

Approved: 2-5-97
Date

MINUTES OF THE HOUSE COMMITTEE ON ENVIRONMENT.

The meeting was called to order by Chairperson Steve Lloyd at 3:30 p.m. on January 29, 1997 in Room 526-S of the Capitol.

All members were present except: Rep. Kent Glasscock - excused

Committee staff present: Raney Gilliland, Legislative Research Department
Hank Avila, Legislative Research Department
Mary Ann Graham, Committee Secretary

Conferees appearing before the committee: Ellyn Sipp, Principal Auditor, Legislative Div. of Post Audit
James J. O'Connell, Secretary, KDHE
Ronald Hammerschmidt, Director of Environment KDHE
Karl Mueldener, Bureau Director KDHE

Others attending: See attached list

Chairman Steve Lloyd called the meeting to order at 3:30 p.m. He reviewed the committee agenda for next week, the week of February 3. He called the committee's attention to a public meeting scheduled for January 30 by the Kansas Wildlife and Parks Commission in Topeka. (See Attachment 1)

The Chairman recognized Rep. Don Myers, who had a bill introduction which would allow cardboard in construction and demolition landfills. Rep. Myers made a motion the bill be introduced, Rep. Dennis McKinney seconded. Motion passed.

The Chairman recognized Rep. Richard Alldritt, he had a bill introduction that legislation be drafted that would require public notification before the expansion or construction of confined animal feeding operations. Rep. Alldritt made a motion the bill be introduced, Rep. Eber Phelps seconded. Motion passed.

Chairman Lloyd welcomed Ellyn Sipp, Principal Auditor for Legislative Division of Post Audit, to the committee. Ms. Sipp briefed the committee on a Performance Audit Report, Reviewing the Department of Health and Environment's Efforts to Protect Water from Pollution Caused by Confined Livestock Feeding Operations. (See attachment 2) She called the committee's attention to a map, (page 4 of attachment 2) on Federal and State active permitted confined animal feeding operations, overlaid with a map of monitored streams affected by animal waste. She reviewed the audit report and she along with Ronald Hammerschmidt, Director of Environment, KDHE, answered questions raised by the committee.

The Chairman welcomed James J. O'Connell, secretary of KDHE. Secretary O'Connell spoke to the committee in response to the Performance Audit Report Reviewing the Department of Health and Environment's Efforts to Protect Water from Pollution Caused by Confined Livestock Feeding Operations.. His response was presented in two parts, General Comments and Overview, and Response to Recommendations. (See pages 43 through 49 of attachment 2) Discussion followed. Questions by the committee were answered by Secretary O'Connell along with Karl Mueldener, Bureau Director KDHE.

Chairman Lloyd thanked Secretary O'Connell, staff and Ellyn Sipp for their presentation.

The meeting adjourned at 5:30 p.m.

The next meeting is scheduled for February 3, 1997

HOUSE ENVIRONMENT COMMITTEE COMMITTEE
GUEST LIST

DATE: 1-29-97

NAME	REPRESENTING
Larry G. HESS	Kan. Dept. of Health + Envir.
Don Carlson	Kr. Dept. of Health & Environment
Allan Lipp	Post Audit
CHARLES JONES	SELF
Karl Muelder	KDHSE
Ron Hammerschmidt	KDHSE

PRATT -- The Kansas Wildlife and Parks Commission reminds conservationists of every stripe that on Jan. 30, they will conduct a public meeting in Topeka. The event will be held at the Ramada Inn and Tower, Lower Lounge, North Entrance, 420 SE Sixth Street in Topeka.

Highlighting the meeting will be a report on the Kansas Department of Wildlife and Parks' 1997 legislative agenda, Governor Graves' recommended budget, and the legal authority of state conservation officers, which has been limited by a recent attorney general's ruling.

The meeting begins at 1:30 p.m. Other discussion topics of the meeting include reports on the Kansas Nongame and Endangered Species Advisory Task Force, commission meeting expenses, future meeting scheduling, the waterfowl Harvest Information Program, Ducks Unlimited's Waterfowl Stamp, and a pheasant workshop.

A workshop session will cover use of lighted crosshairs for hunting; other legal equipment, taking methods, reports, tags, general provisions, seasons, bag limits, and permits concerning turkey, antelope, deer, and elk hunting; and annual camping permits. Workshop sessions help prepare for future regulatory action.

At 7 p.m., the commission will conduct a public hearing on the following proposed regulations:

- boating regulation modifications, including personal flotation device requirements; and
- non-resident furdealer license prices.

The public is encouraged to attend all sessions of the meeting and provide input as agenda items are discussed. Copies of the agenda and other information are available from John R. Dykes, Chairman of the Kansas Wildlife and Parks Commission, 512 SE 25th Ave., Pratt, KS 67124. The department will have an interpreter available for the hearing-impaired, if requested in advance. To request an interpreter, call 1-800-766-3777.

For more information, contact the chairman through the above address, or telephone (913) 722-3985.

The next Wildlife and Parks Commission meeting will be held Wednesday, March 26, at the Memorial Auditorium & Convention Center in Pittsburg.

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WILD VIDEO NO TURKEY

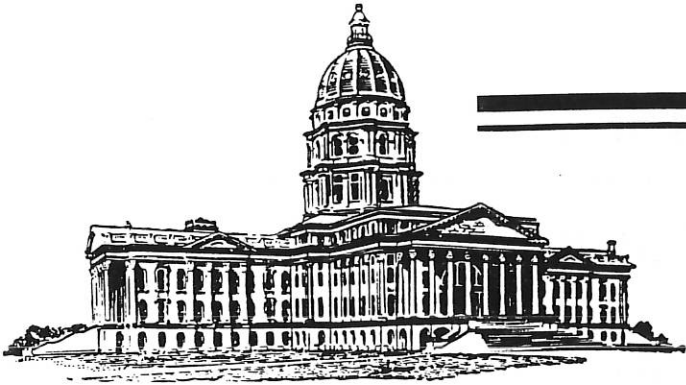
PRATT -- The return of the wild turkey to Kansas is one of the most remarkable wildlife comeback stories ever told. Now, everyone who thrills to the sight of a turkey in the wild or a gobble on the roost can relive that story through a video produced by the Kansas Department of Wildlife and Parks.

The Wild Turkey Story is a 44-minute video celebrating the wild turkey in Kansas. It chronicles the early stocking and transplanting efforts of the management program that made this amazing comeback possible. It also features magnificent video of wild birds and footage of actual trapping efforts. Although primarily a natural history movie, the video includes a few tips for the avid turkey hunter.

Learn how the wild turkey was reintroduced by the Kansas Department of Wildlife and Parks. Watch, listen, and be thrilled as you witness, close up, the natural history, research, and management of the most spectacular game bird in North America. This video is a must for all hunting and non-hunting turkey lovers.

To order a copy, send \$21.20 to Turkey Video, Kansas Department of Wildlife and Parks, 512 SE 25th Ave., Pratt, KS 67124. Or you can order a copy with Mastercard or Visa by phoning (316) 672-5911.

- 3 0 -



PERFORMANCE AUDIT REPORT

Reviewing the Department of Health and Environment's Efforts To Protect Water from Pollution Caused by Confined Livestock Feeding Operations

A Report to the Legislative Post Audit Committee
By the Legislative Division of Post Audit
State of Kansas

January 1997

*House Environment
1-29-97
Attachment 2*

Legislative Post Audit Committee

Legislative Division of Post Audit

THE LEGISLATIVE POST Audit Committee and its audit agency, the Legislative Division of Post Audit, are the audit arm of Kansas government. The programs and activities of State government now cost about \$7 billion a year. As legislators and administrators try increasingly to allocate tax dollars effectively and make government work more efficiently, they need information to evaluate the work of governmental agencies. The audit work performed by Legislative Post Audit helps provide that information.

We conduct our audit work in accordance with applicable government auditing standards set forth by the U.S. General Accounting Office. These standards pertain to the auditor's professional qualifications, the quality of the audit work, and the characteristics of professional and meaningful reports. The standards also have been endorsed by the American Institute of Certified Public Accountants and adopted by the Legislative Post Audit Committee.

The Legislative Post Audit Committee is a bipartisan committee comprising five senators and five representatives. Of the Senate members, three are appointed by the President of the Senate and two are appointed by the Senate Minority Leader. Of the Representatives, three are appointed by the Speaker of the House and two are appointed by the Minority Leader.

Audits are performed at the direction of the Legislative Post Audit Committee. Legislators or

committees should make their requests for performance audits through the Chairman or any other member of the Committee. Copies of all completed performance audits are available from the Division's office.

LEGISLATIVE POST AUDIT COMMITTEE

Senator Lana Oleen, Chair
Senator Anthony Hensley
Senator Pat Ranson
Senator Chris Steineger
Senator Ben Vidricksen

Representative Richard Alldritt
Representative Doug Mays
Representative Ed McKechnie
Representative Eugene Shore
Representative Dennis Wilson

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LEGISLATURE OF KANSAS
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January 17, 1997

To: Members, Legislative Post Audit Committee

Senator Lana Oleen, Chair
Senator Anthony Hensley
Senator Pat Ranson
Senator Chris Steineger
Senator Ben Vidricksen

Representative Richard Alldritt
Representative Doug Mays
Representative Ed McKechnie
Representative Eugene Shore
Representative Dennis Wilson

This report contains the findings, conclusions, and recommendations from our completed performance audit, Reviewing the Department of Health and Environment's Efforts to Protect Water from Pollution Caused by Confined Livestock Feeding Operations.

The report includes a number of recommendations for improving the Agricultural-Waste Regulatory Program. We recommend that the Department identify all facilities needing a permit, and incorporate its design standards into Kansas Administrative Regulations. We also recommend that the Department take a number of steps to ensure that confined-feeding operations operate according to laws and regulations. Finally, we recommend that the Legislature consider the Department's request for additional staff, and that the Department seek legislative support for adjusting registration and permit fees to help defray the costs of those staff.

We would be happy to discuss these recommendations or any other items in the report with any legislative committees, individual legislators, or other State officials.

Barbara J. Hinton
Legislative Post Auditor

EXECUTIVE SUMMARY
LEGISLATIVE DIVISION OF POST AUDIT

**Question 1: Have the Department of Health and Environment's
Actions to Permit, Monitor, and Regulate
Confined Livestock Feeding Operations
Been Sufficient To Protect Kansas Water from Pollution?**

The Department's design standards are less stringent than comparison states in two key areas. page 10
Kansas' "seepage" standard specifies that the liquid from the bottom of a lagoon can't seep into the ground by more than 1/4 inch per day. Six of the eight other states allow a seepage rate of less than that—generally 1/16 inch to 1/56 inch per day. Also, Kansas requires 100 feet between a waste-control facility and a well, while most other states have a variable standard based on the quality of the well's construction.

We found some significant problems with the Department's animal waste regulatory program. page 12
Although our reviews, testwork, and interviews showed the Department had adopted many good permitting, monitoring, and enforcement procedures in regulating animal wastes, they also showed the program had serious problems that weaken its effectiveness in protecting the State's water sources from pollution.

In 93% of the 41 cases we reviewed, the Department didn't follow its procedures or requirements for regulating animal waste-control facilities. page 14
The Department often allowed facilities to operate even though their permits had expired—often years before—or hadn't met all the requirements for obtaining a permit. For example, some facilities had never submitted required seepage tests to ensure lagoons wouldn't leak excessively. Other facilities didn't meet design standards or special permit conditions. In one case, a facility has operated for nine years after test results showed a waste lagoon could seep at more than 20 times the allowed standard if it hadn't sealed effectively. The Department has no way to identify facilities that may pose a significant water pollution potential and need to be regulated. In addition, in trying to address a large backlog of renewal permits, the Department is shortcutting some potentially important steps.

We also found the Department hadn't performed the required one-, two-, or three-year inspections for nearly half the facilities in our sample; one facility hadn't been inspected since 1973, and two others hadn't been inspected since the mid-to-late 1980s. The Department also inappropriately handled complaints more than 40% of the time. When inspections or complaint investigations uncovered violations of regulations,

Department staff rarely followed up to make sure those violations were corrected. The Department also didn't always take appropriate enforcement actions against operators with a history of repeated violations. In fact, the Department has only taken 13 formal enforcement actions since 1992.

Question 2: Does the Department Have Sufficient Staff and Regulatory Authority To Protect the State and Its Citizens from Pollution and Nuisances Caused by Feedlots, Dairies, And Confined-Feeding Operations?

The Department doesn't have enough staff to adequately protect the State's water from pollution caused by animal wastes produced by confined-feeding operations. page 26
The Department has eight full-time-equivalent field staff working in the agricultural-waste program. We estimated that about four additional full-time-equivalent staff would be needed to effectively carry out the program. There also is a backlog of new applications brought on by Senate Bill 800, and a backlog of renewal applications that came about when the Department made renewing permits a low priority. We estimated it would take 10.5 full-time-equivalent staff over the next year to catch up these backlogs.

The Department has requested additional staff in its fiscal year 1998 budget. page 28
The Department has requested three additional district-office staff for fiscal year 1997. For fiscal year 1998, it has requested three additional central staff and six additional district-office staff.

The Department generally has sufficient authority to protect the State and its citizens from pollution and nuisances caused by confined-feeding operations. page 28
The Department has adequate authority to regulate water pollution from confined-feeding operations. It also has authority to regulate dust and odors through the State's air quality statutes. However, the authority to regulate dust and odors may be meaningless without some way to measure odors and isolate how much dust is caused by a specific source. The Department had some regulations for "fugitive" dust, but these were repealed in the late 1980s because they were unenforceable. No standards for odors ever have been in State regulations. Instead, the Department relies on statutory "separation" distances to control odor problems. The majority of other states we contacted also don't specifically regulate odors or dust from confined-feeding operations.

APPENDIX A: Standards for Handling Human Wastes Compared With Those for Animal Wastes page 35

APPENDIX B: Selected Information About the 41 Facilities We Reviewed page 36

APPENDIX C: A Summary of Other States' Regulatory Programs page 39
for Confined Livestock Feeding Facilities

APPENDIX D: Agency Response page 42

This audit was conducted by Ellyn Sipp, Chris Clarke, Cindy Lash, and Laurel Murdie. If you need any additional information about the audit's findings, please contact Ms. Sipp at the Division's offices. Our address is: Legislative Division of Post Audit, 800 SW Jackson Street, Suite 1200, Topeka, Kansas 66612. You also may call (913) 296-3792, or contact us via the Internet at: **LPA@PostAudit.ksleg.state.ks.us**.

Reviewing the Department of Health and Environment's Efforts to Protect Water from Pollution Caused by Confined Livestock Feeding Operations

The 1994 Legislature passed legislation giving counties the option to approve corporate hog and dairy operations within their boundaries. According to news reports, since the legislation was passed, about 100 facilities in Morton, Stevens, Stanton, and Grant counties in southwest Kansas either have obtained permits, started construction, or started operations. One large producer—Seaboard Corporation—told us the company plans to be raising as many as 300,000 hogs a year for slaughter in these four counties in southwest Kansas.

Citizens of southwest Kansas have become concerned that the sewage generated by these and other feedlot operations will seep into and pollute the Ogallala aquifer, which is the area's only source of drinking water. Of particular concern is nitrate pollution. Other concerns have been raised about surface water and groundwater contamination in other parts of the State. Because the Department has limited staff and the livestock industry operates essentially on an honor system, questions have been raised about how well the Department's regulatory program is working.

This performance audit addresses the following questions:

- 1. Have the Department of Health and Environment's actions to permit, monitor, and regulate confined livestock feeding operations been sufficient to protect Kansas water from pollution?**
- 2. Does the Department have sufficient staff and regulatory authority to protect the State and its citizens from pollution and nuisances caused by confined feeding operations?**

In conducting this audit, we interviewed officials in the Department's central and district offices, and reviewed statutes, rules and regulations, and Department policies. We also reviewed a sample of waste-control facility files and visited some permitted facilities. In addition, we interviewed or visited a variety of people who were interested in this program, including facility operators, people who live near these facilities, local government officials, and officials of the major industry associations. We also talked with representatives from the Environmental Protection Agency and from eight other states about their agricultural waste regulatory programs. In conducting this audit, we followed all applicable government auditing standards set forth by the U.S. General Accounting Office.

In general, we found that, although little has been done to quantify the amount of pollution from animal wastes, some of the State's water supplies have been contaminated with pollution from this source. Without adequate protection, there is a risk that other waters could be polluted by animal wastes.

The Department's actions have not been sufficient to minimize the risk of water pollution. The standards it adopted for the design and location of sewage lagoons are less stringent than comparison states in two key areas—the daily seepage rate, or the amount of liquid that's allowed to seep from the bottom of an animal-waste la-

goon, and the distance a facility can be built from a water well. Although the Department has adopted many good regulatory practices, its staff didn't follow all those practices or other Department requirements in 93% of the 41 cases we reviewed. It often issued permits to facilities that didn't meet all the requirements. Many facilities operated for years with expired permits. The Department also hadn't performed the required inspections for nearly half the facilities in our sample, and 40% of the complaints filed against these facilities weren't handled appropriately. When inspections or complaint investigations uncovered violations of regulations, the Department rarely followed up to make sure those violations were corrected.

It appeared to us that the Department needs additional staff resources to carry out all the activities it should be doing to adequately protect the State's water. Some tasks currently aren't being done, and other tasks aren't being done as thoroughly as they should be. We also found that the Department's regulatory authority regarding pollution and nuisances generally is adequate. However, its authority to regulate dust and odor problems is difficult to implement without some objective way to measure odors or to isolate the amount of dust caused by a certain source. None of the other states we contacted regulated these areas either. These and related findings will be discussed in more detail after a brief overview.

Overview of the Agricultural Waste Management Program

The Department of Health and Environment regulates about 2,500 confined livestock feeding operations, including those with beef and dairy cattle, hogs, and poultry. The facilities range in size from small family operations with a few dozen animals to large corporate operations with more than 100,000 animals. (An example of one such confined-feeding operation is shown on page eight.) The Department regulates these facilities to ensure the State's water is adequately protected from contamination resulting from the animal waste produced in these feeding facilities. This Overview describes water pollution problems resulting from confined-animal feeding operations, and then discusses the Department's program to eliminate such problems.

Although Little Has Been Done to Quantify the Amount of Pollution from Animal Waste, Some of the State's Water Supplies Have Been Contaminated by This Source

Water sources typically are classified as either surface water (rivers, streams, and lakes) or groundwater (deep or shallow aquifers, as well as smaller, isolated pockets of water). According to studies conducted by the Department of Health and Environment, water in Kansas often is polluted by pesticides, fertilizers, animal wastes, and other sources. Some pollutants, such as nitrates, are found in both chemical fertilizers and animal waste. When nitrates are found, it can be difficult to identify which is the source. This audit deals only with pollution caused by animal waste.

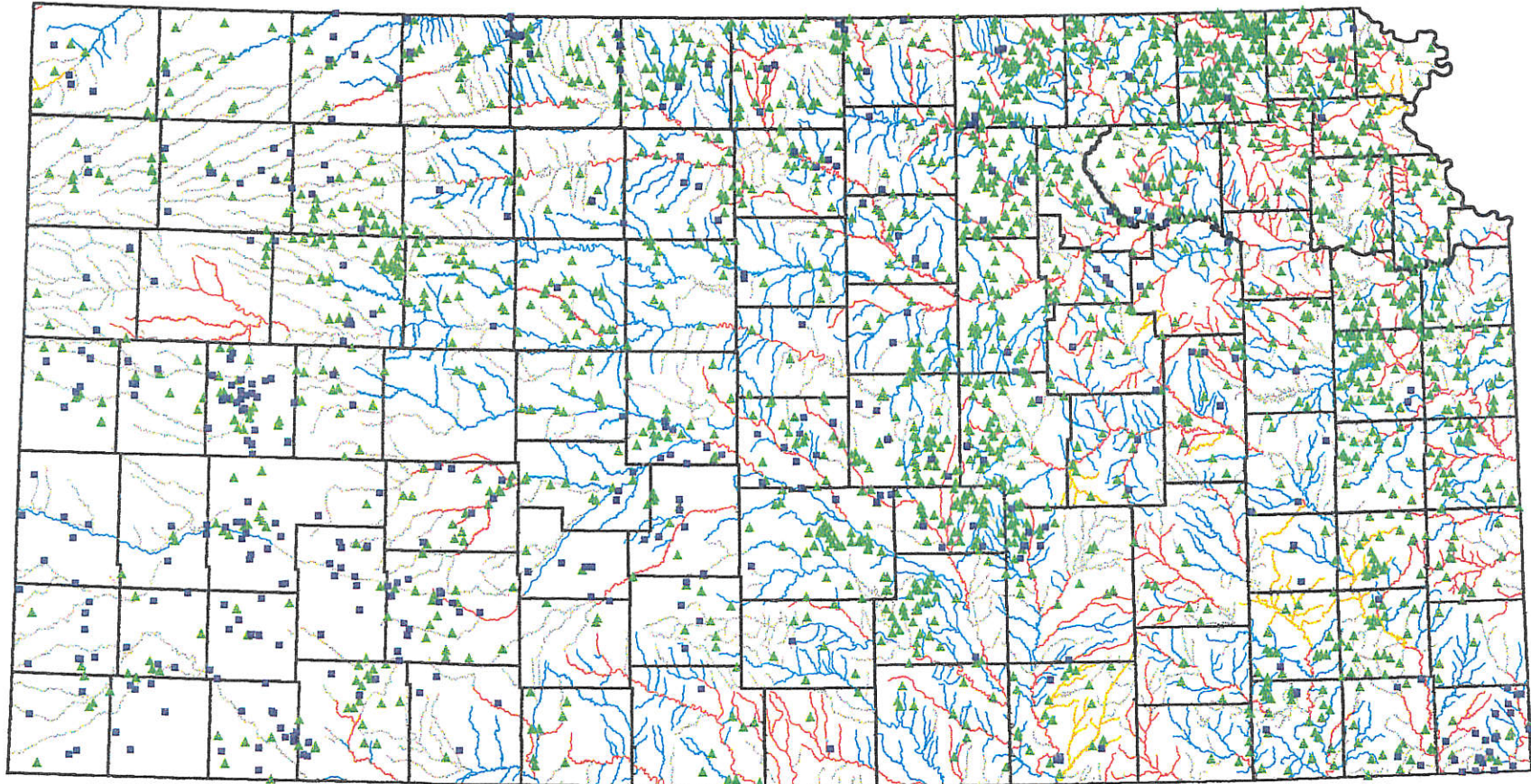
Pollutants in animal wastes can cause the following types of problems when they enter surface water or groundwater and people drink the polluted water:

- fecal coliform bacteria can cause gastrointestinal illnesses in children and adults
- nitrates are dangerous for pregnant women and infants because they can cause blue-baby syndrome (nitrates choke off the oxygen in a baby's blood and causes suffocation)
- nitrates are a potential carcinogen
- nitrates and phosphorus can cut off oxygen in streams and lead to fishkills
- nitrates and phosphorus can lead to increased algae growth in lakes and reservoirs

The Department has monitored the quality of surface water in Kansas for more than a century. Through this monitoring, it has identified segments of rivers and streams that are contaminated with animal waste, but officials can't identify specific feedlots as the source of contamination. Nor can they say whether pollutants are coming from confined-feeding facilities, which the Department regulates, or pasture grazing, which it doesn't regulate. The map on the following page shows the location of all feedlots with State or federal permits, and also shows rivers and streams polluted by animal waste.

In 1976, the Department began monitoring the quality of groundwater by sampling water from wells used for public and personal water supplies, irrigation, and livestock watering. A 1994 review of overall water quality in the State's 12 river basins didn't associate any pollution identified in groundwater with animal waste. Groundwater in nine of the 12 river basins showed elevated levels of nitrates, but the cause was judged to be migration of fertilizer through soil or natural causes.

FEDERAL AND STATE ACTIVE PERMITTED CONFINED ANIMAL FEEDING OPERATIONS OVERLAYED WITH MAP OF MONITORED STREAMS AFFECTED BY ANIMAL WASTE*



4.

DATA SOURCES:

Surface water: USEPA (modified by KDHE)

Political boundaries: KCD/KWO

Feedlots: KDHE (9/96)

KDHE Monitoring Data 1991-1995

KDHE OIS/OSS Dec. 1996 DRAFT

Permitted Confined Animal Feeding Operations

■ Federal =>1,000 animal units

▲ State < 1,000 animal units

Streams Monitored

— Major Impact by animal waste

— Minor Impact by animal waste

— Not affected by animal waste

— Streams Not Monitored

*Includes streams impacted by grazing animals and all other small unpermitted feeding operations, fecal coliform used as an indicator of animal waste

2-10

In addition, the Department has been involved in several studies of specific areas where livestock wastes have contributed to water quality problems:

- When water quality became a problem in Herington Reservoir, samples of the stream leading into the reservoir indicated livestock feeding operations were a contributing factor. The Department, Kansas State University, and the State Conservation Commission collaborated on a project to establish pollution-control practices at 11 confined feeding facilities that drained into streams leading to the reservoir.
- The Department evaluated the nitrate contamination of soil, groundwater, and surface water in the Sand Springs area near Abilene in July 1996. In contrast to the more general water quality reviews, this study concluded that animal waste had contributed to groundwater contamination in some of the Sand Springs area, as had septic systems and fertilizers.

Department officials stated that, because of the changes in monitoring procedures over the years, it isn't possible to say whether water in Kansas is better or worse than it was five years ago. Nevertheless, it's clear that livestock waste can have a detrimental impact on the State's water, and that adequate regulation of waste from confined-feeding facilities is essential to protecting the quality of that water. Surface water will show immediate effects from contamination by animal waste, while it may take many years for problems to show up in groundwater.

The Department's Oversight Authority Is Determined by Two Factors: The Size of a Confined-Feeding Operation, And Its Potential To Cause Significant Water Pollution

The size of a confined-feeding operation is calculated in terms of "animal units," which are designed to approximate the relative amount of waste produced by different types of livestock. K.S.A. 65-171d defines animal units as shown below.

Determination of "Animal Units"	
Type of Animal	# of Animal Units
beef cattle	
more than 700 pounds	1.0
less than 700 pounds	0.5
dairy cattle	1.4
hogs	
more than 55 pounds	0.4
less than 55 pounds	0.0
turkeys	0.018
laying hens or broilers	0.01 to 0.033 (a)
ducks	0.2

(a) depends on the waste control facilities in place

All operations with 300-999 animal units are required to register with the Department; smaller operations may register. To register, an operator submits a registration form to the Department indicating the proposed location and animal-unit capacity of the operation.

Within 30 days after an operation submits a registration form, Department staff are required to visit the proposed site and assess whether it poses a significant water pollution potential. That assessment is a judgment call; Kansas laws and regulations don't define the term. If the operation doesn't pose a significant water pollution potential, the Secretary certifies that no permit is needed. Department staff are required to inspect certified facilities every three years.

If Department officials find that operations with 300-999 animal units pose a significant water pollution potential, they are supposed to require the operator to obtain a State permit. Essentially, the permit authorizes the owner to operate whatever waste-control facilities—such as lagoons or holding ponds—Department officials deem necessary to manage the animal wastes produced.

To obtain a permit, the operator submits an application with the detailed construction and operational plans. Department engineers are required to review the plans to ensure those facilities meet the Department's design standards. After the plans are approved, a draft permit is prepared and placed on public notice for a 30-day comment period. If no substantive comments are received, a permit is issued and construction of the facilities can begin. If substantive comments are received, the Department may hold a public hearing. Depending on the outcome of that hearing, the Department can issue, deny, or modify a draft permit.

After a facility is built, Department staff or the private engineer responsible for the facility are required to conduct a post-construction inspection to certify it was built to specifications before the operator can begin using the facilities. Department staff are required to inspect facilities with State permits every two years to ensure they continue to operate in compliance with their permits.

All operations with 1,000 or more animal units have to register with the Department and obtain a combination State/federal permit. These facilities fall under federal regulations for concentrated animal-feeding operations. As a result, they have to obtain a federal National Pollution Discharge Elimination System permit. In Kansas, the Department administers the federal permitting program and issues the federal permit. The process described above for obtaining a State permit is followed to obtain a federal permit as well. One difference: Department staff are required to inspect federally permitted facilities annually to ensure they continue to operate in compliance with their permits.

Penalties can be assessed if an operation doesn't have a permit or is polluting the water. To ensure that confined-feeding operations get the appropriate permits, take corrective action when required, and don't pollute the water, State law has a number of penalty provisions in place. They include penalties of \$50-500 for failing to furnish required information, and up to \$10,000 for every instance in which the operator doesn't comply with the requirements of his or her permit. The table on page 22 summarizes these penalties in more detail.

Currently, About 1,900 Operations Have Been Issued Permits by The Department, but Recent Statutory Changes Could Increase That Number Significantly

The following table shows the number of facilities regulated by the Department over the past several years. According to figures supplied by the Department,

nearly 56% of the permitted facilities are for hogs, and about 40% are for beef or dairy cattle.

**Number of Confined Livestock Operations
Regulated by the Department**

	<u>December 1991</u>	<u>October 1993</u>	<u>January 1996</u>
Federal permits	265	260	348
State permits	<u>1,585</u>	<u>1,466</u>	<u>1,521</u>
Total permitted facilities	1,850	1,726	1,869
Certified facilities	<u>705</u>	<u>700</u>	<u>647</u>
Total regulated facilities	2,555	2,426	2,516

As the table shows, the number of facilities regulated by the Department has remained relatively constant. There has been a drop in the number of facilities with State permits, but a corresponding increase in the number of facilities with a federal permit. In the next few years, however, Department officials estimate that as many as 600 new facilities will be issued a permit—and about the same number will be certified—as a result of Senate Bill 800, which was passed during the 1994 session.

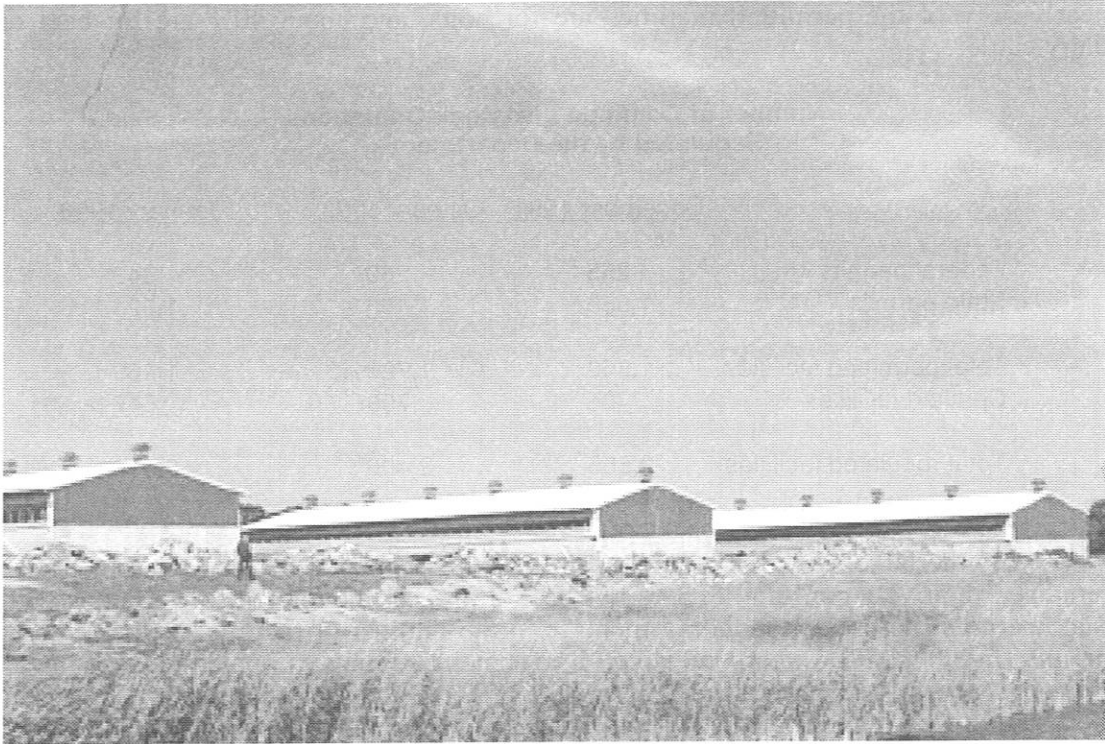
Among other things, Senate Bill 800 established fees for various sizes of operations, and defined operation size on the basis of number of animal units. The bill also established formal separation distance requirements between newly constructed or expanded livestock feeding operations and residences. Smaller facilities have to be a minimum of 1,320 feet from any structure that someone could live in. Larger facilities have to be at least 4,000 feet away. (Before Senate Bill 800, facilities with more than 5,000 animals actually had to be 5,280 feet away, or farther than required under the new law.)

A grandfather clause was included in the bill so that an operator who could show his or her operation had been in existence before July 1, 1994, didn't have to meet the new separation distance requirements.

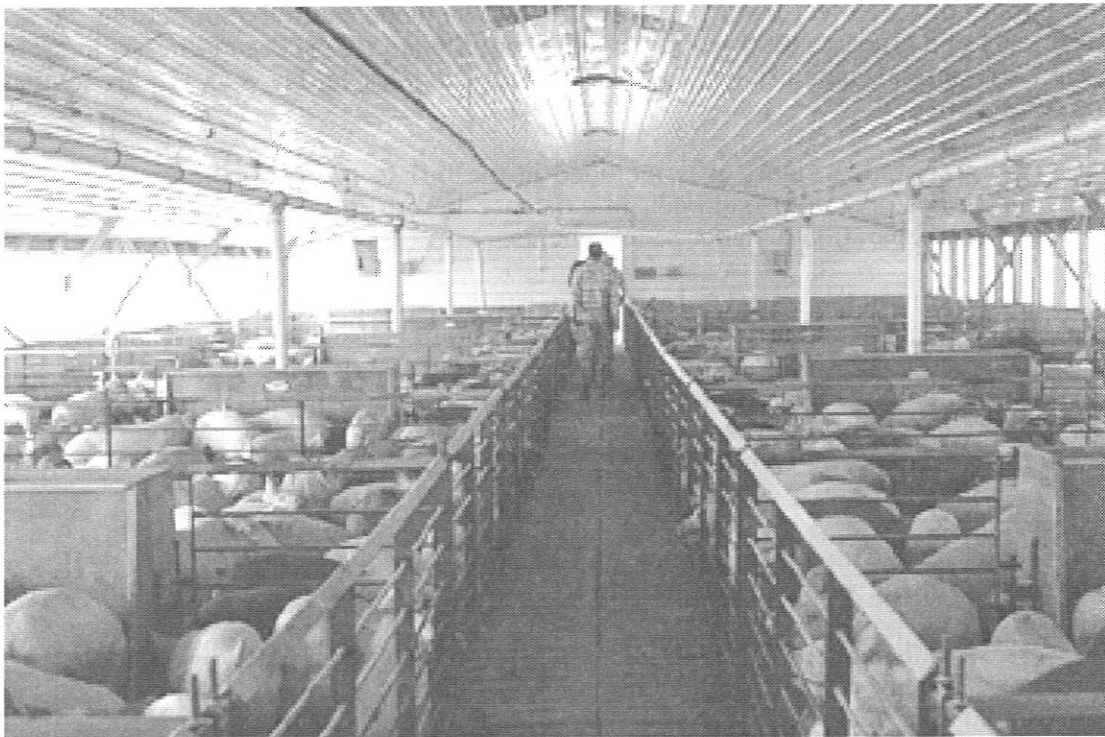
The grandfather clause also gave existing operators the right to expand their operations without having to meet the new separation distance requirements. This clause has had some odd effects, as shown in the profile on page 9. Finally, the bill gave operators until July 1, 1996, to register with the Department. If they didn't register by that date, their operations would have to meet the new separation distance requirements. A total of 1,360 facilities registered with the Department as a result of Senate Bill 800.

**The Department Has a Staff of About 10 Employees
To Carry Out the Agricultural Waste Regulatory Program**

Two full-time staff—an engineer and an engineer associate—work in the Department's Bureau of Water. In addition, eight full-time-equivalent staff work in the Department's six district offices under the Bureau of District Operations. These field staff include 6.5 full-time-equivalent environmental technicians and 1.5 professional



These pictures show what a typical confined hog feeding facility looks like. Long, narrow buildings house hundreds of pigs as they grow from about 55 pounds to their market weight of 250 pounds or more. The floors in the facilities are slatted, allowing the hog waste to drop down to a liquid holding tank about two feet below. Periodically, the liquid wastes are flushed to a lagoon.



**Senate Bill 800 May Allow Some Facilities
To Get Permits That Couldn't Have Gotten Them Before**

Senate Bill 800 allowed facilities in existence on July 1, 1994, to be exempt from provisions in the bill that specify how far a facility has to be from habitable structures. Two facilities in our sample are likely to benefit significantly from this provision.

The Department granted a facility in north-central Kansas a permit for a new feedlot with up to 1,000 head of cattle in 1992. After neighbors proved the permit shouldn't have been issued because there was a house nearby, the Department revoked the permit in July 1993. The feedlot operators appealed the Department's decision.

While the appeal was being considered, the operators moved the first 40-50 head of cattle onto the site. After numerous administrative actions, in June 1995 the Department upheld its decision to revoke the permit. However, officials also ruled that, because the operator had moved cattle onto the site before July 1994, the facility was exempt from separation-distance requirements.

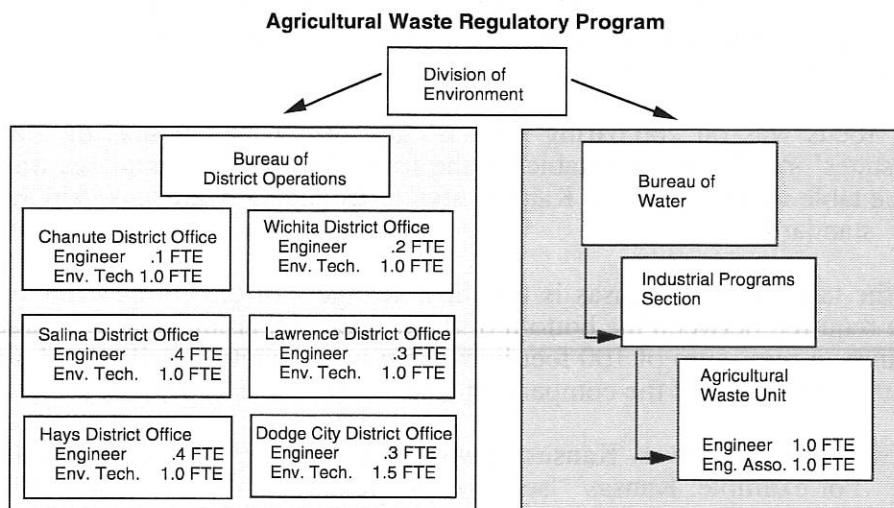
In February 1996, the owner applied for a permit as an existing facility under the terms of Senate Bill 800. A new permit was granted in December 1996 for 1,000 head of cattle. Thus, a facility that had had its permit revoked because it didn't meet separation distances at the time it was established, was able to qualify for a new permit under Senate Bill 800.

A facility in northwestern Kansas applied for a permit for a facility for 10,000 head of cattle in 1992. The Department approved the permit, but limited the operator to 5,000 head because there was a house a little less than one mile away. (At the time, the Department's policy required new facilities with more than 5,000 head to be at least one mile from a house).

In November 1995, the operator applied for a permit to expand the facility to 8,000 head of cattle. As an existing facility, under Senate Bill 800 it wasn't subject to separation distances as long as it didn't expand closer to a house than it was previously. The Department received letters opposing the expansion in response to the public notice posted in August 1996, but as of December officials hadn't decided whether to issue the permit.

engineers. (These figures exclude clerical and administrative support staff at the central and district offices.)

Expenditures for the program aren't broken out separately, but salaries and fringe benefits for the 10 full-time-equivalent staff are around \$450,000 a year. The program generates fees of about \$120,000 annually, which go to the State General Fund. The following organization chart shows where the program staff are located.



Have the Department of Health and Environment's Actions To Permit, Monitor, and Regulate Confined-Livestock Feeding Operations Been Sufficient to Protect Kansas Water from Pollution?

The Department's actions haven't been sufficient to minimize the risk of water pollution. The standards it adopted for the design and location of sewage lagoons are less stringent than comparison states in two key areas—the daily seepage rate, or the amount of liquid that's allowed to seep from the bottom of an animal-waste lagoon, and the distance a facility can be built from a water well.

Although the Department has adopted many good regulatory practices, its staff didn't follow all those practices or other Department requirements in 93% of the 41 cases we reviewed. It often issued permits to facilities that didn't meet all the requirements. Many facilities operated for years with expired permits. The Department also hadn't performed the required inspections for nearly half the facilities in our sample, and 40% of the complaints filed against these facilities weren't handled appropriately. When inspections or complaint investigations uncovered violations of regulations, the Department rarely followed up to make sure those violations were corrected. These and related findings are discussed in more detail in the sections that follow.

The Department's Design Standards Are Less Stringent Than Comparison States in Two Key Areas

The Department of Health and Environment has established certain design and engineering standards for constructing waste lagoons and other waste-control facilities for confined-feeding operations. These standards are intended to prevent animal wastes from contaminating the State's water resources. If a waste-control facility meets these standards, Department officials say they are confident the facility won't pollute the State's waters. (The standards are somewhat different for containing human wastes. Those differences are shown in Appendix A.)

In this audit, we didn't attempt to determine whether Kansas had the "right" standards to accomplish this goal. That type of determination will be done, in part, by scientists at Kansas State University during 1997. (The profile box on page 12 provides more information about this study.)

Our focus was on comparing Kansas' key design or engineering standards with other states' standards. The table on the following page summarizes this comparison. The table is shaded where Kansas' standards generally are less stringent than other states' standards.

As the table shows, Kansas is the most stringent of the comparison states in the distance required between the bottom of the lagoon and groundwater. In addition, Kansas requires a minimum of 100 feet between a waste-control facility and a neighbor's property line. Most of the comparison states don't have a standard in this area.

In two areas, however, Kansas' design standards are less stringent than the other states. For example, Kansas' "seepage" standard specifies that the liquid from

**Selected Design Standards for Confined Animal Feeding Operations
In Kansas and Other States**

STANDARD(a)	KS	MN	NC	WI(d)	IA	OK	NE	MO	CO
Separation Distance to Dwellings (b)	1,320 to 4,000 ft.	No standard	1,500 ft.	No standard, relies on zoning	None to 2,500 ft.	No standard	Follows federal regs for feedlots	1,000 to 3,000 ft.	No standard
Separation Distance to Property line	100 ft.	No standard, relies on zoning	50 ft.	No standard, relies on zoning	No standard	No standard	No standard	50 ft., storage structures only	No standard, relies on zoning
Distance to Water Wells	100 ft.	100 to 200 ft.	100 ft.	100 to 250 ft.	100 to 1,000 ft.	50 to 100 ft.	100 ft.	300 ft.	150 ft.
Distance from bottom of waste structure to groundwater	10 ft.	2 ft. above seasonal saturation	No standard, relies on seepage control	3 ft.	2 ft., unless a synthetic liner is used	No standard	Locate where the facility won't contaminate	4 ft.	No standard
Land required for the facility	Min. 40 acres. Follow mngmt. plan	No standard	Based on needs of crops grown	Follow waste-management plan	Based on Nitrogen needs of crops grown	Based on crop needs/ mngmt. plan	Case by case for confined facilities. Feedlots 5 to 1 acre ratio	Enough for proper disposal	Based on nutrient needs of crop
Storage Structure Capacity	120 to 180 days	No capacity req.	180 days	180 days	Sufficient capacity	21 days storage	180 days	180 days	Dewater/ 15 days of rainfall event
Storage Structure Freeboard	2 ft	1 to 2 ft.	1 ft to 2 ft.	2 ft.	2 ft.	2 ft.	1 ft.	1 to 2 ft.	2 ft.
Liner materials used	Material that meets the seepage rate	Earth, concrete, plastic	Any material that meets seepage rate	Earth, concrete, plastic	Any material that meets seepage rate	Synthetic, natural	Material that meets the seepage rate	clay	Owner's discretion
Seepage allowed for earthen storage structures (c)	1/4 in. per day	1/56 in. per day	1/28 in. per day	No std.	1/16 in. per day	1/33 in. per day (engineer designs)/ NRCS 1/3	1/4 in. per day	1/56 in. per day	1/32 in. per day
Lysimeter required?	No	No	No	No	No	No	No	No	No
Site appraisal before development?	Yes	Yes	8 sign-offs required	Yes	To verify separation distance	Yes for federal permits	No	Not always	No
Required to follow design standards?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(a) Those standards where Kansas is less stringent than other states are shaded.

(b) Separation distances are given in ranges and may include distances required between facilities and public meeting places, dwellings. Generally the greater the number of animal units, the larger the separation distance.

(c) These seepage rates may not be comparable, because each state has different loading rates and liner thicknesses for the structures.

(d) These requirements are for permitted facilities only (those with >1,000 animal units).

Kansas State University Will Study Animal-Waste Lagoons and Liners

One of the biggest areas of controversy and concern regarding animal-waste lagoons is whether the standards for their construction are adequate to protect the State's surface water and groundwater. In particular, people have questions about whether liquid should be allowed to seep out of the bottom of lagoons by up to 1/4 inch per day. People also question whether some sort of plastic or concrete liner should be required, instead of the compacted clay liners installed in most lagoons.

Part of the rationale for the 1/4 inch seepage rate standard and the clay liners is that the manure from animal wastes reportedly creates a virtually impermeable seal at the bottom of a lagoon in a relatively short period of time. However, this theory has not been definitively tested.

In late October 1996, the Department of Health and Environment entered into a contract with Kansas State

University to answer the following question: will the construction of livestock waste lagoons according to current guidelines and practices meet standard leaching requirements and not compromise groundwater resources?

K-State scientists will work with an existing livestock facility in western Kansas to measure how much liquid is seeping from new and existing lagoons. They will assess the adequacy of current guidelines and practices (including the 1/4 inch seepage standard and various soil compaction techniques), and will design a way to monitor contamination from these facilities over the long-term. Finally, they will determine what standards of construction or seepage rates are scientifically defensible.

K-State officials told us they hadn't selected an existing facility to work with yet, but that they hope to get the project underway by early 1997. The results are expected within a year.

the bottom of a lagoon can't seep into the ground by more than 1/4 inch per day. Six of the eight other states allow a seepage rate of less than that—generally 1/16 inch to 1/56 inch per day. Kansas also requires 100 feet between a waste-control facility and a well, while most other states have a variable standard based on the quality of the well's construction.

Even if a state has adopted stringent standards in the construction of a waste-control facility for confined feedlot operations, there is still a risk of water pollution if those standards or other requirements aren't being enforced or adhered to. The Department's regulatory program is responsible for ensuring that these standards and requirements are being met.

We Found Some Significant Problems With the Department's Agricultural Waste Regulatory Program

During this audit, we identified a number of good-management practices we would have expected the Department to adopt and follow in carrying out its agricultural waste regulatory program. These are listed below:

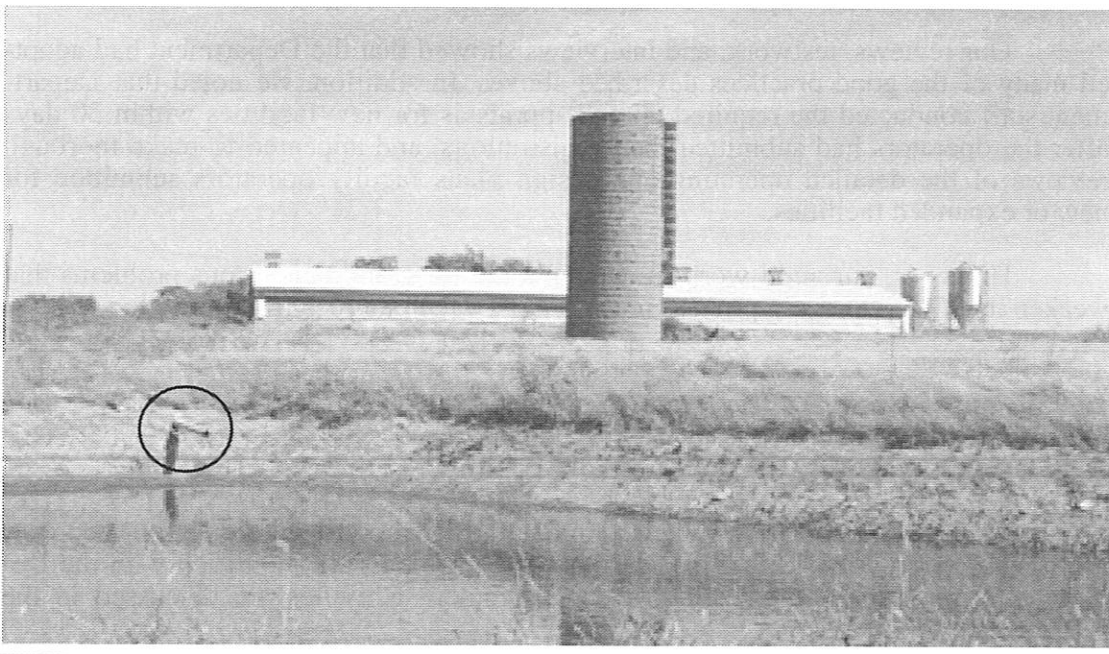
Practices relating to issuing permits to operate:

- having a way to identify which facilities need a permit
- requiring on-site inspections or appraisals—including detailed operational and design plans—before a permit application is approved
- providing for a public comment period on the proposed facilities



These two pictures depict animal-waste lagoons. The picture above is a lagoon being built for hog wastes in southwest Kansas. A plastic liner is being installed on top of the compacted clay liner, although this is not the norm. The trucks are parked in the bottom of the lagoon, which gives a sense of its size.

The lagoon shown below also houses hog wastes. It is lined with clay. The water level is fairly normal—there's some space (called freeboard) between the liquid's surface and the top of the lagoon bank. The pipe at the left of the picture (inside the circle) comes from the hog house and transports the liquid wastes from the facility to the lagoon. These wastes eventually will be used on the farmer's farmland as fertilizer, or may be sold to other farmers for that purpose.



- requiring a final inspection or other certification that the completed facility met the design plans and standards and any other pertinent requirements
- ensuring that the feedlot isn't operated until the permit is finalized
- developing a system for renewing permits

Practices relating to monitoring waste-control operations:

- conducting routine on-site inspections
- reviewing reports that facilities periodically are required to submit
- checking out complaints against facilities to determine if corrective action is needed

Practices relating to enforcement actions being taken against waste-control operations:

- having a way to identify violations
- having established policies to address problems found during inspections
- having effective penalties for noncompliance to prevent repeat violations
- following up to ensure problems are solved
- taking enforcement action when appropriate
- using a tracking system to assist in following-up and documenting enforcement efforts
- making sure facilities know the penalties for non-conformance

To determine whether the Department had adopted and was following these good practices, we reviewed the Department's policies and procedures, and reviewed a sample of 41 facilities' files in detail. These files included 13 facilities that people had complained to us about. The other 28 facilities were selected randomly from the Department's database of confined livestock facilities. Our sample included both large and small beef and dairy cattle, hog, and poultry facilities from all parts of the State.

In addition to reviewing files, we interviewed facility operators, neighbors, industry officials, Department staff, and officials in other states. Appendix B identifies the facilities in our sample, and provides our summary findings about each of them. Appendix C presents comparative information about other states' programs.

Our reviews, testwork, and interviews showed that the Department had adopted many of the good practices described above. In addition, we noted that Department staff conducted the required on-site appraisals for new facilities within 30 days after the operators had submitted their registrations, and appeared to make thorough reviews of the detailed operating and design plans facility operators submitted for new or expanded facilities.

However, our audit work showed that the program had serious problems that weaken its effectiveness in protecting the State's water sources from pollution.

In 93% of the Cases We Reviewed, the Department Didn't Follow Its Procedures or Requirements for Regulating Agricultural Waste-Control Facilities

Of the 41 facilities we reviewed in detail, the Department didn't follow one or more requirements for 38 facilities (93%). The problems we identified with the Department's permitting, monitoring, and enforcement activities are discussed in the sections that follow.

Findings Related to the Permitting Process

Most facilities we reviewed were allowed to operate even though they hadn't met all the requirements for obtaining a permit, or their permits had expired. In all, 36 of the files we reviewed had a permit-related action sometime in calendar years 1991-1996. (The other five facilities were certified as not needing a permit.) We found that, for 32 of these 36 files (89%), at least one requirement or procedure wasn't followed. For some facilities, multiple requirements weren't followed. The problems we found are summarized below:

- ***16 facilities in our sample were operating with expired permits.*** One of those operators was applying for a permit for an expanded facility; the other 15 were applying for a permit renewal. On average, their permits had been expired for nearly 3 years. Six facilities' permits had been expired for four years or longer. Without a current permit, there's no assurance that significant changes in a facility's operation will be disclosed.
- ***8 facilities were operating without a final engineer's certification.*** Even when they had the engineer's certification, Department staff didn't systematically review that work to ensure the facility had been built according to design standards. For example, in one facility we reviewed the Department had accepted the private engineer's certification that the seepage rate for a lagoon was less than 1/4 inch per day, without checking the supporting data. However, when the Sierra Club conducted a review of files, it noted the seepage rate for this facility when the lagoon was full actually calculated out to nearly 1/2 inch per day. Unless the Department receives, reviews, and verifies some of the key elements contained in these reports, there's no assurance the facility was built according to the plans approved by the Department.
- ***7 facilities were operating even though required permeability / seepage tests had never been submitted to the Department.*** Without these tests, there's no assurance that waste-control structures will adequately protect the environment.
- ***6 facilities were operating without proof that the equipment they would need to maintain the lagoon had been purchased or was available.*** If a facility doesn't have adequate equipment to remove and distribute a portion of the liquid waste in a controlled manner, there's a much greater chance the lagoon will overflow and discharge its animal waste.
- ***5 facilities were operating even though design standards hadn't been met.*** For example, one facility was approved to operate even though the bottom of its lagoon was only about four feet above groundwater, not the required 10 feet. Another facility was approved to operate only 75-80 feet from a water well, not the required 100 feet. In neither case was there documentation in the file of the rationale for deviating from the standards. These design standards have never been put into regulations (although the Department is currently in the process of doing so). Apparently, this has led Department staff to treat those design standards as guidelines, not as requirements.
- ***2 facilities were operating even though special permit conditions hadn't been met.*** In one case, the operator was supposed to submit written agree-

ments specifying that the operator could use another person's land for wastewater application, and documenting his contract with a waste management contractor. In the other case, a gauge was supposed to be installed in the lagoon to measure the depth of the water. If special permit conditions aren't met, the Department has less assurance that waste-control facilities will be managed appropriately.

- **2 facilities were approved even though they had never received the required waivers from nearby neighbors.** In one case, for example, two houses and one business were within the separation distance. Only the waiver for the business was submitted. The purpose of the waiver is to let neighbors decide whether to give permission to operate within the separation distance. Without a waiver, the operator may be operating in violation of State law.
- **1 facility was approved even though the Department had never reviewed the facility's plans.** Without such a review, there's no assurance that the facility was constructed and would be operated in a way that would minimize the risk of water pollution.
- **1 facility began operating before a permit was issued.** This facility, which had 33,000 turkeys (594 animal units), apparently began operating 16 months before it had received a permit. Department staff inspected the facility in February 1994 while it was being constructed, and apparently were aware that turkeys were going to be brought to the facility later that month. Nonetheless, the facility didn't receive its permit until June 1995.

Most of these problems occurred because Department staff simply didn't do what they were supposed to do, or didn't have any systematic ways to ensure that operators had met all requirements and submitted all required documentation. Given the seriousness and pervasiveness of many of these problems, we concluded that, in many instances, the State has little assurance that surface water and groundwater are being adequately protected from contamination by animal waste.

The Department has no systematic way of identifying facilities that may pose a significant water pollution potential and need to be regulated. Operators who are required to register are expected to do so voluntarily. But not all do. As noted earlier, in response to Senate Bill 800, more than 1,300 facilities registered with the Department for the first time. Some of these undoubtedly were new facilities—Department officials estimate they have 150-200 new facilities that get permits each year. But, a significant number were existing facilities that already should have been registered with the Department. Some examples:

...one facility we reviewed indicated on its 1995 application for a permit that it currently had 300 head of dairy cattle, and that the existing facility had been constructed in 1974. However, the operators had never had a certificate or permit from the Department before.

...during a cooperative demonstration project between the Department's Non-Point Source Pollution Section and Kansas State University, 11 seasonal confined feeding operations for cattle were identified as contributing to water pollution problems in the Herington Reservoir watershed. All the facilities had been in existence for some years, but none had registered with the Department.

In trying to address the large backlog of renewal permits, the Department is short-cutting some potentially important steps. Department staff told us that renewals haven't been a priority over the past several years because of staffing constraints. As a result, by July 1996 there was a backlog of more than 1,000 renewals to be processed. Until 1994, they were operating under the false assumption that the Kansas Administrative Procedures Act applied to the program, which meant expired permits remained valid as long as a timely renewal application had been submitted.

In July 1996, the current Secretary of Health and Environment directed staff to process all renewal permits and bring them up-to-date by January 1, 1997. To meet this deadline, Department staff weren't able to do as thorough a job as they told us they would have liked. For example, they aren't performing site visits to make sure the facilities haven't been altered since the previous permit was issued. These visits are important because operators frequently change the size of their livestock herds, add new waste-control facilities, and the like. Instead, staff are redrafting the permits based on the operation that existed when the original permit was issued, and are relying on the operators to tell them if anything has changed.

Department staff told us facility operators have an incentive to tell them about any changes, because if they have changed their operation, they could be cited for operating in violation of their permit conditions. Nonetheless, the Department is running the risk that significant changes won't be disclosed and pollution could occur.

The public notice process doesn't effectively reach people who might be interested in whether a permit is issued. Before a permit is issued, it's placed on a 30-day public notice period to allow interested parties to submit information to the Department supporting or opposing the proposed facility. The notice is published in the Kansas Register, and typically is sent to the mayor, county commission, and post office corresponding to the operator's address.

Most citizens don't read the Kansas Register, and the Department has no control over how—or even whether—local officials publicize the information. By failing to specifically notify people who live within a certain radius of the proposed facility, the Department reduces the chance that these individuals' comments and concerns will be heard. For example:

...one operator in our sample lived some distance from the land where he proposed to construct two confined feeding facilities, and the public notices were sent to the post office and mayor in the operator's home town rather than the town where the facilities would be built. No comments were received and the facilities were constructed. Neighbors who are upset about the facilities point out there was almost no way they would have known about the public comment period and, in fact, only learned of the operator's subsequent plan to expand one of the sites when they attended a meeting of the groundwater management district.

Findings Related to the Monitoring Process

The Department hadn't performed the required inspections in nearly half the facilities in our sample. Department policy requires staff to inspect all certified facilities once every three years, all facilities with a State-issued permit once every two years, and all facilities with a federal permit once every year. Central office staff send field staff listings of the facilities that need to be inspected.

In all, 36 of the 41 facilities in our sample should have had one or more inspections sometime in calendar years 1991-1996. However, our reviews showed that inspections weren't conducted when they were due for 16 of these facilities, or 44%.

Four certified facilities were overdue for an inspection by an average of 4.5 years. The same was true for eight facilities with State-issued permits. Four federally permitted facilities were overdue by an average of about two years. Some examples:

...two of five certified facilities in our sample hadn't been inspected since the mid-to late-1980s. Another facility had never been inspected since it was certified in 1973.

...one facility with a history of overfull lagoons (including one documented overflow which sent animal waste across a neighbor's land before it entered a creek) received regular inspections during the early 1990's. In a January 1995 inspection, Department staff noted that the lagoons, while not overflowing, were overfull and needed to be pumped down. The inspection form indicated that, because the facility was only 20 miles from the district office, the facility would be monitored closely until the lagoons were brought into compliance. At the time we reviewed the file, nearly two years later, inspectors hadn't revisited the facility.

Department officials said inspections often weren't performed as required because of staffing constraints. However, by not inspecting these facilities, the Department has little or no assurance that facilities are operating in compliance with the requirements of the regulatory program or the conditions of their permits. Each permit sets out operating conditions that specify such things as which land and animal buildings can drain to a particular lagoon, when lagoons must be de-watered (pumped

Inaction by the Department Over Nine Years May Have Allowed A Facility to Seep at More Than 20 Times the Allowed Standard

For one operator in our sample, two new lagoons were built in 1988 when the facility was expanded to handle 30,000 head of cattle. Soil permeability test results submitted to the Department indicated one lagoon could seep 5.86 inches per day from the bottom through a 6-inch liner, while the other lagoon could seep as much as 7.18 inches per day. Allowable seepage is 1/4 inch per day. (The plans submitted for these lagoons were very simplistic, and don't even show a compacted liner, so Department officials don't know how thick it might be.) Despite these test results, the Department allowed the facility to continue operating.

In 1993, a Department staff member reviewing the facility's file sent a memo to the facility through Bureau of Water management staff pointing out the 1988 permeability results for these lagoons. The memo noted the Department had installed temporary observation wells at the two new lagoons in 1988 or 1989, but the resulting data couldn't

be found. The memo also said that groundwater in that area (Reno County) was shallow, and had elevated nitrates. The memo concluded that, if the lagoons hadn't sealed themselves, the Department may have a real problem. There's no indication in the file that anything was done in response to this memo. In addition, this facility had only one inspection during the six-year period we reviewed, even though it should have had an annual inspection.

When we asked Department officials about this case, they couldn't find any other records to indicate any action had been taken. They found partial information from the monitoring wells, which showed somewhat high nitrates, but couldn't locate the corresponding map that would show the locations where the samples were taken.

After reviewing the file with us, Department officials said they needed to check on this situation right away. One month later, nothing had been done.

down) and how they are to be maintained, conditions under which animal waste can be distributed to farm land, and the like. When conditions aren't met, the risk of water pollution is greatly increased, as illustrated in the box on the previous page.

We also found the Department isn't ensuring that facilities submit monitoring logs as often as required. These logs provide the Department with on-going information about facility operations and conditions between regular inspections. Operators are required to document the amount of wastewater in the lagoon at three points during the month. In addition, whenever waste is disposed of, operators are required to document the environmental conditions at the time, as well as how and where the waste was applied to the land. Large facilities are required to send these forms to the Department each month. Smaller facilities are required to keep them on hand for staff to review during inspections.

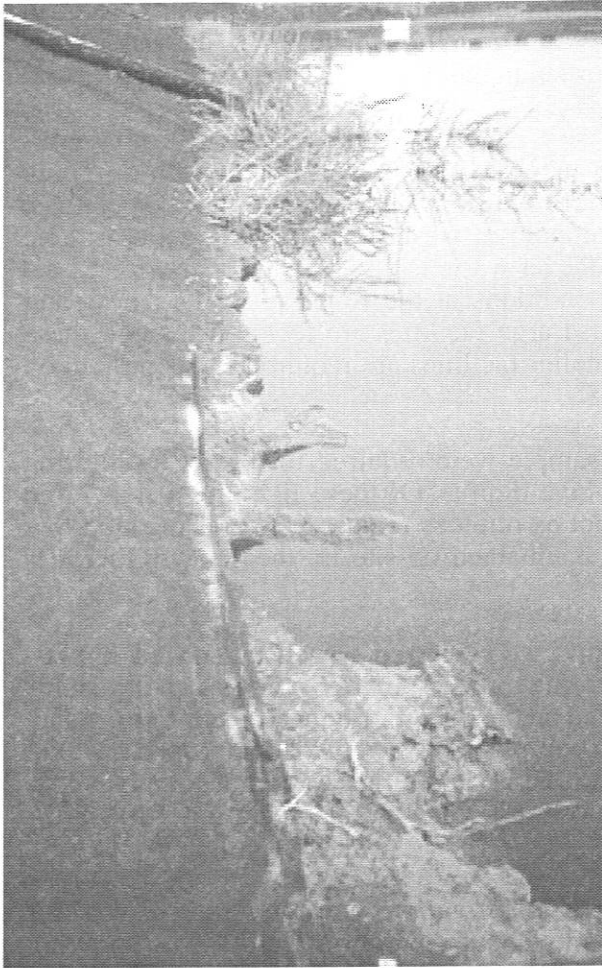
In all, 10 of the facilities in our sample were required to submit monitoring logs during the first 9 months of 1996. Five didn't. Of these five, three sent in no logs and the other two sent in logs, but not as often as required. We also found that Department staff didn't review the logs maintained on-site by the smaller facilities during their inspections.

Altogether, 41% of the complaints we reviewed weren't handled appropriately. Another aspect of the monitoring process involves investigating complaints. In all, 27 complaints had been filed against eight of our sample facilities during calendar years 1991-1996; 16 of those complaints were handled appropriately, the other 11 weren't. The problems we identified related either to complaint investigations or to the Department's enforcement actions. Our findings relating to the investigation of complaints are as follows:

- **for 5 complaints, the Department's investigations weren't timely or weren't thorough enough.** Two complaints about the way a facility was spraying wastewater from a lagoon onto a field weren't investigated for a month. In another case, even though the complainant alleged the operator had pumped wastewater onto the same field four times in seven months, and expressed a concern about too much nitrogen in the soil, no soil tests were conducted. Instead, the inspector discussed appropriate wastewater disposal with the operator.
- **for 1 complaint, the Department didn't conduct an investigation as required.** In this case, a person complained a facility was spreading manure on top of a field, resulting in a very strong odor. Department officials sent a letter to the complainant stating that they don't regulate odor, but would investigate how the manure was applied. There is no evidence they did so.

Findings Related to the Enforcement Process

Department staff didn't verify that animal-waste operators took the corrective action required when problems were identified, or didn't ensure that such action was taken on a timely basis. The enforcement process should be designed to make sure corrective action is taken when problems are identified through monitoring logs, on-site inspections, or complaint investigations. However, we noted the Department doesn't require its staff to conduct follow-up, on-site inspections to



These pictures depict some potential problems with animal-waste lagoons. The lagoon on the left shows signs of erosion where the clay liner has been partially washed away. The operators have installed a fabric to help control the erosion, but it clearly hasn't eliminated the problem. One possible impact is that the liquid will seep out of the lagoon at a faster rate than it should.

The problem in the picture at right is that the concrete foundation of a hog facility has cracks in it. Liquid, presumably from the hog slurry, is seeping out. In both cases, the risk is that the animal wastes will get into the State's water supplies.



ensure that identified problems have been corrected. Instead, Department policies allow inspectors to call operators on the telephone to find out if they've corrected the problems.

Between 1991 and 1996, the Department had identified nine facilities in our sample as being out of compliance with one or more regulatory requirements or permit conditions. (Six were identified during routine inspections, and three were identified during complaint investigations.) We found problems with the Department's enforcement efforts related to these nine facilities, as summarized below.

• **at 7 of the 9 facilities, the Department required the facility operators to take corrective actions, but never verified that those actions actually had been taken.** For example, a routine monitoring inspection in February 1994 indicated that an operator failed to report to the Department that his lagoon had overflowed the previous year. The report also indicated that the corner of the lagoon needed to be reconstructed and reshaped. More than 2 1/2 years later, however, the Department hadn't returned to see if the required repairs had been made. In most cases, we saw no evidence that the Department had even followed-up over the telephone.

• **at 3 facilities, the Department didn't require the facility operator to take appropriate corrective action.** For example, one operator poured a cement pad in a portion of his lagoon after wastewater from the discharge pipe eroded the clay liner. Although the construction engineer said the pad was too small, the Department didn't require the operator to enlarge it.

We also found the Department has no system for tracking compliance problems and complaints. As a result, Department staff can't easily identify patterns of noncompliance or multiple complaints with certain operators.

Without adequate follow-up systems, the Department has no independent assurance that problems its staff identify at agricultural waste-control facilities actually are addressed, and that the State's water resources are adequately protected.

The Department didn't always take appropriate enforcement actions against operators with a history of repeated violations. Such activities can involve on-going efforts by field staff to get an operator to come into compliance. The Department also can take formal enforcement action—such as issuing a Bureau directive or an order for a fine. The table on the top of page 22 shows the formal enforcement actions the Department can take.

Only two facilities in our sample had formal enforcement action taken against them. In one case, the action was appropriate; in the other, formal action wasn't taken on a timely basis. We also identified at least two other cases that, in our opinion, the Department should have taken formal enforcement action against, but didn't. These problems are summarized below:

• **in 1 case, the Department didn't take formal enforcement action on a timely basis.** The Department fined an operator \$12,000 in late-November 1996 for failure to submit required monitoring logs, repeatedly operating with overfull lagoons, allowing overflows from the lagoons, and failing to notify

A Summary of the Department's Fining Authority

If a person or facility.....	The Department can.....	Regulatory Authority *(conviction required)
...pollutes state waters, with or without a permit.	...order that the pollution be stopped. Assess penalties for sewage discharge: \$2,500 to \$25,000, in addition to \$25,000 each day the discharge continues.	K.S.A. 65-164(a) *K.S.A. 65-167
...doesn't comply with permit terms or conditions, fails to file, report or comply with inspection or monitoring requirements or secretary's order.	...fine up to \$10,000 for every violation and may impose a penalty to act as a economic deterrent to the violation, or modify or revoke the permit.	K.S.A. 65-170d K.A.R. 28-16-62(e)(2)(A) and (f)(1)(A)
...fails to follow the secretary's requirements, for example: fails to provide information or comply with general requirements.	...fine \$50 to \$500 for failure to furnish information and can fine \$25 to \$100 for each offense of failure to follow Secretary's requirements	*K.S.A. 65-169
...doesn't report a discharge to the Department.	...fine \$1,000 to \$10,000 per day.	K.S.A. 65-167
...makes a false report, application, plan or other record, or tampers with any monitoring device.	...fine \$25 to \$10,000 per day, or modify or revoke the permit.	*K.S.A. 65-170c K.A.R. 28-16-62(e)(2)(A) and (f)(1)(B)
...doesn't comply with the Department's rules or regulations. (For instance, doesn't get a permit when a permit is required.)	...fine \$25 to \$10,000 per day.	*K.S.A. 65-171f K.S.A. 65-170d
...violates an order, or a stipulated permit condition, AND damages the environment. (For example, a fish kill.)	...hold the facility liable for damages equal to the cost of restocking, replenishing, or replacing the resources.	K.S.A. 65-171u
...maintains a nuisance.	...examine all nuisances that may be injurious to the health of Kansas citizens, and may order the nuisance removed. If the nuisance isn't removed, the facility can be fined \$10 to \$100 per day.	*K.S.A. 65-159

the Department of the overflows. This operator hadn't submitted monitoring logs for three years, and had been cited for being out of compliance on every inspection for three years. (Two inspections in 1994, six in 1995, and 27 in the first 11 months of 1996). The operator was repeatedly instructed to correct the problems over the years, but the facility wasn't referred for a formal enforcement action until September 1996.

in 2 cases, we think the Department should have taken formal enforcement action, but didn't. One of the facilities identified in the early 1990s as polluting the Herington Reservoir refused to make needed changes. The operator said he wasn't interested in doing anything, and would continue to feed cattle at the current site until he was shut down. The Department has taken no action against this operator. (This facility wasn't in our sample because the operator hadn't applied for a permit.)

In the second case, an operator was told over a period of four years to remove cattle from a pen that drained to a nearby watercourse and to submit plans for waste control. The operator would move the cattle when told to do so, but later would move them back into the pens. The operator never submitted acceptable waste control plans, but after four years stopped using the pens in question. This operator subsequently was cited on two occasions for allowing contaminated water from a pit silo to flow into a road ditch. The Department's district management officials worked with him to devise a plan to keep silage out of the ditch, which appears to have succeeded. This operator has never had a permit or certificate from the Department, and could have been fined for operating without a permit.

If problems aren't corrected after repeated direction to do so, the regulatory agency needs penalties that are commensurate with the severity of the problems identified, and that increase with subsequent violations.

The Department has only taken 13 formal enforcement actions since 1992. The Department has a system of increasing penalties in place. However, its policy is to avoid adversarial approaches and encourage voluntary compliance. Because of this policy, it is likely the system of penalties doesn't serve as an effective deterrent because formal orders with fines are rarely issued. The following table shows the amount of fines ordered since 1992 and the amount of fines collected.

**Summary of Penalties from 1992 to 1996
Total Levied=13**

Year	Penalty Requested	Penalty Paid	Comments
1992	none	\$0	
1993	\$3,750	\$3,750	
1993	\$1,686	\$1,686	
1993	\$5,880	\$5,880	
1993	\$2,650	\$2,650	
1993	\$2,650	\$0	Facility bankrupted-case closed
1993	\$2,500	\$0	Facility bankrupted-dismissed
1993	\$1,000	\$0	Facility had no assets-no payment
1993	\$5,000	\$2,500	Fine reduced
1994	\$1,250	\$0	Quit business-dismissed
1994	\$5,340	\$5,340	
1995	none	\$0	
1996	\$25,000	\$0	Still under appeal
1996	\$26,000	\$0	Still under appeal
1996	\$12,000	\$0	Order mailed to operator in December 1996
TOTALS	\$94,706	\$21,806	

Given the information we found in the files, such as operators not submitting monitoring logs for long periods of time, operating without permits, and having repeated permit violation, it appears the Department needs to take stronger action to get some operators' attention and bring them into compliance with State laws, regulations, and policies.

Conclusion

The regulatory process for protecting the State's water resources from pollution caused by confined-feeding facilities has serious weaknesses that need immediate attention. Under the current system, the Department has relied heavily on the industry to voluntarily comply with

regulations, and to provide the information it needs to regulate. That heavy reliance on the industry hasn't produced acceptable results, and the Department hasn't ensured that permitting requirements have been met, that feeding operations have operated with valid permits, and that operators submit required monitoring reports. The Department also hasn't established the types of procedures it needs to ensure that all these things happen. In addition, the Department appears to be slow to respond when it becomes aware of facilities that repeatedly violate its regulations. Water is one of the State's most valuable resources, and once polluted it can take many years to clean up. To-date, Kansas has been able to avoid some of the major lagoon failures experienced by Iowa and North Carolina. However, contamination problems that could be starting now won't show up for many years, particularly if groundwater deep below the surface is involved.

Recommendations

1. To ensure that all feeding facilities that represent a pollution threat to the State's water resources are identified and required to obtain a permit and operate within Department regulations, the Department should:
 - a. Develop procedures for identifying facilities that haven't registered with the Department but that need to be evaluated for pollution potential.
 - b. Develop a definition for the term "significant potential for pollution."
2. To ensure that confined-animal-feeding facilities are constructed in a manner consistent with State laws and regulations, and to help minimize the likelihood that these facilities will pollute the State's surface and groundwater, the Department should do the following:
 - a. Incorporate its design standards for building animal-waste lagoons in the Kansas Administrative Regulations, and clarify with its staff that these are requirements, not guidelines. The Department also should require that the rationale for any deviations from those standards allowed by Department engineers is fully documented.
 - b. Develop a formal system that requires its staff to review each facility's file and determine that all tests, inspections, certifications, and other requirements have been met by the operator before a permit is issued.
3. To ensure that confined-animal-feeding facilities continue to operate according to law and regulations after their initial permit has been issued, the Department should do the following:
 - a. Develop a plan to identify and inspect all confined-feeding operations that are past due for inspections and ensure that in the

future its staff inspect each facility at least as often as required by Department policies.

- b. Ensure that staff promptly investigate all complaints about confined-feeding facilities, and inform the complainant of the outcome.
 - c. Develop a system for tracking complaints and violations to show which ones have been addressed, and which ones remain unaddressed.
 - d. Ensure that when regular inspections or complaint investigations uncover violations, there is either a visual inspection or adequate documentation submitted to the Department within a reasonable time to show that the violation has been corrected.
 - e. Ensure that applications for renewal permits are thoroughly investigated, and a site inspection has been recently made to identify any changes to the facility that might prompt the Department to place additional requirements (or remove existing requirements) from the facility's permit to operate. To accomplish this, the Department should determine how far in advance renewal applications need to be submitted so an investigation can be completed and the new permit issued before the facility's existing permit expires.
 - f. Ensure that feeding facilities submit monitoring logs when due, that Department staff understand the importance of reviewing those logs, and that staff follow up on a timely basis when the logs indicate potential problems at a facility.
 - g. Follow up on facilities shown in this audit to be operating contrary to Department standards or regulations, and take corrective action where needed.
4. To ensure that confined-feeding facilities that violate the Department's regulations have an incentive to take the required corrective action, the Department should apply penalties that are timely, consistent, and increasingly severe to fit the magnitude of the violation or the length of time it has gone uncorrected.
 5. To ensure that neighbors and others potentially affected by the proposed construction of a confined-animal-feeding operation have adequate knowledge about the facility, and have an opportunity to voice any complaints or objections, the Department should reassess its public notification procedures to come up with a workable means of notifying affected citizens who aren't likely to be reached by its current procedures. As part of the notification process, the Department should consider providing a brochure that outlines the kinds of comments it can and can't consider.

Does the Department Have Sufficient Staff and Regulatory Authority To Protect the State and Its Citizens From Pollution and Nuisances Caused by Feedlots, Dairies, and Confined-Feeding Operations?

We concluded the Department needs additional staff resources to carry out all the activities it should be doing to adequately protect the State's water. Some tasks currently aren't being done, and other tasks aren't being done as thoroughly as they should be. We also found that the Department's regulatory authority regarding pollution and nuisances generally is adequate. However, its authority to regulate dust and odor problems is difficult to implement without some objective way to measure odors or to isolate the amount of dust caused by a certain source. None of the other states we contacted regulated these areas either. These and related findings will be discussed in more detail in the sections that follow.

The Department Doesn't Have Enough Staff To Adequately Protect the State's Water From Pollution Caused By Animal Wastes Produced by Confined-Feeding Operations

The agricultural-waste program currently has eight full-time-equivalent staff in the field and two staff in the central office. The central office staff provide technical assistance to the field staff and work on the more difficult facilities. They also respond to public comments the Department receives, and do other related administrative tasks. Our reviews for this question focused only on the field staff, who are actually responsible for carrying out the program. (See the organization chart on page 9 of the Overview.)

To determine whether these staffing levels were sufficient, we made a list of all the major tasks district-office staff should perform to adequately regulate confined-feeding operations, whether they were doing them or not. We also interviewed staff and management in the central office to get estimates of how many times they perform each task in an average year, and how long it would take to accomplish each of those tasks if it were done thoroughly.

Based on those estimates, we computed the number of field staff it would take to carry out the program. That information is shown in the table on the following page. The items with a √ are those tasks that aren't being done currently, or aren't being done as completely as they should be, as described in question one.

The table shows that about 4 additional full-time-equivalent staff would be needed to carry out the Program's field activities on an on-going basis.

There also is a backlog of work that requires additional staff resources at least on a temporary basis. The numbers on the table are estimates for normal, on-going operations given the number of confined-feeding facilities registered with the Department at the time of this audit. However, the Department also has a large backlog of new and renewal applications and permits to process.

The backlog of new applications was brought on by Senate Bill 800. As noted earlier, to meet the deadlines contained in this law, more than 1,300 facilities registered with the Department. Officials estimate about 600 of those will need permits.

Although the Department has conducted site appraisals for each of the newly registered facilities, before any permits are issued Department staff will have to review applications and plans, conduct a construction inspection, and draft the permits for each facility.

**Estimates of Staff Needed to Run the
Agricultural Waste Regulatory Program**

<u>Major Tasks</u>	<u>Number Per Year (a)</u>	<u>Avg. Hours To Complete</u>	<u>Total Staff Hrs. Per Year</u>
Site Appraisals	549	4.0	2,196
Application and Plan Reviews	157	9.0	1,413
Drafting Permits	178	2.8	498
Inspections			
√ Routine	2,159	1.9	4,102
√ New Construction/expansion	157	2.8	440
√ Renewed Permits	494	4.0	1,976
√ Reviewing Monitoring Logs	4,176	.5	2,088
√ Processing Permit Renewals	494	5.3	2,618
√ Identifying Facilities to be Regulated	unknown	unknown	unknown
√ Investigating and Handling Complaints	91	2.4	218
Public Outreach Activities (public meetings, etc.)	62	3.6	223
√ Enforcement actions	12	9.0	108
Technician travel	—	—	3,285
Technical support	—	—	2,101
General Administration	—	—	932
Total hours/year		22,198	
No. FTE needed (at 1,808 hours/year)		12.3	
No. FTE currently assigned		8.0	

(a) We increased the annual workload estimates to account for the effects of SB 800, which resulted in 1,360 new registrations, and which will likely add another 600 permitted facilities for the Department to oversee on an on-going basis.

The backlog of renewal permits to process was brought on when the Department made renewing permits a low priority. (See discussion on page 17). For a backlog of more than 1,000 renewals (as of July 1, 1996), the Department needs to inspect the facilities, review operations and plans, and process the renewal permits. For the older facilities, the entire renewal process can take as long as an estimated 11 hours, or nearly a day-and-a-half of work. The discussion on page 17 also points out that the Department is shortcutting that process by not conducting site appraisals on the renewal applications, but is instead relying on information from the permittee about current operations, and essentially re-drafting the previous permit with little additional review.

The need to catch up on these backlogs will take away from the existing staff's ability to do on-going regulatory work. We estimate that, if the Department continues with the short-cut method on the renewals and does all the work associated

with Senate Bill 800, it would take about five additional full-time-equivalent staff to catch up in the next year. On the other hand, if the Department also did site appraisals for the renewals and reviewed operations to ensure they continue to be appropriate, it would take an additional 5.5 full-time-equivalent staff over the next year, or a total of 10.5 additional staff. These additional staff resources would be needed only on a temporary basis.

The Department Has Requested Additional Staff In Its Fiscal Year 1998 Budget

The Department has recognized its staffing limitations. For fiscal year 1997, Department officials have requested 3.0 additional district office staff to establish a satellite office in southwest Kansas. According to the Department's budget, having these additional staff would reduce travel time and costs, and increase field staff's ability to conduct on-site inspections for more regulated facilities. The Department also is requesting an additional 9.0 staff in its fiscal year 1998 budget. According to Department officials, these staff include six field office staff (one in each district) and three central office staff.

One option for paying for these additional staff would be to increase fees. As noted in the Overview, the Program generates annual registration and permit fees of only about \$120,000. By having the regulated industry pay more and dedicating those additional fees to the Program, the State could be in a better position to ensure its waters are better protected from livestock waste pollution.

The Department Generally Has Sufficient Authority To Protect the State and Its Citizens from Pollution and Nuisances Caused by Confined-Feeding Operations

To have an effective regulatory program one or more agencies in the State need to have the authority to do the following:

- establish standards that regulated entities must follow to be allowed to operate
- monitor facilities to ensure they comply with those standards
- demand corrective action if the facilities don't comply with those standards
- impose sanctions on those facilities that fail to correct problems once they have been notified

In Kansas, State law makes the Department of Health and Environment responsible for each of these functions when it comes to regulating waste from feeding operations or controlling air pollution from dust and odors.

The Department's authority to regulate animal wastes from confined-feeding operations comes from statutes specifically directed at those types of facilities. Generally, that authority can be found in K.S.A. 65-159 through K.S.A.65-171. (The chart on page 22 summarizes some of the Department's regulatory authority governing wastes from animal feeding operations.)

Different Groups We Talked With About Confined-Feeding Operations Had Very Different Opinions About Them

To gather industry opinions concerning the Department's regulation of confined-animal feeding operations, we talked with several agricultural producers groups, including the Kansas Livestock Association, the Kansas Farm Bureau, and the Kansas Pork Council. None of the producer groups had major concerns about the Department's regulatory authority. Each producer group thinks the Department has adequate staff, and none of them had major complaints about the frequency of inspections. But each group mentioned concerns about losing valuable staffing time responding to issues the Department can do nothing about, such as frivolous complaints, neighborhood disputes, and local zoning issues. Officials from both the Kansas Farm Bureau and the Kansas Pork Council think the permitting process takes too long, but both groups acknowledged the process seems more efficient now than it has been in the past.

We also talked with several people who lived near confined-feeding operations, and asked them if they had any concerns about the Department's regulation of such facilities. They told us the Department often is aware of specific instances of pollution, but ignores the violations because political pressure and economic development are involved. These people also said the Department doesn't appear to enforce its own laws and regulations, but didn't think that inadequate staff was the problem.

One of the selling points for the large confined-feeding operations was that such operations would increase economic development as producers employed people from the community and bought grain and other products from nearby farmers. One industry official and some citizens told us these expected benefits hadn't been achieved. In particular, some people noted that some feeding operations brought in people to run the facilities, rather than provide jobs for local people.

One person pointed out that the confined-feeding operations are made aware of what's required by law because the Department gives them a brochure outlining what the facility needs to do to comply. However, because the neighbors of the proposed facility aren't given such a brochure, they don't know what the facilities can and can't do.

We also talked to two facility operators, who had mixed opinions about the Department's regulatory efforts. One thought the Department's inspection frequency and lagoon seepage standards were about right, while the other thought the State would benefit from more frequent inspections and a more stringent seepage rate. Both said the permitting process was excessively slow.

Based on our review of these statutes and our discussion with Department officials and other knowledgeable parties, we concluded that, the Department's regulatory authority in this area appeared to be sufficient. The Secretary of Health and Environment has adopted regulations under which animal-feeding operations must operate to obtain a permit. The Department can monitor compliance with those regulations through inspections, or by requiring facilities to submit monthly monitoring reports. The Department can issue orders requiring operators of confined-feeding facilities to correct violations, and if those violations aren't corrected, it can impose sanctions by levying fines or revoking the operator's permit.

The Department's authority to regulate dust and odors is contained in the State's air quality statutes which aren't specifically directed at animal feeding operations, but are broad enough to include them. These statutes, called the Kansas Air Quality Act, can be found beginning at K.S.A. 65-3001. The Act is designed to protect the State's air quality from pollution, which is defined in the law to include such things as smoke, fumes, vapor, dust and odorous substances. Air pollution means one or more air contaminants are present in the outdoor atmosphere long enough and are concentrated enough to be injurious to human health or welfare, animal or plant life or property or unreasonably interfere with the enjoyment of life or property. The following table summarizes some of the key elements of the Department's authority in this area.

The Department's Authority for Regulating Air Quality in Kansas

The Department can.....	Statutory Authority
...adopt rules and regulations governing air pollution.	K.S.A.65-3005(a)
...determine the degree of air contamination and air pollution in the State.	K.S.A. 65-3005(k)
...establish ambient air quality standards for the State.	K.S.A. 65-3005(l)
...classify air contamination sources that cause or contribute to air pollution, and require reports about such air pollution sources.	K.S.A. 65-3007
...inspect any property, premise, or place for the purpose of investigating an actual or possible source of air pollution, or of determining compliance with State law.	K.S.A. 65-3009
...enforce the air quality laws and regulations through issuing corrective orders and by other appropriate means.	K.S.A. 65-3011
...impose penalties of up to \$10,000 per day for violations of orders, rules, or regulations.	K.S.A. 65-3018

Although the Department has the authority to regulate dust and odors, this authority may be meaningless without some way to measure odors and isolate how much dust is caused by a specific source. An official from the Department's legal staff told us that the Department hasn't developed regulations in this area because trying to come up with regulations for dust and odors is very difficult. There apparently aren't any objective scientific standards to measure dust and odors and determine when they are too offensive.

With dust there also can be problems in determining the source. For example, most confined-feeding operations are in rural areas near farm fields and unpaved roads. If there is a dust problem, it can be difficult to isolate whether it is coming from the feeding operation, the fields, or the roads. The Department can enforce general ambient air quality standards; an example is shown in the profile on the next page.

Department officials told us that in the mid-1980s, they had some regulations governing what they called "fugitive" dust. Fugitive dust included dust created by cattle walking around feedlots. However, those regulations were repealed in about 1987 because they were unenforceable given the lack of a scientific way to say how much of the dust came from the feedlot or other sources.

No standards for odors ever have been in State regulations. The Department requires animal-feeding operations to be located a certain distance from dwellings as its primary tool to control potential odor impacts from confined-livestock feeding facilities. Before 1994, the Department recommended minimum separation distances

Dust Problems in Deerfield

The City Administrator in this town in northwest Kansas told us his town had experienced a problem with dust since about 1989. He said at that time, a nearby feedlot was sold to a new owner and expanded from 15,000 head of cattle to 45,000 head. The feedlot currently is in the process of renewing its permit. According to the City Administrator, city officials sent a letter of protest to the Department in July 1996 as part of the public notice process, but haven't heard anything back yet.

City officials told us they had complained about the dust problem in the past, but had gotten nowhere with the Department. Department officials told us there are no specific State statutes or regulations pertaining to dust from feedlots. However, Kansas has adopted general air quality standards that have been promulgated by the federal Environmental Protection Agency.

In response to the City's complaints, the Department has installed a dust collector on top of City Hall. Department officials told us this is its first attempt to monitor air quality related to a potential feedlot problem. The agency will test the dust to see if it contains metals, feed, nitrates, and the like. The testing is done for 24-hour periods every three days, and is expected to last for a year.

If the results show the air quality doesn't meet the federal standards, the Department will have to develop a plan to bring the area into compliance. This planning effort would begin at the county level, and would be focused on identifying all the potential sources of dust, including the feedlot, unpaved city streets, and the like. If the feedlot is found to be one of the sources of the problem, the Secretary could require corrective action.

in its design standards. During the 1994 legislative session, Senate Bill 800 was signed into law and established required separation distances between newly constructed or expanded livestock facilities and habitable structures.

If a source of odors is found to interfere with the enjoyment of life and property, the Department can issue an order requiring the control of the odor. Remedies for nuisance odors can still be pursued through private litigation. By statute (K.S.A. 65-159), the Department can examine all nuisances that may be injurious to Kansas citizens, and if a nuisance does exist the Department has the authority to have it removed.

In addition, the Department's design standards manual contains a number of treatment and waste management strategies that facilities can voluntarily implement to reduce problems with odor and dust.

The majority of other states don't specifically regulate odors or dust. None of the eight other states we surveyed specifically regulate odors or dust from confined-livestock feeding operations. In general, these states told us no standards or criteria existed to help them regulate confined-feeding facility dust or odors.

Oklahoma said it has the power to regulate odors if the odors are a result of the mishandling of waste. However, if a facility is licensed, it is presumed the facility is using good management practices and the odors are not a result of mishandling waste. Similarly, in Iowa, if the facility has all permits required by applicable law, it is presumed

the facility is not a public or private nuisance.

Of the eight other states we contacted, four rely on local zoning laws and don't have specified separation distances for regulating dust or odors.



Lagoons aren't always neat and tidy. The lagoon at left, in southwest Kansas, had a lot of municipal wastes in it, as well as a dead hog. This kind of unsightliness undoubtedly contributes to concerns about confined-feeding operations.

The picture below shows hogs on an open lot, rather than in a confined-feeding facility. This particular facility doesn't have a permit but, according to a Department Bureau of Remediation study, may pollute a nearby creek. Field staff told us this operation is a low priority, and they haven't yet required it to get a permit.



Conclusion

The Department appears to have all the statutory authority it needs to regulate confined-feeding operations to prevent water pollution, and to control nuisances such as dust and odors. To-date, it has focused its efforts on controlling water pollution—rather than on trying to deal with problems of odor and dust—because of the difficulty involved in establishing standards and measuring the amount of dust created by a specific source. With the limited staff it has available for the Program, the Department has had to rely on the industry to police itself to a certain extent, and it can't adequately carry out the things it needs to do to make sure confined-feeding operations are operating according to laws and regulations. The Department may need to further study whether additional regulations governing dust and odors are warranted, and how it might be possible to implement them.

Recommendations

1. To ensure the Department's animal waste control program has enough staff to carry out the functions needed to adequately protect the State's water resources, the Senate Ways and Means Committee and the House Appropriations Committee should seriously consider the Department's request for additional Program staff in its fiscal year 1998 budget request.
2. To ensure that the cost of regulating confined-feeding operations doesn't become a burden on the State General Fund, the Department should determine the full cost of adding sufficient staff to the program, and seek the support of the Legislature to adjust registration and permit fees to the level needed to defray those costs.
3. The Department should further study whether it needs to issue regulations governing dust and odors generated by confined-feeding operations. In doing so, it should consider such things as the number of complaints it receives about these issues, lawsuits filed against confined-feeding operations in which dust and odors were an issue, and any other relevant issues. It should report its findings back to the Legislative Post Audit Committee before the start of the 1998 Legislature.

APPENDIX A

Standards for Handling Human Wastes Compared With Those for Animal Wastes

Standards for human and animal waste control are fairly similar, but there are a couple of key differences because of how the waste is handled.

Both human and animal wastes can be stored in lagoons. Hog waste typically is placed in an "anaerobic" lagoon. This means it doesn't have oxygen in it. In this type of lagoon, the bacteria found in the wastes help treat the wastes. Human wastes are much more diluted because they are flushed through the sewer system. As a result, the human wastes don't have enough bacteria to be treated in an anaerobic lagoon. More typically, human wastes are stored in an "aerobic" lagoon, which is more of a holding facility, rather than a treatment facility. As the table below shows, liquid from the lagoons for both human and animal wastes can't seep out of the bottom by more than 1/4 inch per day.

One of the other key differences between the two types of wastes is that animal wastes generally don't have to be treated, while human wastes do. The reason: human wastes frequently are discharged into the State's rivers, and have to meet certain federal water quality standards before they are discharged. Animal wastes aren't discharged unless a lagoon overflows because of unusual rains, or because the lagoon wasn't properly maintained.

The following table compares various standards for animal and human wastes.

<u>Standard</u>	<u>Animal Waste</u>	<u>Human Waste</u>
Distance to groundwater	10' from bottom of lagoon	10' from bottom of lagoon
Distance to surface water	100' to water supply wells & reservoirs; 50' to rural water district lines	not specified
Discharge allowed?	generally, no*	yes, after treatment
Seepage standards	1/4 inch per day	1/4 inch per day
Type of liner required	not specified as long as seepage standard met	not specified as long as seepage standard met
Storage capacity	120 days for run-off retention facilities (for storage); 180 days for waste-treatment lagoons	120 days detention time for adequate treatment for a discharging lagoon; for non-discharging, the facility is designed for a 20-year life cycle
Treatment required?	generally, no	yes
Freeboard requirements (distance between water surface and top of berm)	2'	2' to 3'
Separation requirements	<ul style="list-style-type: none"> •100 ft. from property lines •300-999 animal units: 1/4 mile •1,000+ animal units: 4,000 ft 	<ul style="list-style-type: none"> •100 ft. from property lines •350-1,000 ft. from existing habitations •350-1,000 ft. from proposed development
Land application	yes, any crops, no treatment (KDHE could provide the conditions under which the irrigation would be considered acceptable)	yes, but not on crops humans eat directly; also, treatment required because humans may be exposed to waste (to kill pathogens) and to stabilize the wastes to minimize the potential for nuisances

*in a few cases, a small agricultural facility will be allowed to discharge to a grass filter, which provides some secondary treatment of the waste. Discharge must not cause violations of water-quality standards.

APPENDIX B

Selected Information About the 41 Facilities We Reviewed

This appendix lists the 41 facilities in our sample, along with the county in which they are located, the type of animal they have a waste control permit for, and the number of head for which they are permitted. The type of application (new permit, renewal, expansion, or certificate) also is shown. Two facilities in our sample (C.B. Finisher #1 and S&S Cattle) were reviewed twice, because they applied for both a new permit and an expansion during the timeframe we reviewed. Finally, the appendix identifies the Department's failure to follow its permitting, monitoring, or enforcement processes for each facility, and lists the number of complaints received about the facility.

Name of Facility	Co.	Type of Animal	Number of Head	Type of Application	The Department didn't follow these processes for the facility:			Number of Complaints
					Permitting Process	Monitoring Process	Enforcement Process	
Atkinson, Marion	CK	Turkeys	66,000	New	√			2
C.B. Finisher #1	FN	Swine	980	New	√		√	6
Hansch, Ronnie	MN	Cattle	995	New	√			
Jerry D. Adams	MC	Cow/calf	125	New		√		
K&S Ferguson	SM	Dairy cows	450	New	√	√		
Koop, Kim	MN	Cattle	950	New	√	√		
Long Branch Farms	CK	Turkeys	33,000	New	√			
McClure, Craig	BJ	Cattle	100	New	√		√	2
Meier Dairy	WS	Dairy	1,898	New	√			
Meyer Land & Cattle II	LC	Cattle	1,000	New	√	√		2
R&M Losey	PL	Cattle	980	New	√			
S&S Cattle	CN	Cattle	5,000	New		√		
Seaboard # 112	GT	Swine	9,600	New	√			
Seaboard #238	ST	Swine	6,480	New	√			
SW Pork, Ltd.	GY	Swine	19,200	New	√			
Triple K	KM	Dairy cattle	400	New	√			
Tuls Dairy Farm	SW	Dairy	2,500	New	√	√	√	
Akers, Wayne/Barb	MI	Dairy cattle	70	Renewal	√	√		
Amershek Dairy	CR	Dairy cattle	150	Renewal	√			
Augustine, Galen	GH	Dairy	70	Renewal	√	√	√	
Ben Aberle & Sons	BR	Cattle/swine	300/400	Renewal	√	√		
Cattlemen's Inc.	FN	Cattle	30,000	Renewal	√	√		1
Johnnie E Redding Jr	CF	Swine	950	Renewal	√			
Lippert Livestock	CY	Swine	300	Renewal	√	√		
Martin Feedlot	SD	Cattle	990	Renewal	√			
Meyer Land & Cattle I	LC	Cattle	4,950	Renewal	√	√	√	8
Morrell, Dan	LN	Swine	750	Renewal	√		√	
Nelson, Jim	MP	Swine	420	Renewal	√	√		
R&L Feeders	OB	Cattle	3,000	Renewal	√		√	
Smith Brothers	MT	Cattle	2,999	Renewal	√	√		
Southfork Farms	JF	Swine	500	Renewal	√	√		
Strickler Holstein	AL	Dairy cattle	400	Renewal	√		√	3
C.B. Finisher #1	FN	Swine	2,499	Expansion		√		
Carter Creek Dairy	WS	Dairy cattle	700	Expansion	√	√		
Parker Hog Farms	BR	Swine	15,000	Expansion	√	√	√	3
S&S Cattle	CN	Cattle	8,000	Expansion				
Bar S Ranch	RS	Cattle	500	Certificate				
Cahoj Farms	RA	Cattle	800	Certificate				
Koehn, Clayton	HV	Poultry	50,000	Certificate		√		
Raymond, Russell	NM	Poultry	10,000	Certificate		√		
Sunny Slope Farms	DG	Dairy cattle	100	Certificate		√		

APPENDIX C

A Summary Of Other States' Regulatory Programs For Confined Livestock Feeding Facilities

To compare Kansas' regulatory program, we contacted a number of states including the four neighboring states: Oklahoma, Nebraska, Missouri, and Colorado. We contacted four additional states based on their dealings with confined livestock feeding facilities. Iowa and North Carolina had documented problems with earthen waste storage structures and Minnesota and Wisconsin are said to have model animal waste regulatory programs.

Selected Other States' Regulatory Programs

	KANSAS	MINNESOTA	NORTH CAROLINA	WISCONSIN
GENERAL PROGRAM INFORMATION				
<i>Total FTE's</i>	9.5	19	23	36.5 (30 are for the priority watershed program)
<i>Annual Budget (*salary info only)</i>	\$450,000*	\$1 million (GF mostly), plus \$855,000 in county grants	\$1,016,000*	\$9 million (\$7.5 m is the priority watershed program)
<i>Type of permits:</i>	State/Federal	State/Federal	State/Federal	State/Federal
<i>State Permits:</i>	1,521 and 647 certifications	20,000 (500 interim, 30 permits, 19,000 cert.)	4,000	2 (<1,000 animal units)
<i>Federal Permits:</i>	350	20 (expecting 550 more after issuing federal general permits)	0 (non-discharging)	58 (>1,000 animal units)
•PERMITTING PROCESS				
<i>Method for identifying potential permittees:</i>	Honor system and complaints.	Complaints, and when an investment is made at the site, the owner must apply for a permit.	Works with Ag agencies, NRCS, soil and water agencies, ext. service, and complaints.	Complaint driven for facilities < or > than 1,000 animal units. Inventories taken in the planning phase of the watershed program.
<i>Permits are required for:</i>	Facilities with pollution potential or pollution control facilities and facilities with >1,000 animal units.	Facilities with >50 animal units and pollution potential.	Facilities with >250 hogs or 100 dairy cattle or 30,000 poultry (with a wet facility), must have a permit (by end of 1997).	>1,000 animal units or if noncompliance with a corrective order or noncompliance by a critical site in the priority watershed program.
<i>Inspection before construction?</i>	Yes.	No.	Technical specialist signs off.	Sometimes.
<i>Permit application review time:</i>	3 months.	8 weeks at agency level.	90 days, after that approved by default.	3-6 months.
<i>Inspection/ signoff before permit issued?</i>	No	Not usually.	Technical specialist signs off.	Yes.
<i>Public notice required/Public comments considered?</i>	Yes, for both State and federal permits.	Yes, for federal permits and for 5 year state permits.	If NRCS, comments will be considered before coverage under general permit.	Yes.
•MONITORING PROCESS				
<i>Routine on-site inspections?</i>	Required, but not always done.	Trying to. Most are complaint or permit application driven.	Once per year if over 250 hogs, 100 cattle, or 30,000 poultry with a wet system.	Rarely for <1,000 animal units. Rely on county staff to notify of problems.
<i>Follow-up (re-inspection) to ensure problem is solved?</i>	Not required.	NRCS engineers usually help, or county staff, if not, state will inspect.	Yes.	Through cost share agreement, facility agrees to follow maintenance plan for 10 years. County staff follow-up.
<i>Ability to require monitoring wells?</i>	Yes.	Yes.	Yes.	Yes.
<i>Tracking system for following-up?</i>	No.	No.	Yes.	Yes.
•ENFORCEMENT PROCESS				
<i>How does the program identify violations?</i>	Complaints, inspections, and operational reports.	Complaint driven.	Complaints, routine inspections, and works with other agencies.	Complaint driven. if fail to follow management plan (for a critical site), must reimburse cost-share moneys.
<i>Effective penalties for noncompliance to prevent repetitive violations:</i>	Has enforcement policy. Dept. policy is not to fine, but to encourage voluntary compliance.	Yes. In the very extreme, have handcuffed 2 producers with repeat severe violations.	Can fine up to \$10,000 per day if in violation. Fines are usually \$2,000 to \$5,000. Works with the attorney general.	Fines are rarely used. Priority Watershed program was voluntary; is now regulatory program.
<i>Ability to revoke permits?</i>	Yes.	Yes	Yes.	Yes. For watershed program, issues notice introducing them to the regulatory program.
<i>Facilities shut down in the last 2 years?</i>	0	A hand full.	Less than 5. Try to work with the facility to get compliance.	Several permitted facilities shut down, but not by choice.
<i>Ability to fine for failure to comply with permit?</i>	Yes, \$25 to \$10,000.	Yes, up to \$25,000 per day.	Yes.	Up to \$10,000 per day (after referral to Dept. of Justice).
<i>Amount of fines requested in last 2 years?</i>	\$51,000	\$120,000	\$50,000 to \$75,000	Rarely fines. (Fined a large facility \$10,000.)

Selected Other States' Regulatory Programs

IOWA	OKLAHOMA	NEBRASKA	MISSOURI	COLORADO
9	9	4.5	10	0.5 (non-dedicated)
\$450,000* (avg. \$50,000/position)	\$190,000*	\$255,004*	Not available.	No designated budget
State/Federal	State licenses/ delegated authority for Fed. inspections.	State/Federal	Letters of Approval/State Operating Permits (Fed.)	No permits issued.
600 (since 1989)	390 (licensed)	1389	3,000 Letters of Approval	No permits issued.
15 (open feedlots)	273	210	180	0 (non-discharging)
Complaints.	Honor system and complaints. License required for federal permits.	Honor system, local zoning laws, and complaints.	Letters of Approval are voluntary, permits required. Work w/ NRCS, Univ. ext. personnel, complaints.	Complaints.
Fed. permits: open feedlots with 1,000 animal units & discharging. State permits: depends on the storage struc., animal capacity.	License and Fed. permit if discharging.; if <1,000 animal units, no license required unless polluting;	Regardless of size, if discharging or has the potential to discharge permit required (if new).	Follow Fed. regs. Anything <1,000 animal units can voluntarily obtain a operating letter of approval.	No permits issued; but facilities with >1,000 animal units must have an operating plan
Only to verify separation distance.	Yes.	Yes.	Yes, for large facilities.	No
30-60 days to issue the permit.	20 days.	Usually takes 4 weeks.	Const. applic. take 30 days. Oper. applic., 45-60 days.	45 days. If not reviewed in that time, approved by default.
Project engineer must certify supervision of critical stages	Yes.	Project engineer must certify.	Project engineer must certify.	No permits issued.
None for confined operations, only notice is to the County Board of Supervisors. Yes for federal permits.	Notice for federal permits/ Comments from those within 1/2 mile.	Not for State permits. But local zoning laws may require notice. Federal permits require notice.	Yes for federal permits (Missouri's state operating permits); No notice period for Letters of Approval.	No permits issued.
No. But does inspect based on complaints.	Yes.	Yes.	Required. But don't because of lack of staff.	No. But does investigate complaints.
Yes, if a pollution incident, would follow up with an on-site inspection.	Yes.	If pollution problem, will re-inspect.	If pollution problem, will re-inspect.	Dept. would verify before file is closed out.
Yes.	Yes.	Yes.	Yes.	Yes.
Yes.	Yes.	Old system. New system in about 2 yrs.	Yes, cumbersome, but useful.	Only for problem facilities.
Complaint driven.	Complaints and routine inspections.	Complaint driven and inspector's knowledge of what's in the field.	Complaint driven, some identified through inspections.	Complaint driven.
Can recover damages to natural resources. Administrative penalties up to \$10,000/day.	Usually will fine between \$100 to \$1,000/day.	Can find up to \$10,000/ day for violations (discharges), plus the value of any fish killed.	Conference, consult, & persuasion before using adm penalties.	Is an extension of the permit program; depends on the severity of the violation.
Yes.	Yes.	Yes.	Yes.	Yes, but no permits have been issued.
Have ability to do so, but the burden of proof is difficult.	0	None. If a facility has shut-down, did so voluntarily.	No. Voluntary shut down only.	No.
Yes.	Yes.	Yes.	Can fine from \$750 to \$10,000 per day, civil penalties.	Yes.
\$147,000	5000 (EPA fined the facility.)	\$17,000	\$688,000 (for last 10 years.)	None. Virtually non-penalizing.

APPENDIX D

Agency Response

On January 3, we provided copies of the draft audit report to the Department of Health and Environment. Its response is included as this Appendix.

State of Kansas

Bill Graves



Governor

Department of Health and Environment
James J. O'Connell, Secretary

January 15, 1997

Barbara J. Hinton
Legislative Post Auditor
Legislative Division of Post Audit
Mercantile Bank Tower
800 SW Jackson Street, Suite 1200
Topeka KS 66612 2212



Dear Ms. Hinton:

We have reviewed the draft audit entitled "Reviewing the Department of Health and Environment's Efforts to Protect Water from Pollution Caused by Confined Livestock Feeding Operations." Our response is presented in two parts:

- (1) General Comments and Overview
- (2) Response to Recommendations

PART 1
GENERAL COMMENTS AND OVERVIEW

Historically, the intent of the confined animal feeding facility was the prevention of pollution of surface water. The widespread controls that have been put in place, and the corresponding success of these controls in reducing pollution, deserve recognition. The Kansas livestock waste control program was established in the late 1960s well ahead of programs in other states. The animal feeding industry has significantly expanded from about seven (7) million head in 1967 to over 20 million today without a widespread negative impact on the environment. We believe that today's heightened environmental awareness and expectations combined with this growth make it prudent policy to review both the program's successes and needs for improvement and we view this audit as one component of that effort.

Any pollution impact of confined animal feeding operations (CAFO's) is generally localized. The Kansas program for monitoring surface water measures water quality on a watershed basis. While there are specific monitoring locations within each watershed, they are not sited to monitor specific livestock activity locations. Where monitoring information might suggest a particular problem source of animal waste pollution, more investigation and study is required to pinpoint the sources. Because of the nature of the monitoring system and the protections afforded by constructed waste control facilities, the state's monitoring program is more apt to detect the nonpoint source pollution impacts of livestock. The nonpoint source impacts are not addressed through the permitting of CAFO's or feedlots. Subsequently, the Department, and other agencies, also address nonpoint source issues through nonregulatory mechanisms.

The Kansas Department of Health and Environment (KDHE) agrees with the premise that CAFO's should be inspected more frequently and in more detail. However, the audit incorrectly refers to inspection frequencies as "required." Federal regulations only require a system of inspection, but state and federal statutes and regulations do not require a certain frequency. Inspection frequencies were set by internal guidance issued to District Office staffs. KDHE reduced inspections to a lower priority in order to concentrate staff time on other priorities including site appraisals and permit applications for new facilities and to address a backlog of permit renewals. Again, we agree with the need for more frequent inspections and have requested additional resources to address this need in light of the increased numbers of regulated facilities.

The audit report notes two areas where Kansas design standards are less stringent than other states; seepage rate and water well separation. In the process of reviewing standards and developing draft regulations an independent study by Kansas State University was commissioned in September. The purpose of the study is to either confirm the adequacy of the current seepage rate limits or to provide a valid, scientific basis for modifying them. While the Kansas separation distance from a water well is at the low end of the range identified for other states, that distance has not been implicated as a problem for properly constructed and operated CAFOs. At the same time, it should be noted that the Kansas standard for distance to groundwater, a factor more directly related to seepage rate standards, is by far more stringent than other states. The Kansas requirements have been in place for many years while other states have only recently set standards. The report mentions that Kansas has avoided the type of problems seen in North Carolina and Iowa. Avoiding this type of problem has not been by accident and is in part due to the Kansas program in addition to variances in topography, soils, etc.

The audit report discusses a backlog of expired permits. For some time the CAFO program operated on the assumption that the Kansas Administrative Procedures Act (KAPA) applied to the program. This assumption was the basis for treating as still valid and in force permits that had expired where a timely renewal application had been made. When agency legal staff identified this erroneous assumption, a priority was given to eliminating the backlog, primarily to ensure that permit conditions would be enforceable if enforcement action became necessary.

The report includes a table, "A Summary of the Department's Fining Authority." (Page 22) Out of the 12 authorities cited, five citations are based on criminal convictions. Violations in these cases must rise to the level of criminal offenses. One referenced authority allows KDHE to seek restitution for environmental damages that if not paid can result in referral to the attorney general. The other authorities listed do provide administrative penalty authority. The Department has placed a priority on securing voluntary compliance, and has most often been successful, but enforcement actions or civil penalties are imposed as required and appropriate.

To this limited extent KDHE does rely on the industry. Perhaps this approach can be called an "honor system" as the report refers to it. However, it is not accurate to characterize it as only that. Many facilities permitted by the agency are smaller operations found throughout the state. It is not productive to attempt to police every detail of animal feeding operations every day and well-placed reliance on operators is necessary. To that end, the cooperation and goodwill of the operators, large and small, is needed to reduce and control pollution. In administering the program the agency will need the flexibility to require accurate and complete information when needed and to rely on the operators' good faith when appropriate. The regulatory system needs to be designed to get the correct information. The issue raised by the audit report is to what extent does the agency rely on the industry and to what extent does the agency police. We recognize this is a balance but believe that an overly aggressive approach that begins with enforcement actions and penalties will not work because it will tend to reduce the broad cooperation now present and will increase resistance to improved environmental protection.

The audit report identifies a number of areas of program administration and documentation that we agree require improvement. However, we do not agree with the conclusion that these constitute "serious weaknesses" and that the program has not "produced acceptable results." We disagree with the premise that reliance on operators is improper and misplaced when experience tells us that most operators are environmentally responsible, ethical people who most often respond positively to cooperation and technical assistance from KDHE staff. There are exceptions in this and most other human endeavors, but they are addressed with enforcement actions and should not be permitted to dictate the conduct of the CAFO program for the great majority of operators. This is not to suggest that we take the need to improve administrative, documentation and on-site inspection frequencies lightly. These are an important assurance of effectiveness and reliability and the audit report recommendations concerning them will be addressed promptly and seriously.

PART 2
RESPONSE TO RECOMMENDATIONS

The first five recommendations are listed on page 24 and 25 of the draft report. The following comments are provided on each recommendation:

- 1.a&b. KDHE has worked with producer groups and conservation districts to encourage registration. To this end, a facility review sheet, utilizing a scoring system, was developed to determine significant potential for pollution. Local programs have been encouraged and funded, primarily through nonpoint source projects and conservation district programs, to help address the small producers that should be in the program. After passage of Senate Bill 800 in 1994, the agency attended meetings, put out press releases, worked with producer groups encouraging facilities to register with KDHE. Senate Bill 800 was designed to provide an incentive and to promote voluntary registration and it had the intended result with over 1,300 facilities registering in the Spring and Summer of 1996. KDHE will promote registration through its regulatory and non-regulatory programs.
- 2.a&b. The process of circulating and seeking advisory comments on draft requirement and standards to be formally adopted as regulations began in early 1996 and will be followed through to completion. In addition to liner and monitoring requirements being studied by Kansas State, additional issues include requirements for professional engineer certification of plans and specifications and/or as-built conditions and appropriate types and frequencies of monitoring and reporting.
- 3.a. The Department intends to increase its inspections and the additional resources required have been requested. Inspection policies followed will be designed to assure that the system delivers the most effective and productive results and should incorporate the flexibility necessary to deliver those results.
- 3.b. We agree with the goal to promptly investigate and report. We agree that better documentation of complaint investigations, including appropriate responses to complainants, is necessary. We would also point out that while many complaints are valid and action is needed, some complaints are outside the jurisdiction of KDHE. Sometimes the agency's reply to the complainant must be limited due to enforcement sensitive issues. Nevertheless, we support the premise of improving the documentation and feedback.
- 3.c. KDHE agrees.

- 3.d. KDHE agrees.
- 3.e. KDHE will design a revised renewal system that gathers complete information. On-site visits to confirm the information submitted by the operator is not necessary or productive in all cases. Much will depend on the nature of the facility and the record of the operator. Flexibility and reliance on the good faith and veracity of most operators are both necessary and proper.
- 3.f. KDHE agrees.
- 3.g. KDHE agrees.
- 4. We agree with the recommendation and will implement it consistent with the Department's policy which first encourages voluntary compliance. Encouraging voluntary compliance does not mean ignoring environmental insults or serious or repetitive infractions deserving of penalties. However, KDHE's experience, as stated above, is that more rapid real progress toward compliance can be achieved by offering guidance, information and technical assistance first, resorting to penalties in the relatively few cases of refusal to comply. The positive approach is not only inherently more effective, it also results in less administrative and legal costs and delays.
- 5. The Department will examine the public notice process to improve accessibility and breadth.

In regard to the performance audit's assessment of KDHE's authority to regulate dust and odors, the Department agrees, in general, that its statutory authority to regulate sources of air pollution in Kansas is broad. The need for broad authority in this area results from the complexity of the federal air quality program and the authorities required to assure that Kansas maintains a federally-approved state air program. There are, however, several important statutory qualifications to these authorities that have relevance to the development of dust and odor programs that were not specifically discussed in the audit report.

The first involves the authority of the Department to require the abatement of nuisances under the provisions of K.S.A. 65-159. This statute does not apply generally to nuisances, but requires that the Department demonstrate such nuisances to be "injurious to the health (emphasis added) of the inhabitants. . . ." While odors may be more or less offensive to individuals, injury to health from odors is difficult if not impossible to demonstrate. Fugitive dust may be detrimental to health of some particularly sensitive or predisposed persons, but again it is extremely difficult to support a nuisance action on this basis. Where such action is supportable and necessary, the Department will not hesitate to use the authority. However, its application is much more limited and restricted than the report language implies.

Secondly, the provisions of the Kansas Air Quality Act (K.S.A. 65-3001, et seq.) were enacted primarily for the purpose of assuring compliance with the federal Clean Air Act in Kansas. The federal air program requirements applicable to the states do not require the development of nuisance dust and odor programs. While such state-specific air programs are not prohibited under the Kansas Air Quality Act, the Department has, traditionally, been held to a high standard through the administrative regulation process for justifying the need to expand the Kansas air program requirements into areas that extend beyond the federal program. The Kansas Air Quality Act also contains provisions that "encourage local units of government to handle air pollution problems within their respective jurisdictions" where many nuisance dust and odor problems can be most effectively resolved. In its initial enactment of the Kansas Air Quality Control Act in 1967, the Legislature included a "Declaration of policy and purpose" that remained a part of the Act until 1993. We understand its deletion then resulted from a general intent to eliminate policy and purpose statements from statutes. The Declaration may still be a reliable indicator of legislative intent. Except for protection of human health and safety, the policy adopted seems to mitigate against an expansive application of the statute and calls for a balancing of potentially competing interests and a balancing of state versus local authority and responsibility. Finally, K.S.A. 47-1505 provides that feedlots operated in accordance with the standards and regulations of the livestock commissioner are deemed to present prima facie evidence that a nuisance does not exist.

The statutory and legal issues surrounding regulation of dust and odors noted here, when combined with the extreme technical difficulties discussed in the report, render such control and regulation essentially impossible except where there is a clear, demonstrable threat to human health of inhabitants. These are the reasons why neither Kansas nor any of the other states surveyed regulate odors or dust in the CAFO programs. We concur with the conclusion that further study regarding dust and odors is necessary. That study and the development of useful technology and standards may make regulation feasible in the future. We do not agree that the statutory authority, except for situations threatening to human health, is available as described in the report and future legislation may be required after feasibility questions are answered.

Regarding the three recommendations on page 33, the following is offered:

1. KDHE agrees.
2. Determination of the source of funding to support CAFO program costs, whether State General Fund or other sources, is a public policy determination that KDHE believes should be made by the elected representatives of Kansas.
3. As noted above, KDHE agrees that dust and odor issues require further study, and certainly not limited to just the number of complaints received.

Barbara J. Hinton

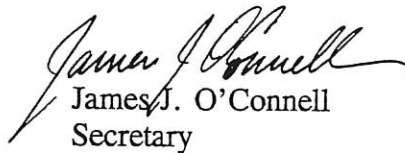
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January 15, 1997

KDHE staff have already undertaken a detailed review of the audit report and have begun to research our files in preparation for prompt follow up on those deficiencies cited in the report regarding administrative procedures and individual facilities. While this review has revealed some factual inconsistencies, they are not significant in the context of the report as a whole and are not considered material to our response.

Thank you for the opportunity to review and comment on the draft report. Please call on us if further information is needed.

Sincerely,


James J. O'Connell
Secretary

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Attachments