

ILLINOIS POLLUTION CONTROL BOARD
April 26, 1979

ILLINOIS ENVIRONMENTAL PROTECTION)
AGENCY,)
)
Complainant,)
)
v.) PCB 77-188
)
JOHN BURROWS and GEORGE W. HART,)
JR., d/b/a HART-BURROWS' PIG)
PONDEROSA,)
)
Respondents.)

Ms. Ann L. Carr, Assistant Attorney General, appeared on behalf of the Complainant;
Mr. Philip M. Pollock, Attorney at Law, appeared on behalf of the Respondents.

OPINION AND ORDER OF THE BOARD (by Mr. Young):

This matter comes before the Board on a Complaint filed on July 11, 1977, by the Illinois Environmental Protection Agency against John Burrows and George W. Hart, Jr., d/b/a Hart-Burrows' Pig Ponderosa (Ponderosa). On September 27, 1977, the Agency submitted an Amended Complaint which alleged that between May 21, 1973, and continuing to the date of filing of the Amended Complaint, the Respondents operated their swine farm so as to discharge swine waste to the waters of Illinois in violation of Section 12(a) of the Environmental Protection Act and numerous provisions of Chapter 3: the Board's Water Pollution Rules. Hearings on this matter were held on December 1, 1977; December 2, 1977, and February 27, 1978.*

In a seven-count Amended Complaint, the Agency alleged that between May 21, 1973, and September 27, 1977, Respondents'

*For convenience in notation, the transcripts from the December 1 and 2, 1977, hearings will be cited as the "December Record," while the record of the February 27, 1978, hearing will be designated as the "February Record," since only the pages in the December transcripts are consecutively numbered.

swine farm operation caused, threatened or allowed the discharge of swine waste to an unnamed tributary of Ackerman Creek in violation of the Board's Water Pollution Rules of Chapter 3 and provisions of the Act as follows:

Count I charged that the discharges from Respondents' swine farm operation caused a nuisance and water pollution in violation of Section 12(a) of the Act.

Count II alleged that the discharges caused unnatural sludge or bottom deposits, floating debris, odor, unnatural plant or algal growth and unnatural color in violation of Rule 203(a) of Chapter 3: Water Pollution Rules and Section 12(a) of the Act.

Count III alleged that Respondents' discharge of swine waste caused the presence of less than 5.0 mg/l of dissolved oxygen in violation of Rule 203(d) of Chapter 3 and Section 12(a) of the Act.

Count IV alleged that Respondents' discharge of swine waste caused the presence of ammonia nitrogen in concentrations greater than 1.5 mg/l in the unnamed tributary of Ackerman Creek in violation of Rule 203(f) of Chapter 3 and Section 12(a) of the Act.

Count V alleged that Respondents' violation of Rules 203(a), 203(d) and 203(f) (ammonia nitrogen) water quality standards were also in violation of Rule 402 of Chapter 3 and Section 12(a) of the Act.

Count VI alleged that the discharge of swine waste contaminants to the unnamed tributary of Ackerman Creek was five times greater than the 4 mg/l BOD₅ and the 5 mg/l suspended solids effluent limitations for intermittent streams in violation of Rules 401(c) and 404(f) of Chapter 3 and Section 12(a) of the Act.

Count VII alleged that the swine waste contaminants to the unnamed tributary of Ackerman Creek was five times greater than the 400 per/100 ml fecal coliform effluent limitation in violation of Rules 401(c) and 405 of Chapter 3 and Section 12(a) of the Act.

The subject of this enforcement action concerns the Hart-Burrows' Pig Ponderosa (Ponderosa), a swine farm which has been operated by Mr. John Burrows and Mr. George Hart for seventeen years on a tract of land in Tazewell County near Morton, Illinois. The swine farm raises approximately 3,000 hogs per year from farrow to finish in a pathogen-free environment and has capacity for 4,000 hogs. To handle the

vast amounts of swine waste estimated at 735,000 gallons per year, the Ponderosa has constructed lagoons for storage of swine waste. The original lagoon, constructed in 1973, is about 225 feet by 90 feet and 10 feet deep. In November, 1977, the Ponderosa completed construction of a second lagoon and also finished building a 4-foot levee around the perimeter of the original lagoon. The second lagoon has about the same dimensions as the original lagoon, except that it is about 20 feet deep. The second lagoon was built to provide additional storage capacity for swine waste and to correct the overflow problems from the first lagoon. (December Record, 13-17, 45-47.)

Originating near the Ponderosa property is an unnamed intermittent stream which flows south along the eastern border of the swine farm into Ackerman Creek (also an intermittent stream) at a point upstream of a park district wildlife area and a scout campground and flows through several farms and near farm residences. Immediately downstream of the confluence between the unnamed tributary and Ackerman Creek is a farm owned and operated by Ernest and Sharon Phillips. The farm is approximately 900 feet upstream from the wildlife park district and the campground. The Phillips family moved onto this farm in August, 1972, and have raised small numbers of sheep, geese and feeder beef on their farm. Since 1973, the Phillips have registered numerous complaints with the Agency about the polluted condition of the Ackerman Creek. (December Record, 48, 58, 153, 169-70.)

During the first December hearing, Ernest and Sharon Phillips testified that each had observed swine waste present in the part of the Ackerman Creek which flows along the northern border of their farm. On or before July 2, 1974, Sharon Phillips noticed a dark, blackish-green substance in the stream. Ernest Phillips testified that he discovered that the stream contained deposits of dark grey hog waste with a very strong odor on July 3, 1974, and traced the discharge while on neighbor's property to the west fence of the unnamed tributary on Ponderosa property. The witness claimed that he observed a manure spreader running effluent out of the hose into the unnamed stream. On July 9, 1974, Ernest Phillips observed with binoculars after 9:00 p.m. movement of a "honey wagon" on Ponderosa property from a hog confinement area to the west fence of the tributary. (December Record, 78, 162-65, 177-81.)

After receiving a complaint from Sharon Phillips, Lawrence Eastep, a field inspector with the Agency conducted an on-site investigation on July 10, 1974, of the Ackerman Creek and its unnamed tributary. The investigation revealed that the waters

were clear in the Ackerman Creek upstream from the confluence with the unnamed tributary near location point A-1. However, waters flowing from the unnamed tributary near location point B-1 ran from gray to black with strong odors. Below the confluence near location point C-1 on Phillips' property, Mr. Eastep testified that the Ackerman Creek was septic and black. Near location point C-2, approximately 300 yards from the confluence at the western border of the Phillips' farm, the waters of Ackerman Creek were dark gray and turbid. (December Record, 194-97, see Exh. #6.)

During the field investigation, Mr. Eastep collected water samples from the unnamed tributary at B-1 and in the Ackerman Creek, upstream at A-1 and downstream at C-2. Analysis of the samples by the Agency's Region III laboratory in Peoria, Illinois revealed the following:

	A-1	B-1	C-2
Fecal Coliform (per 100 ml)	6,200	600,000	300,000
Ammonia Nitrogen (mg/l)	0	147	141
BOD (mg/l)	1	1,051	822
Suspended Solids (mg/l)	1	295	510

(See Exh. #1-A, 1-B and 1-C.)

In a conversation with Mr. Eastep on July 10, 1974, Mr. Hart stated that the discharge was due to a misunderstanding by his employees who dumped the swine waste near the unnamed tributary. On July 24, 1974, Mr. Eastep returned to collect water samples and discovered similar conditions in the Ackerman Creek. Upstream from the confluence with the unnamed tributary, Mr. Eastep observed that the stream was clear, while the unnamed tributary contained black, odorous, septic material. At a point 200 to 300 yards from the confluence, Mr. Eastep discovered that the stream was gray and turbid with septic bottom deposits. During this field investigation, Mr. Eastep collected water samples in the Ackerman Creek at A-1 and near C-1, twenty feet downstream from the confluence with the unnamed tributary. Dissolved oxygen analysis conducted by the Agency's Region III laboratory indicated a 7.6 mg/l value for upstream waters and a 3.7 mg/l dissolved oxygen value for water downstream from the confluence with the unnamed tributary (December Record, 204-13, Exh. #2-A, 2-B).

During the first hearing, the Phillips testified that they observed with binoculars a honey wagon in use on December 24, 1974, after 9:00 p.m. on the Ponderosa property backed up

to the southeast portion near the unnamed tributary. Afterward, Mr. Phillips testified that he discovered deposits of black, grayish waste with a strong odor which was characterized as swine waste (December Record, 115-16, 140, 146, 166-67).

In other evidence, Lyle Ray, a specialist with the Agency, conducted an investigation in the vicinity of Ackerman Creek on August 12, 1976, after receiving a complaint from Sharon Phillips. During the field investigation, Mr. Ray testified that he discovered waste deposits coming from the unnamed tributary and he followed this stream to the Ponderosa swine farm where he noticed that swine wastes were leaking from its lagoon. On this occasion, Mr. Ray met with Mr. Hart and informed him of the discharge from the lagoon. Mr. Hart responded that the overflow was caused by muskrats boring holes in the lagoon and that he would see to it that the hole was properly patched within 24 hours. Mr. Hart also related that he was considering raising the levee of the first lagoon and constructing a second lagoon. (December Record, 43-46, 283-84.)

During this investigation, Mr. Ray collected water samples of the overflow from the Ponderosa swine waste lagoon, samples of lagoon drainage to the unnamed stream, and from Ackerman Creek at location points A-1 and C-2. Analysis from the Region III laboratory indicate the following results:

	A-1	Lagoon Overflow	Drainage to Trib.	C-2
Fecal Coliform (per 100 ml)	5,500	90,000	10,000	80,000
Ammonia Nitrogen (mg/l)	20	410	11	107
BOD (mg/l)	3	630	350	13
Dissolved Oxygen (mg/l)	6.7	--	0.0	2.9

On a return visit on March 11, 1977, to the Ackerman Creek, Mr. Ray noticed no significant change in water quality from his prior inspection. While upstream waters were found to be clear, the Ackerman Creek was gray and turbid approximately 1/8 mile downstream from the confluence with the unnamed tributary. Samples collected by Mr. Ray on this date and analyzed by the Region III laboratory indicated as before that drainage from the swine waste lagoon into the unnamed tributary caused or allowed water quality violations in the unnamed tributary and in the waters downstream from its confluence with the Ackerman Creek (December Record, 294-98, Exh. #8-A, 8-B, 8-C, 8-D).

In response to a complaint by Sharon Phillips, Mr. Ray returned to investigate the Ackerman Creek once again on May 12, 1977. Mrs. Phillips testified that she had to wade through waste deposits with swine odor in the Ackerman Creek to retrieve a lamb. Upon arrival, Mr. Ray testified that he made no formal inspection but did obtain water samples at location points A-1, C-1 and C-2 to quantify the water quality of the creek. Analysis from Region III laboratory revealed the following results:

	<u>A-1</u>	<u>C-1</u>	<u>C-2</u>
Fecal Coliform (per 100 ml)	260	300	300
Ammonia Nitrogen (mg/l)	.12	13.0	15.0
BOD (mg/l)	1.0	5	20
Dissolved Oxygen (mg/l)	7.1	6.8	12.8

(R. 76-77, 124-25, 156-58, 326, Exh. #10-A, 10-B, 10-C.)

On other occasions, particularly September 20, 1977, and November 23, 1977, Sharon Phillips testified that she had discovered blackish, gray waste in the creek which changed to a reddish color on the former date and a milky colored waste with a strong hog waste odor on the November date. (December Record, 117-20, 168.)

During the hearings, the Respondents questioned the abilities of Complainant's witnesses to identify and distinguish swine waste by its characteristic appearance and strong odor in the tributary or the Creek. The Respondents further challenged testimony of witnesses who traced the swine wastes to the Ponderosa property (December Record, 98-99, 156-58). The Board finds that these objections to the testimony of Complainant's witnesses go to the weight of the testimony and to the credibility of the witnesses which the Board has considered in light of the record and are not grounds for exclusion.

The Respondents also objected to the admissibility of photographs submitted by Mr. Ray concerning conditions in the Ackerman Creek vicinity which the Complainant offered as exhibits into evidence. Exhibit #4 depicted flow from the Ponderosa swine waste lagoon on August 12, 1976. Exhibits #7-C and 7-D showed the conditions of the waters in the Ackerman Creek upstream and downstream from the confluence with the unnamed tributary. Exhibits #9-A and 9-B were pictures of the main swine waste lagoon taken by Mr. Ray on March 16, 1977. After reviewing the record on this matter,

the Board will accept the photographs in Exhibit #4 with the captions revised to exclude conclusory remarks and will admit in evidence Exhibits #7-C and 7-D and Exhibits #9(A-J) as an accurate portrayal of conditions on the Ponderosa swine farm, in the unnamed tributary and in the Ackerman Creek. (December Record, 284-87, 312, 324.)

There was a great deal of discussion during the hearings concerning the Agency's right to conduct reasonable investigation on private property. Section 4(d) of the Act confers certain authority upon the Agency to:

(E)nter at all reasonable times upon any private or public property for the purpose of inspecting and investigating to ascertain possible violations of the Act or of regulations thereunder, or of permits or terms or conditions thereof, in accordance with constitutional limitations.

In this case, the Agency's field inspectors, Lawrence Eastep and Lyle Ray entered upon the Ponderosa property to collect samples, to investigate probable violations of the Act and regulations and to inform the owners of the Ponderosa of the water pollution problems disclosed by their investigations. The record indicates that the investigations were conducted in a professional manner and at a reasonable time.

In considering the evidence in light of the constitutional limitations, it is evident that there was probable cause for the Agency to suspect violations of the Act and the Board regulations to permit them on the Ponderosa property to conduct a reasonable investigation. Accordingly, the Board finds that the Agency inspectors had rightful authority to enter upon the Ponderosa swine farm pursuant to Section 4(d) of the Act. The invasion of privacy, if it can be said to exist at all, is abstract and theoretical. Air Pollution Variance Board of the State of Colorado v. Western Alfalfa Corporation, 416 U.S. 861, 865 (1974).

At the conclusion of Complainant's case-in-chief during the February hearing, the Respondents made a motion to dismiss each and every count of the Complaint. As grounds for this motion, the Respondents claimed that (1) the Complainant had not proved that pollutants in the Ackerman Creek came from the Hart-Burrows' property; (2) the Complainant had demonstrated an inadequate chain of custody for the water samples from collection to the Region III laboratory; (3) the Complainant had left one sample out in the sun in a car trunk for several hours where chemical changes in the sample could have occurred; and (4) the Complainant had denied the Respondents due process

by destroying the samples before the Respondents had an opportunity to have their own chemist test and analyze the samples. The Hearing Officer, pursuant to Procedural Rule 308, referred this motion to the Board. (February Record, 73-75.) After due consideration of these issues, the Board finds that the Respondents' grounds for dismissal basically relate to the proper weight to be given to the evidence presented by pointing out various weaknesses in the Complainant's case. Accordingly, the Respondents' motion is hereby denied.

After carefully evaluating the evidence in the record, the Board finds that Mr. John Burrows and Mr. George Hart, Jr., d/b/a Hart-Burrows' Pig Ponderosa between May 21, 1973, and September 27, 1974, have caused or allowed the discharge of swine waste into the unnamed tributary of Ackerman Creek in violation of Rules 203(a), 203(d), 203(f) (ammonia nitrogen), 402, 404(f) and 405 of Chapter 3: Water Pollution Regulations and Section 12(a) of the Environmental Protection Act.

The charges alleging violation of Rule 401(c) in Counts VI and VII of the Complaint will be dismissed. The reference to five times the numerical standard in Rule 401(c) establishes an exception to the averaging rule in Part IV of Chapter 3 for 24-hour composite samples. The rule is prescriptive and not prohibitive in nature. See R70-8, 3 PCB 401, 405, January 6, 1972.

In mitigation, the record indicates that three weeks prior to the first December hearing, Respondents completed construction of a second lagoon with dimensions of 225 feet by 90 feet by 20 feet with a total capacity for 1.2 million gallons of swine waste to control the discharge from the Hart-Burrows operation. Mr. Hart also testified that the Ponderosa had recently purchased a new liquid manure spreader which has a capacity of 3,200 gallons. (February Record, 140-43.)

Since the first lagoon was built, Mr. Hart testified that the Ponderosa had spent over \$18,000 in their waste management program. When broken down into line items, the Ponderosa spent approximately \$7,000 for the liquid manure spreader and approximately \$11,000 in the construction of the second lagoon in addition to costs for the four foot levee around the original lagoon. The record indicates that while construction on the second lagoon began in 1976, it was not completed until November, 1977, due to poor weather conditions and problems with the contractor. (February Record, 140-43.)

Although the Ponderosa believes that the current waste management program provides ample capacity for the Ponderosa swine farm operation and will eliminate the discharge problems to the unnamed tributary of the Ackerman Creek, the Agency is not so optimistic. During the February hearing, Mr. Lyle Ray

agreed that the second swine waste lagoon has provided additional capacity to remedy immediate problems, but Mr. Ray claimed that the Ponderosa lagoons could reach their design capacity if poor weather conditions in the spring or fall prevent use of the manure spreader. (February Record, 23, 35, 48-49, 140-43).

Accordingly, Mr. Ray submitted a proposed waste program for the Hart-Burrows operation which will be accepted as Exhibit #16 over the objection of the Respondents. In this proposal, Mr. Ray described how a small irrigation-type system could provide the Ponderosa waste management program with "somewhat more flexibility." Mr. Ray testified that a gated irrigation system with a capacity of 25 GPM if operated 4 hours a day for 45 days during the summer would remove approximately 270,000 gallons of liquid material from the lagoons. The witness stated that the application of this irrigation system as to a waste lagoon system is somewhat new for this area and possibly experimental in nature. Mr. Ray estimated that the cost of an irrigation of this type could range from \$5,000 to as much as \$15,000. (February Record, 30-35, 47, 55, Exh. #16.)

Other systems considered during the hearings which would not require new equipment, include a program which would make use of Ponderosa's new 3,200 gallon manure spreader 10 days in the spring and 10 days in the fall if weather permits (February Record, 61). Mr. Ray testified that if the Ponderosa would set aside 30 acres for knifing-in of liquid manure during the summer months, an irrigation program might be unnecessary (February Record, 50-51).

In defense of Complainant's allegations, the Respondents called three witnesses: Richard Seagraves and Clifford Nauman from the Moorman Feed Company and George Hart, Jr. Mr. Seagraves, a feed manager for 26 years, testified that he was quite familiar with the Hart-Burrows' swine farm as he is with many other swine operations in the area. Until the February hearing, Mr. Seagraves had never heard of a gated irrigation system or any used in a swine farm operation. The witness stated muskrats are a common problem for pits, pools and lagoons in this area and that it is illegal to kill or dispose of muskrats without a permit from the Department of Conservation. Mr. Seagraves testified that the Respondents' new lagoon was built with thick walls and that the levees were "a lot thicker than I had seen them made on any lagoon built in the last ten years."

Mr. Seagraves stated that most swine farm operations he visits do not have lagoons to store swine waste but merely pump the waste out of the pits under the confinement areas and spread directly on the field (February Record, 81-82, 97-99).

Respondents' second witness, Clifford Nauman, has been a feed salesman for 19 years with the Moorman Feed Company. Mr. Nauman stated that in the course of his business, none of the 20 swine customers have utilized a gated irrigation system (February Record, 117, 120).

In defense of the Ponderosa swine operation, George Hart stated that, "(T)here was never any swine waste dumped into any dry ditch on our farm since I have been in business. We have never deliberately or intentionally polluted any stream by dumping any waste into any creeks." (February Record, 145.)

Mr. Hart said that the Ponderosa's current waste management disposal system is now superior to the alternative irrigation system proposed by Mr. Ray. With the current investment in equipment, the Respondents do not anticipate potential runoff problems which might be generated by an irrigation system installed in clay soil on rolling ground. The witness believes that the swine waste would "have a greater tendency to get into the waterways of the stream through an irrigation system." In reference to the two large swine operations in the vicinity of the Ponderosa, Mr. Hart stated that the common experience of swine farmers is that if the manure is not knifed deep enough into the ground, there is a greater chance of direct runoff than if a thin layer were laid over a large area. (February Record, 152, 151.)

On those occasions that Mr. Ray discovered leaks in the lagoon berms, Mr. Hart testified that the holes were immediately cemented shut. Mr. Hart also stated that the Ponderosa has made arrangements to spread swine waste on pastureland during the summer approximately one mile away from the Ponderosa. (February Record, 155-56, 172.)

Section 33(c) of the Act requires the Board in making its determinations to consider and evaluate the degree of injury to the public, the social and economic value of the pollution source, the suitability of its location and the technical practicability and economic reasonableness of reducing and eliminating the pollution violation.

Discharges from the Ponderosa swine operation during the period of the Complaint were not isolated incidences. The record indicates that the Respondents have caused or allowed

obnoxious swine waste to be discharged into waters of this State which flow through farms, a park district wildlife area and a scout campground. Evidence in the record reveals that not all the discharges were the result of muskrat borings. While the Board recognizes that the Respondents have incurred expenses in an effort to prevent these discharges from occurring in the future, the Respondents' past record prior to the initiation of this action cannot be ignored.

The social and economic value of the Ponderosa swine farm as well as its suitability to the area is not questioned here. Mr. Nauman stated that the Ponderosa operates in a pathogen-free environment. The Ponderosa keeps its pens clean and hauls the manure to the lagoon (February Record, 123). The Board finds, however, that the fact that the Ponderosa is a well-run operation will not excuse the numerous violations of the Act and the water pollution regulations of the Board.

The testimony in the record indicates that compliance with the water pollution requirements of this State for a well-run swine farm operation is technically practical and economically reasonable.

In view of these findings, the Board will assess a penalty of \$3,000.00 for the violations of the Act and the Board Regulations found herein. The Respondents and the Agency shall evaluate the current waste management system of the Ponderosa swine farm to determine whether the program provides adequate storage for swine wastes and the means to spread the swine waste so as not to cause violation of the Act or Board Regulations. The Respondents shall cease and desist from further violations.

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

ORDER

1. Respondents, John Burrows and George W. Hart, Jr., d/b/a Hart-Burrows' Pig Ponderosa, is found to have caused or allowed the discharge of swine waste to an unnamed tributary of Ackerman Creek and waters of this State between May 21, 1973, and September 27, 1977, in violation of Section 12(a) of the Environmental Protection Act and Rules 203(a), 203(d), 203(f), 402, 404(f) and 405 of Chapter 3: of the Water Pollution Rules and Regulations.


2. Respondents, John Burrows and George W. Hart, Jr., d/b/a Hart-Burrows' Pig Ponderosa shall cease and desist violating Section 12(a) of the Environmental Protection Act and Rules 203(a), 203(d), 203(f) (ammonia nitrogen), 402, 404(f) and 405 of Chapter 3: Water Pollution Rules and Regulations.

3. Respondents, John Burrows and George W. Hart, Jr., d/b/a Hart-Burrows' Pig Ponderosa, shall pay a penalty of \$3,000.00 for the aforementioned violations within 35 days of this Order. Payment shall be by certified check or money order payable to:

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

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Opinion and Order were adopted on the 26th day of April, 1979, by a vote of 4-0.



Christan L. Moffett, Clerk
Illinois Pollution Control Board