notes that there were discrepancies in testimony regarding the elevation of the confinement and lagoon in relation to Kinderhook to the south, as well as discrepancies between the odor logs. (M'Orr Pork Br. at 2-4.) In addition, M'Orr Pork argued that there was no evidence that property values have declined in Kinderhook, and noted that several witnesses testified that property values in Kinderhook have been steady or increasing. (M'Orr Pork Br. at 4-6.)

The Board finds that there was insufficient evidence that the odors have had an adverse effect on the value of complainants' property, or property values in Kinderhook. For the following reasons, however, the Board does find the character and degree of interference to weigh in favor of complainants.

First, M'Orr Pork's odor emissions "need not . . . be unbearable in order to constitute a violation of Section 9(a)." (W.F. Hall Printing Company, PCB 73-30, slip op. 13.) The Board has held that interferences similar to those described by complainants are "severe." (Forty-Eight Insulations, Inc., PCB 74-480, slip op. 7-9) (for example, odor entered residential dwellings, resulted in closing of windows and purchase of air conditioner, and interfered with hanging of clothes outside, gardening, eating outside, entertaining outside and children being outside.) In Maggie Bell Hicks, for example, odors from a hog operation led to interference with gardening, complaints from guests, and people closing their windows and using air conditioning more often and having to wash clothes to remove the odor. (See Maggie Bell Hicks, PCB 78-150, slip op. 4.) The Board held that the hog odors were an unreasonable interference in violation of Section 9(a). See id. In another odor case, IEPA v. Wheaton Sanitary District, (June 6, 1975), PCB 74-351, slip. op., where unreasonable interference was found from sewage treatment plant odors, the Board described the approximately six month period during which the odors continued intermittently as "a long period of time." (Id., slip op. 2.)

Second, the fact that some of the witnesses who live or work in the area have not been affected by the odor is not fatal to complainants' claim. Some of the difference in the reaction

of the various witnesses to the odor may be explained by the different conditions under which witnesses have been exposed to odors. For example, the odors appear to be worse in the evening. (Tr. at 19, 27-28, 117-118, 188.) Ms. Fee, the high school physical education teacher who testified that the odors did not bother her, does not typically conduct any outdoor school activities in the evening. In addition, it appears that often there is no wind, allowing the odor to follow a draw from north to south (Tr. at 19, 132), which may explain why the Deans, M'Orr Pork's neighbors to the north, have not had a problem with odors.

Even if not all of the differences in reaction to the odors can be so explained, the Board has noted that interferences of the sort described by complainants "are the result of subjective responses to the odor." (Forty-Eight Insulations, Inc., PCB 74-480, slip op. 8) (Board found unreasonable interference in violation of Section 9(a) of the Act.) In this case, there was no issue as to complainants' credibility or opportunity to perceive the effects of the odor, and their observations were corroborated by others.

In a similar case, the Village of Matteson filed a complaint with the Board against an outdoor amphitheater, alleging that excessive noise was interfering with the lives and activities of some of its residents. (See Discovery South Group, Ltd. v. Pollution Control Board, 275 Ill. App. 3d 547, 550, 656 N.E.2d 51, 54 (1st Dist. 1995).) The Board found the amphitheater in violation of the prohibitions in the Act and Board regulations against the emission of sound beyond the boundaries of one's property "that unreasonably interferes with the enjoyment of life or with any lawful business or activity." (Id., 275 Ill. App. 3d at 550-551, 656 N.E.2d at 54-55 (referring to Section 24 of the Act and 35 Ill. Adm. Code 900.101, 900.102).) In finding the violations, the Board relied on the testimony of certain citizens of Matteson that the noise emissions from the amphitheater interfered with the enjoyment of life, even though some residents testified that they were not bothered by the noise. (See id., 275 Ill.App.3d at 551, 554, 656 N.E.2d at 55, 57.) Though the amphitheater argued on appeal that Matteson's witnesses were "not a representative sampling because they were 'hypersensitive' to noise," the appellate court upheld the Board's finding of violation, stating as follows:

[T]o show "unreasonable interference" Matteson was not required to show that all of its citizens were affected or that those affected were affected to the same degree. Matteson merely had to show that noise emissions from the Theater caused unreasonable interference with the enjoyment of life for some of its residents. This, Matteson did. (Id., 275 Ill. App. 3d at 544-555, 656 N.E.2d at 56, 57.)

Likewise here, to establish unreasonable interference, complainants are not required to show that all residents were affected by the hog odor or that those affected were affected to the same degree.

Accordingly, the Board finds the character and degree of interference with general welfare and physical property from M'Orr Pork's hog odors weighs in favor of complainants.⁷

(2) The social and economic value of the pollution source.

The pollution source at issue is M'Orr Pork's hog confinement and lagoon. In examining the value of a pollution source, the Illinois Supreme Court has looked to the number of persons employed by the defendant and whether the defendant is an important supplier to a particular market. (See Wells Manufacturing Company, 73 Ill. 2d at 235-236, 383 N.E.2d at 152.) Similarly, the Board has looked to such factors as the number of employees at a facility, total wages and taxes paid by a respondent, its charitable contributions and its percentage of the market for a given product and whether it is necessary to maintain an adequate supply. (See Koppers Company, PCB 88-127, slip op. 6; Forty-Eight Insulations, Inc., PCB 74-480, slip op. 9.)

There is very little evidence in the record regarding the social and economic value of the confinement and lagoon. David Orr stated that the confinement was installed to "get more efficient in our livestock production" (Tr. at 156), but no information is provided to substantiate any improved efficiency, or enhanced income or market role. M'Orr Pork provided no information about whether the new facilities have resulted in additional jobs, wages or property taxes.

The Board acknowledged the importance of the livestock industry in its regulations on agriculture related pollution at 35 Ill. Adm. Code Subtitle E:

An adequate supply of healthy livestock is essential to the well-being of Illinois citizens and the nation. They provide the daily sources of meat, milk and eggs. Their efficient, economic production must be the concern of both producers and consumers if we are to have a continued abundance of high quality, wholesome food and of other livestock products at reasonable prices. (35 Ill. Adm. Code 501.102(a).)

While the economic and social value of the livestock industry to the State of Illinois is well recognized, M'Orr Pork submitted very little evidence on the value of its particular facilities. The Board finds that M'Orr Pork's facilities have some social and economic value. However, this Section 33(c) factor weighs only slightly in M'Orr Pork's favor.

(3) The suitability or unsuitability of the pollution source to the area, including priority of location.

As noted above, the confinement and lagoon are in an area zoned by Pike County for such uses and have not negatively impacted property values, sales or new

⁷ This finding on interference is consistent with a recent finding of a court in another state regarding hog odor under a nuisance theory. (See Weinhold v. Wolff, 555 N.W.2d 454. 1996 Iowa Sup. Lexis 423 (1996).)

construction in the area. However, these indicia in favor of M’Orr Pork are counter-balanced by M’Orr Pork’s failure to be sufficiently mindful of the nearby residents in Kinderhook. The Board has found that an industrial area may present a suitable location for an industrial use, but only for industrial uses which are compatible with nearby residential and commercial uses. (See Forty-Eight Insulations, Inc., PCB 74-480, slip op. 9.) Similarly, in a case involving noise from a nightclub located in an area zoned for both commercial and residential uses, the Board found that “the establishment of a nightclub in this area is suitable so long as the residential aspect of the zoned area is taken into consideration and recognized by the commercial use of the area.” (Dennis Manarchy v. JJJ Associates, Inc., (July 18, 1996), PCB 95-73, slip op. 13.) Likewise, in the instant case, despite proper zoning and the lack of negative impact on the real estate market, use of the confinement and lagoon must be compatible with nearby residential uses.

M’Orr Pork’s reliance on the Orr family hog operations having been in the Kinderhook area for 24 years as establishing priority of location is misplaced. (M’Orr Pork Br. at 17.) Construction of the confinement and lagoon appears to have begun in March of 1994 and to have been finished in June or July of 1994, with hogs being moved into the confinement in June or July of 1994 prior to finishing construction. (Tr. at 179, 195-196.) The intrusive odors from these sources were present beginning in the spring of 1995.

The Board has held that a respondent’s priority of location in an area is measured from the point at which its facility becomes a “source of offensive odors.” (Wheaton Sanitary District, PCB 74-351, slip op. 5 (sewage treatment plant allegedly located at site since at least the 1920’s did not have priority of location regarding offensive odors that arose in 1974 from a malfunction).) Complainants have lived in Kinderhook for approximately 54, 27, 29 and 51 years each. Accordingly, M’Orr Pork’s confinement and lagoon do not have priority of location.⁸

Based on the foregoing, the Board finds that the suitability of M’Orr Pork’s confinement and lagoon to the area, especially given the close proximity of residential uses, has been diminished in light of the way they have been operated. Accordingly, the Board will not weigh this Section 33(c) factor in either side’s favor.

(4) The technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from the pollution source.

In considering this Section 33(c) factor, the Board must determine whether technically practicable and economically reasonable means of reducing or eliminating odor emissions from the confinement and lagoon were readily available to M’Orr Pork. (See Incinerator, Inc., 59 Ill. 2d at 298, 319 N.E.2d at 798; Sangamo Construction Company, 27 Ill. App. 3d at 954-955, 328 N.E.2d at 575 (noting that the Board found respondent had installed devices to

⁸ The Board notes that complainants even have priority of location over the Orr family hog operation dating back 24 years.

reduce emissions over several years, “but that such actions should have been taken when the plant was first erected”); Forty-Eight Insulations, PCB 74-480, slip op. 10.)

As set forth in the Summary of Evidence, it is uncontested that M’Orr Pork has taken a number of steps in an attempt to mitigate the effects of odor from its confinement and lagoon. These measures included the planting of corn to act as a filter and fast-growing trees to act as a windbreak, the use of two additives in the lagoon, more frequent draining of waste to the lagoon from the confinement’s shallow gutter system, extending the drainage tube below the lagoon surface and the use of two additives in the hog feed.

As M’Orr Pork has already voluntarily adopted each of the measures described above, the Board finds that these measures are technically practicable and economically reasonable. Moreover, there is no indication in the record that these practices could not reasonably have been implemented earlier. Accordingly, the Board will weigh this Section 33(c) factor in favor of complainants.

(5) Any subsequent compliance.

The issue for the Board in examining this factor is whether M’Orr Pork has subsequently come into compliance with the requirements allegedly violated. (See Dennis Manarchy, PCB 95-73, slip op. 13.) The Board has found that M’Orr Pork has implemented numerous measures designed to reduce odors from its facilities, but there is evidence that the hog odor problem persisted in Kinderhook as of the time of the hearing. Thus, while there have been attempts at compliance, there is no evidence in the record that these efforts had been sufficient to result in actual compliance at the time of the hearing. Accordingly, the Board will weigh this Section 33(c) factor in favor of complainants.

Determination of Violations. While the confinement and lagoon have some social and economic value, they are causing substantial interference and not merely petty annoyance. (See Koppers Company, PCB 88-127, slip op. 6 (significant social and economic value is “diminished by the continuing distress [respondent] has caused to its citizen neighbors” from odor emissions.) In addition, there were a number of technically practicable and economically reasonable odor control measures that M’Orr Pork did not implement until well after the facilities were built. Furthermore, the evidence shows that odor remained a problem at the time of the hearing even though M’Orr Pork had implemented some odor control measures. After considering the record in light of the Section 33(c) factors, the Board finds that M’Orr Pork’s hog confinement building and waste lagoon have caused odor so as to unreasonably interfere with the enjoyment of life and property, which constitutes air pollution in violation of Section 9(a) of the Act.

The Board also finds that M’Orr Pork violated Section 501.402(c)(3) of the Board regulations. That provision requires such livestock facilities to practice “[a]dequate odor control methods and technology . . . so as not to cause air pollution.” (35 Ill. Adm. Code 501.402(c)(3).) While the mere detection of odor does not alone constitute air pollution, the record demonstrates that the interferences in Kinderhook resulting from the hog odor go well beyond the mere “detection of such odor.” (35 Ill. Adm. Code 501.102(d).) Moreover, the

“construction, establishment and operation of livestock management facilities and livestock waste-handling facilities without environmental planning and safeguards . . . causes, threatens or allows air pollution” (35 Ill. Adm. 501.102(d).) For the reasons provided above, the Board finds M’Orr Pork in violation of Section 501.402(c)(3) because it did not practice “[a]dequate odor control methods and technology” so as to prevent air pollution from its confinement and lagoon operation.

REMEDY

Having found M’Orr Pork in violation, the Board must again consider the Section 33(c) factors in determining the appropriate remedy. (See Forty-Eight Insulations, Inc., PCB 74-480, slip op. 8, 13.) The Board’s findings as to character and degree of interference, social and economic value, suitability of location and subsequent compliance are the same for the remedy as for the determination of a violation. As for technical practicability and economic reasonableness of reducing or eliminating emissions, the question in fashioning a remedy, in contrast to determining a violation, is not what could M’Orr Pork have reasonably done to reduce emissions, but rather “what is reasonable to require [M’Orr Pork] to do now” to reduce its odorous emissions so as to stop the unreasonable interference. (Forty-Eight Insulations, Inc., PCB 74-480, slip op. 10 (emphasis in original).)

The Board will decline to order M’Orr Pork to relocate its operations, as complainants have requested. (Complaint at 4.) David Orr testified that the confinement was placed as far away as possible from Kinderhook’s boundary to the south. There is no indication in the record that there is a more desirable placement for the confinement and lagoon at this property. Presumably then, complainants desire that these facilities be relocated to a different property entirely.

The only cost information on the confinement or lagoon in the record appears to be for the confinement building itself, namely a \$60,000.00 cost estimate in the Pike County construction permit application. Thus, besides the potential loss of its investment in the facilities at issue, any construction of a new confinement and lagoon at another property could presumably cost M’Orr Pork approximately \$60,000.00 along with construction costs for the lagoon. As there is no indication in the record that M’Orr Pork owns other properties which would be more suitable for these facilities, M’Orr Pork presumably would also face the additional costs of acquiring or renting other real estate, in addition to potential costs of business disruption.

While it may be technically practicable to relocate the confinement and lagoon to a different site, the Board finds that it is not economically reasonable to order such relocation at this time. (See Dorothy L. Hoffman v. City of Columbia, (October 17, 1996), PCB 94-146, slip op. 19) (the Board refused to order a city to relocate its maintenance facility, finding the \$150,000.00 cost associated with relocation to be economically unreasonable in light of the availability of reasonable alternative options for controlling the facility’s noises which were causing the unreasonable interference.) Such a drastic remedy is especially unwarranted in

light of the possibility that M'Orr Pork's odor mitigation efforts and additional measures may quickly and permanently put an end to air pollution from these odors.

Thus, the Board must consider whether there are other alternatives that may reduce odors from the facility that are both technically practical and economically reasonable. One option would be to simply wait for the measures that have been implemented to take full effect. As stated in the Summary of Evidence, the Austrees had not yet grown to their full height and the lagoon's bacteria may become more efficient at odor reduction over time. In addition, aside from investigating longer-term tree plantings, both Dr. Campbell and Dr. Funk testified that they had no additional recommendations to reduce odors from these facilities. (Tr. at 291, 310, 318-320.)

The Board notes, however, that the conclusions of Dr. Campbell and Dr. Funk appear to be preliminary. They visited the confinement and lagoon only once (Tr. at 291, 299, 307) and there is no evidence that either surveyed the literature and undertook a formal study to determine whether there may be other alternatives, and if so, if those alternatives were technically practical or economically reasonable.

In addition, as set forth in the Summary of Evidence, there was testimony regarding other odor control measures M'Orr Pork might implement, such as planting supplemental trees, covering the lagoon, installing an aerobic lagoon, redirecting the exhaust fans and using another lagoon additive. However, there is insufficient information in the record on (1) when and where the supplemental trees should be planted, (2) the economic reasonableness and technical practicability of covering the lagoon, (3) whether it is economically reasonable and technically practicable to convert the current lagoon into an aerobic lagoon, (4) whether and how the confinement's exhaust fans should be redirected and (5) whether another additive for the lagoon may be more effective.

The record also does not reveal whether M'Orr Pork has properly implemented all of the odor abatement measures. For example, the Micro-Aid instructions call for weekly use in the lagoon while M'Orr Pork was using it only monthly. (Tr. at 166; M'Orr Pork Exh. 6.) The instructions also indicate that the product can be used in confinement buildings as well, but there is no evidence M'Orr Pork is using it or a similar product in the confinement. (M'Orr Pork Exh. 6.)

Based on this record, the Board cannot find that there are no additional odor control measures that M'Orr Pork could practically and economically use. At the same time, however, the record does not contain enough information for the Board to order that any specific additional measure be employed. In cases in which there is not enough information in the record for the Board to order specific controls, the Board has often issued interim opinions. In an interim opinion, the Board may order respondents to evaluate emission control options and report the findings by a date certain, after which the Board may issue a final opinion and order requiring respondent to cease and desist from future violations and to implement certain control measures. The Board retains jurisdiction until it issues a final order in the matter. (See, e.g., Scott and Karen Thomas v. Carry Companies of Illinois, (August 5, 1993), PCB

91-195, slip op. 19 and (May 19, 1994), PCB 91-195, slip. op. 3; Koppers Company, PCB 88-127, slip op. 7-8 and (September 13, 1990), PCB 88-127, slip op. 2.)

The Board finds this case appropriate for an interim order. Accordingly, the Board will issue an order directing M'Orr Pork to have a qualified, independent individual or firm conduct an evaluation of, and prepare a report of the evaluation on, additional methods for quickly and permanently abating odor from the confinement and lagoon, including, but not limited to, those additional methods mentioned in this interim opinion. The evaluation report must also include analysis of (1) any additional odor control methods described in "Control of Manure Odors," ASAE EP379.1 (December 1986)⁹ and (2) any additional odor-controlling changes to M'Orr Pork's practices and operations, not merely odor control technologies or products.

Each additional odor control method in the evaluation shall be assessed for its technical practicability and economic reasonableness, and the results of the assessment shall be set forth in the evaluation report. In addition, the evaluation report must determine whether M'Orr Pork is correctly implementing each of the odor abatement measures currently being used.

The evaluation report must include an assessment of whether any recommended additional odor control measures should be used in lieu of or along with M'Orr Pork's current measures. The evaluation report must also set forth in its conclusions all recommended odor control measures, including any measures currently used by M'Orr Pork, that M'Orr Pork could employ to abate odor so as to eliminate the unreasonable interferences. The evaluation report must also include (1) a schedule of when any newly recommended odor control measures could be initially implemented and, as applicable, when and/or how often each of the recommended odor control steps (i.e., any newly recommended and currently used measures) could be taken by M'Orr Pork and (2) an estimate of when the odor should be abated as a result of each odor control measure or combination of measures.

The Board will retain jurisdiction in this case until it issues a final order in this matter. M'Orr Pork must file the evaluation report with the Board and deliver a copy thereof to each of the complainants no later than May 20, 1997. Complainants shall have an opportunity to respond to the evaluation report within 30 days of its filing with the Board. Within 30 days of the filing of the evaluation report with the Board, either party may file a motion with the Board to have a hearing on odor abatement measures. After the filing of the evaluation report and any response thereto and the holding of any such hearing, the Board will issue a final opinion and order. In the meantime, the Board encourages M'Orr Pork to take any and all lawful measures it deems appropriate to minimize its hog odors. The Board's final opinion will address whether any civil penalties will be imposed upon M'Orr Pork in this matter, and if so, in what amount. In addition, the final opinion will address whether other relief may be appropriate.

⁹ "Control of Manure Odors" is incorporated into the Board's 35 Ill. Adm. Code Subtitle E regulations at 35 Ill. Adm. Code 501.200. It is available from the American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659 (616-429-0300).

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

ORDER

- 1) The Board finds that M'Orr Pork, by allowing the emission of odor from its hog confinement and lagoon resulting in unreasonable interference with the enjoyment of life and property, has caused air pollution in violation of Section 9(a) of the Act and the Board's regulations at 35 Ill. Adm. Code 501.402(c)(3).
- 2) M'Orr Pork is hereby ordered to do the following:
 - a) M'Orr Pork shall have a qualified, independent individual or firm conduct an evaluation of, and prepare a report of the evaluation on, additional methods for quickly and permanently abating odor from its confinement and lagoon, including, but not limited to, (i) planting supplemental trees, (ii) covering the lagoon, (iii) converting the current lagoon into an aerobic lagoon, (iv) redirecting the confinement's exhaust fans, (v) using another additive in the lagoon and (vi) using an additive in the confinement.
 - b) The evaluation report shall also include analysis of (i) any additional odor control methods described in "Control of Manure Odors," ASAE EP379.1 (December 1986) and (ii) any additional odor-controlling changes to M'Orr Pork's practices and operations, not merely odor control technologies or products.
 - c) Each additional odor control method in the evaluation shall be assessed for its technical practicability and economic reasonableness, and the results of the assessment shall be set forth in the evaluation report.
 - d) The evaluation report shall determine whether M'Orr Pork is correctly implementing the following odor abatement measures it is currently using: (i) the corn; (ii) the Austrees; (iii) the lagoon additive(s); (iv) the draining of waste to the lagoon from the confinement's shallow gutter system; (v) the drainage tube extension into the lagoon and (vi) the feed additives.
 - e) The evaluation report shall include an assessment of whether any recommended additional odor control measures should be used in lieu of or along with M'Orr Pork's current odor abatement measures.
 - f) The evaluation report shall set forth in its conclusions all recommended odor control measures, including any measures currently used by M'Orr Pork, that M'Orr Pork could employ to abate odor so as to eliminate the unreasonable interferences.

- g) The evaluation report shall include (i) a schedule of when any newly recommended odor control measures could be initially implemented and, as applicable, when and/or how often each of the recommended odor control measures (i.e., any newly recommended and currently used measures) could be taken by M'Orr Pork and (ii) an estimate of when the odor should be abated as a result of each odor control measure or combination of measures.
 - h) M'Orr Pork shall file the evaluation report with the Board and deliver a copy thereof to each of the complainants no later than May 20, 1997.
- 3) Complainants may file with the Board a response to the evaluation report. Any such response by complainants must be filed within 30 days of the filing with the Board of the evaluation report.
 - 4) Within 30 days of the filing of the evaluation report with the Board, either M'Orr Pork or complainants may file a motion with the Board to have a hearing on odor abatement measures.

IT IS SO ORDERED.

Board Member R. Flemal dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above interim opinion and order was adopted on the ____ day of _____, 1997 by a vote of _____.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board