Approved: 2-21-96

MINUTES OF THE SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES.

The meeting was called to order by Chairperson Don Sallee at 8:00 a.m. on February 15, 1996 in Room 254-E- of the Capitol.

All members were present except:

Senator Vancrum, Excused

Committee staff present: Raney Gilliland, Legislative Research Department

Dennis Hodgins, Legislative Research Department

Ardan Ensley, Revisor of Statutes Clarene Wilms, Committee Secretary

Conferees appearing before the committee:

Senator Stephen Morris

Don Carlson, Chief, Industrial Program Section,

Division of Environment/Bureau of Water, KDHE

Diane K.Coe, Southwest Kansas Groundwater Management, District

James D. Sipes, High Plains Concerned Citizens Coalition

David Walker, Stanton County, Kansas

Mike Smith, High Plains Concerned Citizens Committee

Written testimony only by Robert and Mary Lou Figgins, Manter, Kansas

Written testimony only by Morton County Committee for Responsible Government Written testimony only by William Craven, Sierra Club and Kansas Natural Resource

Council

Mike Jensen, Kansas Pork Producers Council

Others attending: See attached list

SB 604--concerning water pollution control; relating to swine confined feeding facilities

Senator Stephen Morris told members of the Committee that rapidly expanding hog population in Southwestern Kansas had resulted in a number of problems, especially waste lagoons in sandy soil locations, therefore he had requested <u>SB 604</u>. Other portions of the bill deal with plan preparations, certification, possible abandonment and monitoring for contamination of ground water (<u>Attachment 1</u>).

Donald Carlson, Chief, Industrial Program Section, Division of Environment/Bureau of Water, presented testimony in support of <u>SB 604</u> (<u>Attachment 2</u>). Mr. Carlson told the Committee that the number of facilities handling animals continue to increase in size, therefore Kansas needs to institute measures to avoid problems experienced by other states.

Mr. Carlson's testimony outlined requirements of <u>SB 604</u> and elaborated on ways the bill would enable KDHE to provide proper supervision of such projects. Also included in <u>Attachment 2</u> was a balloon bill of several changes suggested by the Kansas Department of Health and Environment.

Diane K. Coe, Hydrogeologist of Southwest Kansas Groundwater Management District, appeared and presented testimony in support of <u>SB 604</u> (<u>Attachment 3</u>). Ms. Coe told committee members of frequent calls from concerned citizens as well as county commissioners about animal confinement facilities.

Ms. Coe set forth several areas of concern in her testimony and stated "the District supports the concept of protecting the quality of our groundwater resources". She also told the Committee that the District was in the initial states of researching the impacts of various waste disposal activities on the groundwater resources because it recognizes the value of water quality to the overall economic stability and health of the region.

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, ROOM 254-E-Statehouse, at 8:00 a.m. on February 15, 1996.

James D. Sipes, High Plains Concerned Citizens Coalition, Johnson, Kansas, appeared in support of <u>SB 604</u> (<u>Attachment 4</u>). Mr. Sipes told the Committee Stanton, Morton and Stevens counties have allowed corporate farming but were totally unprepared for the magnitude and hazardous potential of the operations and that small population and county budgets do not allow enough money to clean up any fiduciary responsibilities of a mishap of the facilities.

Mr. Sipes elaborated on water quality, water quantity, air quality and contamination. Also included in his testimony was a KDHE water pollution control permit and the first page and a half of the Assessment of the Potential Pollution of Groundwater by Confined Livestock Operation by John Zupancic.

David Walker appeared in support of <u>SB 604</u> telling members of the Committee he was a proponent of scientific planning, monitoring and protection of our basic resources (<u>Attachment 5</u>). Mr. Walker expressed concern about a difference in soil borings for a lagoon and the actual substrata discovered in the pit development noting these differences could cause potential pollution problems.

Mr. Walker spoke of concern about financial ability of a company to remedy possible pollution or of even more concern the possibility of abandonment. He also suggested such large scale confinement operations pay more of the cost to be independently monitored.

Mike Smith, High Plans Concerned Citizens Committee, Johnson, Kansas, spoke to the Committee in support of <u>SB 604</u> stating concerns about lines 1-12 and 22-25 on page 2 regarding fees. It was suggested the fees were ridiculously low while others state they are understaffed and ill-equipped to enforce provisions of whatever laws and amendments that might be enacted. Lines 28-35 on page 4 also deals with fees.

As a part of Mr. Smith's testimony, <u>Attachment 6</u> includes a number of copies of newspaper articles concerning difficulties with the swine confined feeding operations He further suggested all such operations be required to have a monitoring well to enable monitoring which could determine the amount of waste leakage/pollution.

Written testimony from Robert and Mary Lou Figgins, Manter, Kansas, was presented to committee members (Attachment 7). Mr. and Mrs. Figgins stated it was their understanding the current wording of the legislation would not allow them to vote on mega hog farms and other confined feeding operations because the original county approval was more than one year ago. They requested an opportunity to rescind permission for the operation because of neglect to provide proper information.

Written testimony from Bill Craven, Sierra Club was presented in support for <u>SB 604</u> (<u>Attachment 8</u>). Mr. Craven called attention to the disasters caused by spills from large mega-swine lagoons in the past months in North Carolina and Missouri. He noted the risk in western Kansas is not to surface water but to groundwater.

Mr. Craven voiced support for all provisions of <u>SB 604</u> but suggested two amendments outlined in his testimony. Also attached to Mr. Craven's testimony is a letter from Craig Volland making additional points.

Mike Jensen, Kansas Pork Producers Council, appeared in opposition to <u>SB 604</u> stating concerns on the bill (<u>Attachment 9</u>). Such concerns include the permitted size of the operation, KDHE policy requirements, many which cover the situation and the requirement of surety bonds which would cause unfair expense with which other livestock, poultry and dairy producers do not have to comply.

Mr. Jensen told members that the Kansas Department of Health and Environment puts the most stringent regulations on producers than nearly all other states.

Discussion noted KDHE has been re-evaluating the types of soil, the seal and how tight they are; that projected costs of implementation of this bill to the producer would include a monitoring well installation cost from \$22.50 to \$28 per linear foot, estimated total cost from \$5,000 to \$7,000; that a professional engineer is hired for projects but presently no bond is required; cleanup language touching on manure and waste, and ground water contamination causes concern; remediation would be much more expensive than preventing groundwater contamination which could cost several million dollars.

The meeting adjourned at 8:58 a.m.

The next meeting is scheduled for February 16, 1996.

SENATE ENERGY & NATURAL RESOURCES COMMITTEE GUEST LIST

DATE: February 15, 1996

NAME	REPRESENTING
Diane Coe	SWKS Groundwater Management Dist
hobo Smith	STANTON CTY
Jim Sijas	High Plains Concerned Citizenstonliting
Dal Lamble,	RDA
DINIO B SOHOSSER	Per MeGin 2 Assoc
Dave HOLTHAMS	Western Rosonices
Mh Jensen Jim Allen	Katook Courcil
Jim Allen	Seeboand
DALÉ SUTTON	Co. Comm. STEVENS Co.

STATE OF KANSAS

STEVE MORRIS

600 TRINDLE HUGOTON, KS 67951 (316) 544-2084

STATE CAPITOL BUILDING, ROOM 462-E
TOPEKA, KS 66612
(913) 296-7378



COMMITTEE ASSIGNMENTS

VICE CHAIRMAN: AGRICULTURE

MEMBER: ENERGY & NATURAL RESOURCES STATE BUILDING CONSTRUCTION

WAYS AND MEANS

SENATE ENERGY AND NATURAL RESOURCES

February 15, 1996

SB 604

This bill is in response to several problems that have arisen concerning the rapidly expanding hog population in Southwestern Kansas. Most of these problems have centered around waste lagoons, particularly in sandy soil locations. One large lagoon developed a break in the liner and within hours, another had effluent blowing over the side of the lagoon due to high winds.

One recommendation is to require a swine waste management plan prepared by a licensed engineer or consultant certified by Kansas Department of Health and Environment (KDHE). Once the facility is completed, the engineer/consultant and the owner would have to certify to KDHE that all statutes and rules and regulations were complied with, and in addition, the Soil Conservation Waste Management Guidelines are to be followed.

Due to concerns about the possibility of the abandonment of one of these lagoons at some point in the future with no solid provisions to return the lagoon to normal conditions, a requirement is in this bill to require a bond to be set by the Secretary.

A provision to require immediate reporting of a spill to KDHE and a written report within three days is also added in the bill.

If the soil is sandy loam or coarser, a monitoring well would be required as part of the facility. The possibility of contamination of ground water due to leaching through sandy soil is the reason for this requirement.

These measures would help prevent environmental damage from the anticipated heavy populations of hogs concentrated in parts of our state.

Senate Eneroy & Natural Res. February 15, 1996 Attachment 1 Bill Graves



Governor

Department of Health and Environment

James J. O'Connell, Secretary

Testimony presented to

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

by

The Kansas Department of Health and Environment

Senate Bill 604

The Kansas Department of Health and Environment (KDHE) appears in support of SB 604. KDHE has responsibility for review and permitting of livestock waste facilities, particularly the waste control systems. The total inventory of facilities reviewed by KDHE is over 4,100 including 350 facilities over 1000 animal units in size. From KDHE's viewpoint the trend is toward larger facilities, evidenced particularly by the large swine operations in southwest Kansas. The inventory of KDHE facilities over 1000 animal units in size has grown from 260 to 348 since October 1993. There have been plenty of headlines regarding problems with spills of swine waste in Missouri, Iowa, and North Carolina. These observations are made to bolster the premise that Kansas needs to be diligent in siting, constructing, and operating livestock facilities. SB 604 would help Kansas avoid the problems experienced by other

The bill requires a waste management plan prepared by a professional engineer or approved consultant. KDHE has been requiring a waste management plan, but as a condition of a permit, or as technical information KDHE needs to evaluate the proposal. Making this management plan a statutory requirement will greatly strengthen KDHE's ability to obtain information and evaluate proposals. Our experience has also shown occasions where a person requesting a permit has little idea of the complexities of waste handling or disposal. In some cases sites were moved or significant design changes were made from the information gained from a waste management plan.

The requirement for a professional engineer or approved consultant is to insure quality design. KDHE currently recommends a professional engineer be used but does not hold up permitting if not professionally designed. The large facilities generally use professional engineers and we do no think this is a burdensome requirement, especially in consideration of the importance of doing the job right. The use of a professional engineer knowledgeable in KDHE design and permitting requirements will enable facility owners to implement projects in a timely manner as all the design and permit requirements are addressed in the initial submission. The bill also requires certification by the owner and professional engineer that the facility was built according to specifications. The importance of this certification should be self evident. However, KDHE has found obtaining these certifications difficult. KDHE has generally assumed the owner would desire such a certification as a condition of the design contract.

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Telephone: (913) 296-5547 Fax Number: (913) 296-5509

Senate Energy & Natural Res. February 15, 1996 Atlachment 2 Concern has been expressed over the potential for lagoon leakage and potential groundwater contamination. KDHE shares these concerns regardless of facility size or type. The provisions of SB 604 regarding construction in sandy soils will be helpful to KDHE in requiring monitoring wells. The provisions should also indicate to designers that care should be used in lagoon construction so that ground water contamination is avoided. KDHE believes properly designed monitoring wells would help detect problems early and correction can be carried out at less cost, not to mention avoiding an adverse impact to the environment.

The provisions for a bond should signal the state's seriousness in assuring waste systems are properly designed and operated. There is the potential for the state inheriting a polluted site and the bonds would provide funds for clean up. Similar approaches in requiring financial assurance instruments/bonds are used for hazardous waste (RCRA) storage facilities, privately and publicly owned sanitary landfills, surface mining operations, and Class I (industrial wastes) and Class III (salt solution mining) injection wells regulated through the provisions of the Underground Injection Control (UIC) Program.

A technical review of the bill by KDHE staff has resulted in several suggested changes for clarity and improvement. Those suggestions are provided through the attached balloon.

Testimony presented by:

Donald Carlson Chief, Industrial Program Section Division of Environment/Bureau of Water February 15, 1996 Book

Session of 1996

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SENATE BILL No. 604

By Senator Morris

2-5

AN ACT concerning water pollution control; relating to swine confined feeding facilities; amending K.S.A. 1995 Supp. 65-166a and 65-171d and repealing the existing sections.

Be it enacted by the Legislature of the State of Kansas:

Section 1. K.S.A. 1995 Supp. 65-166a is hereby amended to read as follows: 65-166a. (a) The secretary of health and environment is authorized and directed to establish by duly adopted rules or regulations a schedule of fees to defray all or any part of the costs of administering the water pollution control permit system established by K.S.A. 65-165 and 65-166 and amendments thereto. The amount of the fees so established shall be based upon the quantity of raw wastes or treated wastes to be discharged, units of design capacity of treatment facilities or structures, numbers of potential pollution units, physical or chemical characteristics of discharges and staff time necessary for review and evaluation of proposed projects. In establishing the fee schedule, the secretary of health and environment shall not assess fees for permits required in the extension of a sewage collection system, but such fees shall be assessed for all treatment devices, facilities or discharges where a permit is required by law and is issued by the secretary of health and environment or the secretary's designated representative. Such fees shall be nonrefundable.

- (b) Any such permit for which a fee is assessed shall expire five years from the date of its issuance. The secretary of health and environment may issue permits pursuant to K.S.A. 65-165 and amendments thereto for terms of less than five years, if the secretary determines valid cause exists for issuance of the permit with a term of less than five years. The minimum fee assessed for any permit issued pursuant to K.S.A. 65-165 and amendments thereto shall be for not less than one year. Permit fees may be assessed and collected on an annual basis and failure to pay the assessed fee shall be cause for revocation of the permit. Any permit which has expired or has been revoked may be reissued upon payment of the appropriate fee and submission of a new application for a permit as provided in K.S.A. 65-165 and 65-166 and amendments thereto.
 - (c) A permit shall be required for:
 - (1) Any confined feeding facility with an animal unit capacity of 300

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to 999 if the secretary determines that the facility has significant water pollution potential; and

- (2) any confined feeding facility with an animal unit capacity of 1,000 or more.
- (d) At no time shall the annual permit fee for a confined feeding facility exceed:
- (1) \$25 for facilities with an animal unit capacity of not more than 999.
 - (2) \$100 for facilities with an animal unit capacity of 1,000 to 4,999;
- (3) \$200 for facilities with an animal unit capacity of 5,000 to 9,999; or
 - (4) \$400 for facilities with an animal unit capacity of 10,000 or more.
- (e) The secretary of health and environment shall remit all moneys received from the fees established pursuant to this act to the state treasurer at least monthly. Upon receipt of such remittance, the state treasurer shall deposit the entire amount thereof in the state treasury to the credit of the state general fund.
- (f) Any confined feeding facility with an animal unit capacity of less than 300 may be required to obtain a permit from the secretary if the secretary determines that such facility has significant water pollution potential.
- (g) Any confined feeding facility not otherwise required to obtain a permit or certification may obtain a permit or certification from the secretary. Any such facility obtaining a permit shall pay an annual permit fee of not more than \$25.
- (h) [Any swine confined fooding facility requesting to be paralited shall meet the requirements established in subsection (k) of K.S.A. 65-171d, and amendments thereto.
- Sec. 2. K.S.A. 1995 Supp. 65-171d is hereby amended to read as follows: 65-171d. (a) For the purpose of preventing surface and subsurface water pollution and soil pollution detrimental to public health or to the plant, animal and aquatic life of the state, and to protect beneficial uses of the waters of the state and to require the treatment of sewage predicated upon technologically based effluent limitations, the secretary of health and environment shall make such rules and regulations, including registration of potential sources of pollution, as may in the secretary's judgment be necessary to: (1) Protect the soil and waters of the state from pollution resulting from underground storage reservoirs of hydrocarbons and liquid petroleum gas; (2) control the disposal, discharge or escape of sewage as defined in K.S.A. 65-164 and amendments thereto, by or from municipalities, corporations, companies, institutions, state agencies, federal agencies or individuals and any plants, works or facilities owned or operated, or both, by them; and (3) establish water quality standards for

Any swine confined feeding facility requesting or required to be permitted shall meet the requirements established in subsection (k) of K.S.A. 65-171d, and amendments thereto.

the waters of the state to protect their beneficial uses.

- (b) The secretary of health and environment may adopt by reference any regulation relating to water quality and effluent standards promulgated by the federal government pursuant to the provisions of the federal clean water act and amendments thereto, as in effect on January 1, 1989, which the secretary is otherwise authorized by law to adopt.
- (c) For the purposes of this act, including K.S.A. 65-161 through 65-171h and amendments thereto, and rules and regulations adopted pursuant thereto: (1) "Pollution" means: (A) Such contamination or other alteration of the physical, chemical or biological properties of any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to the plant, animal or aquatic life of the state or to other designated beneficial uses; or (B) such discharge as will or is likely to exceed state effluent standards predicated upon technologically based effluent limitations.
- (2) "Confined feeding facility" means any lot, pen, pool or pond: (A) Which is used for the confined feeding of animals or fowl for food, fur or pleasure purposes; (B) which is not normally used for raising crops; and (C) in which no vegetation intended for animal food is growing.
- (3) "Animal unit" means a unit of measurement calculated by adding the following numbers: The number of beef cattle weighing more than 700 pounds multiplied by 1.0; plus the number of cattle weighing less than 700 pounds multiplied by 0.5; plus the number of mature dairy cattle multiplied by 1.4; plus the number of swine weighing more than 55 pounds multiplied by 0.4; plus the number of sheep or lambs multiplied by 0.1; plus the number of horses multiplied by 2.0; plus the number of turkeys multiplied by 0.018; plus the number of laying hens or broilers, if the facility has continuous overflow watering, multiplied by 0.01; plus the number of laying hens or broilers, if the facility has a liquid manure system, multiplied by 0.033; plus the number of ducks multiplied by 0.2. However, each head of cattle will be counted as one full animal unit for the purpose of determining the need for a federal permit.
- (4) "Animal unit capacity" means the maximum number of animal units which a confined feeding facility is designed to accommodate at any one time.
- (5) "Habitable structure" means any of the following structures which is occupied or maintained in a condition which may be occupied: A dwelling, church, school, adult care home, medical care facility, child care facility, library, community center, public building, office building or licensed food service or lodging establishment.
- (d) In adopting rules and regulations, the secretary of health and environment, taking into account the varying conditions that are probable for each source of sewage and its possible place of disposal, discharge or

escape, may provide for varying the control measures required in each case to those the secretary finds to be necessary to prevent pollution. If a freshwater reservoir or farm pond is privately owned and where complete ownership of land bordering the reservoir is under common private ownership, such freshwater reservoir or farm pond shall be exempt from water quality standards except as it relates to water discharge or seepage from the reservoir to waters of the state, either surface or groundwater, or as it relates to the public health of persons using the reservoir or pond or waters therefrom.

- (e) (1) Whenever the secretary of health and environment or the secretary's duly authorized agents find that the soil or waters of the state are not being protected from pollution resulting from underground storage reservoirs of hydrocarbons and liquid petroleum gas or that storage or disposal of salt water not regulated by the state corporation commission or refuse in any surface pond is causing or is likely to cause pollution of soil or waters of the state, the secretary or the secretary's duly authorized agents shall issue an order prohibiting such underground storage reservoir or surface pond. Any person aggrieved by such order may within 15 days of service of the order request in writing a hearing on the order.
- (2) Upon receipt of a timely request, a hearing shall be conducted in accordance with the provisions of the Kansas administrative procedure act.
- (3) Any action of the secretary pursuant to this subsection is subject to review in accordance with the act for judicial review and civil enforcement of agency actions.
- (f) The secretary may adopt rules and regulations establishing fees for the following services:
- (1) Plan approval, monitoring and inspecting underground or buried petroleum products storage tanks, for which the annual fee shall not exceed \$5 for each tank in place;
- (2) permitting, monitoring and inspecting salt solution mining operators, for which the annual fee shall not exceed \$1,950 per company; and
- (3) permitting, monitoring and inspecting hydrocarbon storage wells and well systems, for which the annual fee shall not exceed \$1,875 per company.
- (g) Prior to any new construction of a confined feeding facility with an animal unit capacity of 300 to 999, such facility shall register with the secretary of health and environment. Facilities with less than 300 animal units may register with the secretary. Any such registration shall be accompanied by a \$25 fee. Within 30 days of receipt of such registration, the department of health and environment shall identify any significant water pollution potential or separation distance violations pursuant to subsection (h). If there is identified a significant water pollution potential,

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such facility shall be required to obtain a permit from the secretary. If there is no water pollution potential posed by a facility with an animal unit capacity of less than 300, the secretary may certify that no permit is required. If there is no water pollution potential nor any violation of separation distances posed by a facility with an animal unit capacity of 300 to 999, the secretary shall certify that no permit is required and that there are no certification conditions pertaining to separation distances. If a separation distance violation is identified, the secretary may reduce the separation distance in accordance with subsection (i) and shall certify any such reduction of separation distances.

- (h) Any new construction or new expansion of a confined feeding facility shall meet or exceed the following requirements in separation distances from any habitable structure:
- (1) 1320 feet for facilities with an animal unit capacity of 300 to 999; 15 and
 - 4000 feet for facilities with an animal unit capacity of 1,000 or (2)more.
 - (i) The separation distance requirements of subsection (h) shall not apply if such person newly constructing or newly expanding a confined feeding facility obtains a written agreement from all owners of habitable structures which are within the separation distance stating such owners are aware of such construction or expansion and have no objections to such construction or expansion. The written agreement shall be filed in the register of deeds office of the county in which the habitable structure is located. The secretary may reduce separation distance requirements if: (1) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice; or (2) the board of county commissioners of the county where the confined feeding facility is located submits a written request seeking a reduction of separation distances.
 - (i) The separation distances required pursuant to subsection (h) shall not apply to:
 - (1) Confined feeding facilities which are permitted or certified by the secretary on the effective date of this act;
 - (2) confined feeding facilities which exist on the effective date of this act and register with the secretary before July 1, 1996; or
 - expansion of a confined feeding facility, including any expansion for which an application is pending on the effective date of this act, if: (A) In the case of a facility with an animal unit capacity of 1,000 or more prior to the effective date of this act, the expansion is located at a distance not less than the distance between the facility and the nearest habitable structure prior to the expansion; or (B) in the case of a facility with an animal unit capacity of less than 1,000 prior to the effective date of this

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act and, the expansion is located at a distance not less than the distance between the facility and the nearest habitable structure prior to the expansion the animal unit capacity of the facility after expansion does not exceed 2,000.

(k) (1) Prior to any permit being issued pursuant to K.S.A. 65 1669, and amendments thereto, any new construction or new expansion of a swine confined feeding facility with an animal unit capacity of 1,000 or more shall submit to the secretary of health and environment a swine waste management plan prepared by a professional engineer, as defined in K.S.A. 74-7003, and amendments thereto, or a qualified consultant approved by the secretary of health and environment. Such plan shall include a description of the measures necessary to control animal waste including control of runoff, storage and disposal practices needed to avoid contamination to the waters of the state.

(2) The owner of such swine confined feeding facility and the professional engineer or consultant shall certify, in writing, to the secretary of health and environment that such swine vaste management plan is in compliance with the natural resources conservation service technical standards and all applicable state laws and any rules and regulations adopted thereunder and shall certify, in writing, that the swine confined feeding facility is built to the specifications in such plan.

(3) If the swine confined feeding facility is to be built on soil that is classified as any type of sandy loam or coarser by the soil conservation classifications published by the United States department of agriculture, such facility is required to have monitoring wells. If the swine confined feeding facility is to be built on any other classification of soil, the secretary may require such facility to have monitoring wells.

(4) Any spills or contamination by a swine confined feeding facility shall be reported to the secretary immediately and a written report shall be filed with the secretary within three days of such spill or contamination.

- (5) The owner of new construction or new expansion of a swine confined feeding facility with an animal unit capacity of 1,000 or more shall be fequired to provide a surety bond or cash bond in an amount determined by the secretary to pay the costs of cleanup in the event such swine confined feeding facility is abandoned.
- Sec. 3. K.S.A. 1995 Supp. 65-166a and 65-171d are hereby repealed. Sec. 4. This act shall take effect and be in force from and after its publication in the statute book.

- (k)(1) Prior to any permit being issued pursuant to K.S.A. 65-166a, and amendments thereto, any new construction or new expansion of a swine confined feeding facility with an animal unit capacity of 1,000 or more shall submit to the secretary of health and environment a swine waste management plan prepared by, or under the direct supervision of a professional engineer, as defined in K.S.A. 74-7003, and amendments thereto. When hydrogeology reports or waste management plans are required by the secretary of health and environment, they shall be prepared by a consultant qualified through formal college education and training in the areas of geology, hydrogeology, agricultural engineering, agronomy or other agricultural soils science areas. The swine waste management plan shall include a description of the measures necessary to control animal wastes including the control of runoff, storage, disposal and/or land application practices needed to avoid contamination to soils and waters of the state.
- (2) The owner of such swine confined feeding facility and the professional engineer or qualified consultant shall certify, in writing, to the secretary of health and environment at the time of submission that such swine waste management plan is in compliance with the more restrictive of either the natural resources conservation service technical standards or health and environment design standards and all applicable state laws and any rules and regulations adopted thereunder. The professional engineer shall certify in writing, at the completion of construction and prior to populating the facility with livestock, that the swine confined feeding facility is built to the specifications of the swine waste management plan approved by health and environment.
- (3) Any new construction or new expansion of a swine confined feeding facility, with an animal unit capacity of 1,000 or more, shall install either groundwater monitoring wells or a leak detection system to monitor for the subsurface release of pollutants from the confined feeding facility. The choice of whether groundwater monitoring wells or a leak detection system is employed will be at the discretion of health and environment and will be based on considerations related to site specific hydrogeologic conditions. The groundwater monitoring wells or leak detection system shall be monitored through sampling and analysis pursuant to the provisions of the permit issued by health and environment.
- (4) Any discharges, overflows, spills, runoff from waste application sites during periods of application, or contamination by a swine confined feeding facility shall be reported to the secretary immediately and a written report shall be filed with the secretary within three days of such discharge, overflow, spill, runoff from waste application site during the period of application, or contamination.
- (5) The owner of any new construction or new expansion of a swine confined feeding facility with an animal unit capacity of 1,000 or more shall be required to provide a surety bond or cash bond in an amount determined by the secretary to pay the costs of cleanup in the event such swine confined feeding facility is abandoned. For the purpose of this subsection, cleanup shall include, at a minimum, disposition of any animals remaining at the facility, disposal of dead animals, the removal and disposal of animal wastes in lots, pens, buildings, storage pits, waste treatment/storage ponds or lagoons, and stockpiled wastes associated with the facility. Also for the purpose of this subsection, a facility shall be considered abandoned when the secretary of health and environment determines there is no longer a person responsible for the operation and maintenance of the pollution controls at the facility, the permittee fails to apply for renewal of the water pollution control permit in a timely manner, or the permittee fails to pay the annual permit fee.

New K.S.A. 65-171d(c)(6) "Swine waste management plan" means any engineering report, construction plans and specifications, hydrogeology report and waste management plan developed for a swine confined feeding facility.

a municipality for the purpose t of any project costs of a pubystem operated by such mubonds shall not be subject to ed debt limitation provided by

94, ch. 349, § 18; July 1.

es for administering water permit system; expiration ance; permits and fees for z facilities; disposition of secretary of health and envized and directed to establish des or regulations a schedule ll or any part of the costs of vater pollution control permit by K.S.A. 65-165 and 65-166 ereto. The amount of the fees be based upon the quantity ated wastes to be discharged, icity of treatment facilities or of potential pollution units, l characteristics of discharges ssary for review and evaluapjects. In establishing the fee tary of health and environss fees for permits required a sewage collection system, be assessed for all treatment discharges where a permit is is issued by the secretary of nent or the secretary's desve. Such fees shall be non-

rmit for which a fee is asve years from the date of its tary of health and environmits pursuant to K.S.A. 65ts thereto for terms of less e secretary determines valid ance of the permit with a ze years. The minimum fee nit issued pursuant to K.S.A. ents thereto shall be for not 'ermit fees may be assessed annual basis and failure to shall be cause for revocation ermit which has expired or y be reissued upon payment e and submission of a new ait as provided in K.S.A. 65amendments thereto.

I be required for:

(1) Any confined feeding facility with an animal unit capacity of 300 to 999 if the secretary determines that the facility has significant water pollution potential; and

(2) any confined feeding facility with an an-

imal unit capacity of 1,000 or more.

(d) At no time shall the annual permit fee for a confined feeding facility exceed:

(1) \$25 for facilities with an animal unit ca-

pacity of not more than 999;

(2) \$100 for facilities with an animal unit capacity of 1,000 to 4,999;

(3) \$200 for facilities with an animal unit ca-

pacity of 5,000 to 9,999; or

(4) \$400 for facilities with an animal unit ca-

pacity of 10,000 or more.

(e) The secretary of health and environment shall remit all moneys received from the fees established pursuant to this act to the state treasurer at least monthly. Upon receipt of such remittance, the state treasurer shall deposit the entire amount thereof in the state treasury to the credit of the state general fund.

(f) Any confined feeding facility with an animal unit capacity of less than 300 may be required to obtain a permit from the secretary if the secretary determines that such facility has

significant water pollution potential.

(g) Any confined feeding facility not otherwise required to obtain a permit or certification may obtain a permit or certification from the secretary. Any such facility obtaining a permit shall pay an annual permit fee of not more than \$25.

History: L. 1973, ch. 255, § 1; L. 1974, ch. 352, § 28; L. 1984, ch. 222, § 1; L. 1994, ch. 213,

§ 2; July 1.

65-171d. Prevention of water pollution; standards; permits; exemption; orders; hearings; appeals; fees; right of ingress and egress; registration of new construction; separation distances established. (a) For the purpose of preventing surface and subsurface water pollution and soil pollution detrimental to public health or to the plant, animal and aquatic life of the state, and to protect beneficial uses of the waters of the state and to require the treatment of sewage predicated upon technologically based effluent limitations, the secretary of health and environment shall make such rules and regulations, including registration of potential sources of pollution, as may in the secretary's judgment be necessary to: (1) Clean up pollution resulting from oil and gas activities regulated by the state

corporation commission; (2) protect the soil and waters of the state from pollution resulting from (A) oil and gas activities not regulated by the state corporation commission or (B) underground storage reservoirs of hydrocarbons, natural gas and liquid petroleum gas; (3) control the disposal, discharge or escape of sewage as defined in K.S.A. 65-164 and amendments thereto, by or from municipalities, corporations, companies, institutions, state agencies, federal agencies or individuals and any plants, works or facilities owned or operated, or both, by them; and (4) establish water quality standards for the waters of the state to protect their beneficial uses.

(b) The secretary of health and environment may adopt by reference any regulation relating to water quality and effluent standards promulgated by the federal government pursuant to the provisions of the federal clean water act and amendments thereto, as in effect on January 1, 1989, which the secretary is otherwise authorized

by law to adopt.

(c) For the purposes of this act, including K.S.A. 65-161 through 65-171h and amendments thereto, and rules and regulations adopted pursuant thereto: (1) "Pollution" means: (A) Such contamination or other alteration of the physical, chemical or biological properties of any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to the plant, animal or aquatic life of the state or to other designated beneficial uses; or (B) such discharge as will or is likely to exceed state effluent standards predicated upon technologically based effluent limitations.

(2) "Confined feeding facility" means any lot, pen, pool or pond: (A) Which is used for the confined feeding of animals or fowl for food, fur or pleasure purposes; (B) which is not normally used for raising crops; and (C) in which no vegetation intended for animal food is growing.

(3) "Animal unit" means a unit of measurement calculated by adding the following numbers: The number of beef cattle weighing more than 700 pounds multiplied by 1.0; plus the number of cattle weighing less than 700 pounds multiplied by 0.5; plus the number of mature dairy cattle multiplied by 1.4; plus the number of swine weighing more than 55 pounds multiplied by 0.4; plus the number of sheep or lambs multiplied by 0.1; plus the number of horses multiplied by 2.0; plus the number of turkeys multiplied by 0.018;

plus the number of laying hens or broilers, if the facility has continuous overflow watering, multiplied by 0.01; plus the number of laying hens or broilers, if the facility has a liquid manure system, multiplied by 0.033; plus the number of ducks multiplied by 0.2. However, each head of cattle will be counted as one full animal unit for the purpose of determining the need for a federal permit.

(4) "Animal unit capacity" means the maximum number of animal units which a confined feeding facility is designed to accommodate at

any one time.

(5) "Habitable structure" means any of the following structures which is occupied or maintained in a condition which may be occupied: A dwelling, church, school, adult care home, medical care facility, child care facility, library, community center, public building, office building or licensed food service or lodging establishment.

- (d). In adopting rules and regulations, the secretary of health and environment, taking into account the varying conditions that are probable for each source of sewage and its possible place of disposal, discharge or escape, may provide for varying the control measures required in each case to those the secretary finds to be necessary to prevent pollution. If a freshwater reservoir or farm pond is privately owned and where complete ownership of land bordering the reservoir is under common private ownership, such freshwater reservoir or farm pond shall be exempt from water quality standards except as it relates to water discharge or seepage from the reservoir to waters of the state, either surface or groundwater, or as it relates to the public health of persons using the reservoir or pond or waters there-
- (e) (1) Whenever the secretary of health and environment or the secretary's duly authorized agents find that the soil or waters of the state are not being protected from pollution resulting from oil and gas activities not regulated by the state corporation commission or from underground storage reservoirs of hydrocarbons, natural gas and liquid petroleum gas or that storage or disposal of salt water or oil not regulated by the state corporation commission or refuse in any surface pond is causing or is likely to cause pollution of soil or waters of the state, the secretary or the secretary's duly authorized agents shall issue an order prohibiting such activity, underground storage reservoir or surface pond. Any

person aggrieved by such order may within 15 days of service of the order request in writing a hearing on the order.

- (2) Upon receipt of a timely request, a hearing shall be conducted in accordance with the provisions of the Kansas administrative procedure act.
- (3) Any action of the secretary pursuant to this subsection is subject to review in accordance with the act for judicial review and civil enforcement of agency actions.

(f) The secretary may adopt rules and regulations establishing fees for the following services:

ices:

(1) Plan approval, monitoring and inspecting underground or buried petroleum products storage tanks, for which the annual fee shall not exceed \$5 for each tank in place;

(2) permitting, monitoring and inspecting salt solution mining operators, for which the annual fee shall not exceed \$1,950 per company;

and

(3) permitting, monitoring and inspecting hydrocarbon storage wells and well systems, for which the annual fee shall not exceed \$1,875 per

company.

(g) Agents of the secretary shall have the right of ingress and egress upon any lands to clean up pollution resulting from oil and gas activities. Such agents shall have the power to occupy such land if necessary to investigate and clean up such pollution. Any agent entering upon any land to conduct cleanup activities shall not be liable for any damages necessarily resulting therefrom except damages to growing crops, livestock or improvements on the land.

(h) Prior to any new construction of a confined feeding facility with an animal unit capacity of 300 to 999, such facility shall register with the secretary of health and environment. Facilities with less than 300 animal units may register with the secretary. Any such registration shall be accompanied by a \$25 fee. Within 30 days of receipt of such registration, the department of health and environment shall identify any significant water pollution potential or separation distance violations pursuant to subsection (i). If there is identified a significant water pollution potential, such facility shall be required to obtain a permit from the secretary. If there is no water pollution potential posed by a facility with an animal unit capacity of less than 300, the secretary may certify that no permit is required. If there

is no water pollution por of separation distances an animal unit capacity retary shall certify that that there are no certifying to separation distantance violation is identification reduce the separation with subsection (j) and duction of separation d

(i) Any new construa confined feeding facithe following requirer tances from any habital

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capacity of 1,000 or mo

- (j) The separation (subsection (i) shall not a constructing or newly ex ing facility obtains a wi owners of habitable str the separation distance aware of such construct no objections to such c The written agreement ister of deeds office of dwelling[*] is located. T separation distance requ stantial objection from c tures within the separa in response to public n county commissioners confined feeding facility ten request seeking a re tances.
- (k) The separation suant to subsection (i)

(1) Confined feedin mitted or certified by fective date of this act;

(2) confined feedin the effective date of this secretary before July 1.

(3) expansion of a including any expansior is pending on the effect In the case of a facility pacity of 1,000 or more of this act, the expansion not less than the distand the nearest habita



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y new construction of a cony with an animal unit capacity facility shall register with the and environment. Facilities inimal units may register with such registration shall be ac-5 fee. Within 30 days of restration, the department of ment shall identify any signifn potential or separation disursuant to subsection (i). If a significant water pollution ity shall be required to obtain secretary. If there is no water posed by a facility with an anof less than 300, the secretary permit is required. If there

is no water pollution potential nor any violation of separation distances posed by a facility with an animal unit capacity of 300 to 999, the secretary shall certify that no permit is required and that there are no certification conditions pertaining to separation distances. If a separation distance violation is identified, the secretary may reduce the separation distance in accordance with subsection (j) and shall certify any such reduction of separation distances.

(i) Any new construction or new expansion of a confined feeding facility shall meet or exceed the following requirements in separation dis-

tances from any habitable structure:

(1) 1320 feet for facilities with an animal unit capacity of 300 to 999; and

(2) 4000 feet for facilities with an animal unit capacity of 1,000 or more.

- (j) The separation distance requirements of subsection (i) shall not apply if such person newly constructing or newly expanding a confined feeding facility obtains a written agreement from all owners of habitable structures which are within the separation distance stating such owners are aware of such construction or expansion and have no objections to such construction or expansion. The written agreement shall be filed in the register of deeds office of the county in which the dwelling[*] is located. The secretary may reduce separation distance requirements if: (1) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice; or (2) the board of county commissioners of the county where the confined feeding facility is located submits a written request seeking a reduction of separation dis-
- (k) The separation distances required pursuant to subsection (i) shall not apply to:
- (1) Confined feeding facilities which are permitted or certified by the secretary on the effective date of this act;

(2) confined feeding facilities which exist on the effective date of this act and register with the

secretary before July 1, 1996; or

(3) expansion of a confined feeding facility, including any expansion for which an application is pending on the effective date of this act, if: (A) In the case of a facility with an animal unit capacity of 1,000 or more prior to the effective date of this act, the expansion is located at a distance not less than the distance between the facility and the nearest habitable structure prior to the expansion; or (B) in the case of a facility with an animal unit capacity of less than 1,000 prior to the effective date of this act and, the expansion is located at a distance not less than the distance between the facility and the nearest habitable structure prior to the expansion the animal unit capacity of the facility after expansion does not exceed 2,000.

History: L. 1933, ch. 85, § 1 (Special Session); L. 1945, ch. 234, § 1; L. 1953, ch. 284, § 1; L. 1957, ch. 333, § 1; L. 1967, ch. 333, § 4; L. 1971, ch. 201, § 1; L. 1974, ch. 247, § 2; L. 1974, ch. 352, § 39; L. 1984, ch. 222, § 2; L. 1986, ch. 204, § 6; L. 1986, ch. 201, § 22; L. 1988, ch. 356, § 181; L. 1989, ch. 185, § 4; L. 1994, ch. 213, § 1; July 1.

Reference should be to habitable structure.

65-171y. Public water supply system regulation of lawn irrigation systems. (a) Subject to the provisions of subsection (b), any lawn irrigation system which is not used for the application of fertilizers, pesticides or other chemicals shall not be deemed to be a high-hazard water system, and shall not be required to be equipped with a high-hazard backflow prevention device. Any such lawn irrigation system installed, renovated, replaced or extended on or after July 1, 1994, shall have at least a low-hazard double check valve assembly as a minimum level of backflow protection and any such valve on a new system installed after July 1, 1994, shall be installed in such a manner as to be easily accessible for

(b) A public water supply system operated by a city or county may impose any requirement, in addition to that provided by subsection (a), for backflow protection or prevention on lawn irrigation systems which are not used for the application of fertilizers, pesticides or other chemicals and which are connected to the public water

supply system.

History: L. 1994, ch. 349, § 19; July 1.

PHENYLKETONURIA, CONCENITAL HYPOTHYROIDISM AND GALACTOSEMIA

65-180. Educational, screening, testing and follow-up program concerning phenylketonuria, congenital hypothyroidism, galactosemia and certain other genetic diseases; registry of cases; treatment product. The secretary of health and environment shall:

(a) Institute and carry on an intensive educational program among physicians, hospitals,



Southwest Kansas Groundwater Management District

* * * * *

(316) 275-7147 409 Campus Drive, Suite 106 Garden City, Kansas 67846

Testimony

of the

Southwest Kansas Groundwater Management District

presented before the

Senate Energy and Natural Resources Committee

regarding

Senate Bill No. 604

on

February 15, 1996

by

Diane K. Coe

Chairman Sallee and Associate Committee Members,

The District appreciates the opportunity to testify on the My name is Diane Coe, proposal pending before you today. Hydrogeologist of the Southwest Kansas Groundwater Management As the District staff person who deals with water frequent calls quality issues, I receive from concerned citizens, and county commissioners about the adequacy of water quality protection activities in Southwest Kansas. Over the last year, close to ninety percent (90%) of these calls deal with concerns at animal confinement facilities. The DIstrict Board of Directors has received many complaints and informatin from concerned citizens. Numerous meetings have been held with State and local officials, and concerned citizens. At least so concerned they are considering taking on the one county is burden of additional regulations.

Senate Bill No. 604 section 2 calls for the amending of K.S.A. 65-171. Item (k) is the focus of the Districts comments.

Paragraph (1): The requirement for a written plan to control animal waste is justified, but a plan must also be followed. Many perceived problems could be avoided presently, if waste management plans were in effect before a facility goes into operation and if the plan is followed. Present penalties for violations of such a plan do not provide enough incentive to operate within the approved plan. This requirement should apply to the waste management at all facilities required to obtain a State or Federal permit.

Paragraph (3): Again, this requirement should apply to the waste management at all facilities required to obtain a State or Federal permit. The requirement for any facility built on sandy loam or coarser soil to have monitoring wells is not workable as presented in this Bill. A groundwater monitoring system for a facility must be properly designed for the specific site. Monitoring wells must be designed for depth the groundwater, seasonal groundwater flow direction, and the This legislation does not require parameters to be monitored. the monitoring wells to intercept groundwater or to be designed to achieve another specific purpose. The District suggests the from storage areas leakage 1) determine purposes to be: (wastewater lagoons, holding ponds, and solid waste storage areas); and 2)monitor for degradation of groundwater quality.

A number of additions or alternatives might be considered such as: 1) groundwater monitoring of the water table if it is within a specified depth below land surface and an alternative



if groundwater is deeper; 2) synthetic and or compacted clay liners for waste storage ponds that meet a specified standard to to ensure there is never any leakage; 3) monitoring wells must be sampled and/or checked periodically to be of any valid purpose; and 4) a combination of of the above.

Monitoring must be required prior to operation to determine existing conditions. This will allow determination if and when degradation of the State's water resources occurs. Many other items are necessary for an adequate monitoring system that may be more appropriate in regulation form, rather than in this Bill itself. However, the District urges you to consider strengthening the measures that protect our the State's irreplaceable groundwater resources.

In closing, I would like to summarize the District's remarks about the proposed legislation by saying, that "the District supports the concept of protecting the quality of our groundwater resources". Therefore, the District supports this Bill. The present and future value of water will depend on water quality and will have an impact on the long-term, economic sustainability of the region. Strengthening statutes, and regulations and ensuring the personnel and other resources to enforce those laws is a boon to the overall economic and physical health of Southwest Kansas and our State. like to add that the District is in the initial stages of researching the impacts various waste disposal activities on our groundwater resources because it recognizes the value of water quality to the overall economic stability and health of the region, .

As always, the District is available to answer any questions or provide any assistance on these important issues.



High Plains Concerned Citizens Coalition

(farmers, stockmen, and townspeople)
P.O. BOX 538
JOHNSON, KANSAS 67855
Fax (316) 492-6221 Fax (316) 493-4700

February 15, 1996

Testimony Senate Bill 604

Mr. Chairman, Honorable Committee Members and Fellow Kansans:

We are asking you to address the following issues beginning with bonding and continuing with appropriate government action to protect the land, air, water and populace of this great state. Junius wrote "We owe it to our ancestors to preserve . . . those rights, which they have delivered to our care: we owe it to our posterity, not to suffer their dearest inheritance to be destroyed."

Citizens in Southwest Kansas are concerned about the massive influx of large concentrated animal feeding operations into our area. While our counties, specifically Stanton, Morton and Stevens have, by county commission resolution, allowed corporate farming, we feel that our citizens, state regulatory system, state officials and local officials were terribly unprepared for the magnitude and hazardous potential of these operations. Our governing agencies either do not have the necessary regulations or do not have the nerves to use and enforce the current regulations. Our small population and county budgets do not allow enough money to clean up any fiduciary responsibilities of a mishap of these facilities. The state should enforce fiscal responsibility for damage. For example, we are all required to have automobile insurance to get a tag or to drive legally.

Our concerns stem from the sheer magnitude of these facilities. Morton County, a county which specifically and emphatically opposed swine facilities in its economic development plan, has over 80 planned or operating facilities. Stanton County has over 20 facilities. Four million hogs are expected to be raised and slaughtered yearly in our area. That's a lot of manure.

Senate Energy & Natural Res. February 15, 1996 Attachment 4 Here is a short list of our concerns:

Water Quality: We have reason to believe that the lagoons at the following confined feeding facilities operated by Seaboard Farms, Inc. are leaking: site # 5, # 6, # 10, # 238, # 239 and the worst being # 52. Monthly reports are required by KDHE on lagoon levels. Apparently, no action has been taken because they are still in operation. The lagoon at site # 3 has side erosion, a common problem in soil line lagoons. We only are aware of Seaboard sites because we live next to them. We feel confident that other KDHE permitted sites owned by other companies are also leaking.

Our soil type is primarily sand. Sand leaches water at a very rapid rate. The lagoons for the corporate swine facilities are to be lined with clay to reduce the leaching. At many lagoon sites, clay in usable quantities does not exist. To date none of the lagoons in the area are operating at the KDHE recommended lagoon effluent levels. In fact at most of the sites, populated for over a year, the bottom of the lagoons is barely covered with liquid. This indicates that leaching is occurring at many of the sites. A primary example is site 52 in Stanton County, a Seaboard Farms facility, which sits on a dune of sand, proven by preconstruction bore samples. Unfortunately, the bore samples of record indicate a better soil structure than was actually removed from the site.

There are many natural and man-made conduits which rapidly increase the rate of contamination of our groundwater. Among these are abandoned wells, seismograph test holes, animal burrows, and oil exploration holes. Locations of many of these conduits are unknown to people outside of the area, are uncharted officially and are not available for consideration in lagoon or construction site selection. We have recently learned that one of the active confined feeding facilities in Morton County has been placed atop an uncapped, abandoned water well which is probably mapped officially, but was overlooked or ignored in site selection. The potential for rapid contamination of our water supply is tremendous.

(Please see the KDHE water pollution control permit attached, and the first page and a half of the Assessment of the Potential Pollution of Groundwater by Confined Livestock Operation requested by Southwest Kansas Groundwater Management District 3 reported December 13, 1995 by John Zupancic.)

Water Quantity: Water is critical to the survival of any community. Irrigation is the main usage of our water and is critical to the area economy. Many of the facilities are utilizing irrigation wells which were not producing enough water for irrigation purposes and were sitting idle. Therefore the overall usage of the water, in our opinion, will increase from present levels.

Many of these facilities are finding that their water wells are not producing enough water to supply their needs, causing them to ask for and to receive emergency livestock water permits from the State Engineer. More research, regulation, and enforcement could have dealt with the problem.

Air Quality: Many are concerned about the smell and proximity of these facilities to houses, schools, and towns and how this proximity relates to property values, health, and general living. Which department will regulate these issues and are they really being dealt with adequately? Bonding up front is better than abandonment later for dealing with any problems which may arise. Similar to a damage deposit on an apartment.

Contamination: Who is responsible for cleaning up the mess when the facilities are no longer in operation? We feel that these facilities should be bonded to clean up their own mess. In other states the local community and state have been left with the clean up expense.

Our group, a coalition of several small groups, carries numbers exceeding 1200. This number seems small but is a very large percentage of the registered voters of our area and indeed our population. We have mailed the attached proposals with their explanatory notes to our Kansas leaders. Please read, review and assist each other and Senator Morris in effort to arrive at some solutions for Kansans. We realize that little could be accomplished if these proposals were placed in one bill. We asked Senator Morris to consider each as an individual proposal and to promote the best ideas. We ask you to do the same.

Theodore Roosevelt in a message to congress stated it best, December 3, 1907, "To waste, to destroy, our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining, in the days of our children, the very prosperity which we ought, by right, to hand down to them amplified and developed".

Thank you for your time and thoughtful attention.

James D. Sipes, HPCCC Representative

Bill Graves



Governor

MAY 1 2 1995

Department of Health and Environment

James J. O'Connell, Secretary

May 12, 1995

Seaboard Farms of Oklahoma, Inc. Doug McCright 830 Country Estates Road Liberal. Kansas 67705

Re: Kansas Water Pollution Control

Permit No. A-CIMT-H001 (KS-0091341)

Gentlemen:

This is to inform you that you have fulfilled all filling requirements for a Kansas Water Pollution Control Permit for a non-discharging facility. We are pleased to forward your new permit.

ATTENTION: We strongly recommend that you carefully read your permit. Significant changes may have been made in your permit. Violations of the terms and/or conditions of this permit are enforceable under both State and Federal law. Violations can result in significant civil penalty.

We look forward to working with you in the achievement and maintenance of high quality water for the State of Kansas.

If you have any questions, please contact Chance Morrow with our Southwest District Office at (316) 225-0596.

Sincerely yours,

Larry G. Hess / PE, RLS. CH Agricultural Waste Unit

Bureau of Water

dg

Enclosure

cc: Southwest District ✓

Permit Limitations and Requirements

Permit Limitations

The enclosed swine facility consist of five units on contiguous property with each unit consisting of eleven (11) buildings having capacity for 3.937 gestation and breeding sows, 672 farrowing crates, 480 nursery pigs and 2,400 head of finish swine. Waste is collected in shallow concrete pull plug pits and flushed weekly via 8 inch PVC pipe to a single cell anaerobic lagoon. Farm unit #3 utilizes a triangular shaped lagoon measuring approximately 602 ft by 729 ft by 729 ft by 22 ft deep and providing approximately 82 acre feet of storage. Farm units #4, #5, #6, and #7 each utilize a rectangular shaped lagoon measuring 419 ft by 609 ft by 22 ft deep and providing shaped lagoon measuring 419 ft by 609 ft by 22 ft deep and providing approximately 81.3 acre feet of storage. Circle irrigation systems and approximately 81.3 acre feet of storage. Circle irrigation systems and approximately 2200 acres of agricultural land.

Controlled Wa Wastewater	equired stewater Storage Capacity	Required Wastewater Application Capacity	Required Wastewater Application
Farm Unit #3: 57	7,000 ft ³ 0 ft depth*)	1500 gpm total for all units	1500 acres total for all units

Farm units #4, 568,500 ft³ each #5, #6, & #7; (5.0 ft depth*)
11 enclosed bldgs. each (7,489 head of swine each)

*Required wastewater storage depth is vertical feet below top of berm.

Operation and Maintenance Requirements

B:

The concrete manure pits shall be maintained non-over flowing. The wastewater level in the earthen impoundment shall be maintained at least 2.0 feet below the top-of-berm to insure structural stability and provide storage capacity for wastewater from a two week period plus precipitation induced flow from a 4.6 inch rain.

Furthermore, on December 1st of each year, the manure pits and the earthen impoundment shall have the required storage depth available as specified in section 'A. Permit Limitations' to provide storage for wastewater accumulations through the winter.

B. Operation and Maintenance Requirements (cont.)

Whenever the available wastewater storage capacity is less than the required amount, dewatering shall be initiated and conducted on all days suitable for land application of waste until the required storage capacity is again available. Equipment and land area shall be available to dewater the required wastewater storage volume in ten (10) days.

The wastewater treatment lagoon shall be properly managed to establish and maintain biological activity and thereby reduce odors and nuisance potential A minimum volume of water must be maintained in the lagoon and a minimum amount of fresh dilution water must be added. Fresh water shall be added to the lagoon as needed to maintain the minimum liquid level.

With the confined feeding facilities at full capacity, the liquid level in the lagoon shall be maintained at least 11.8 feet deep (10.2 feet from top of berm). At less than full occupancy, the required minimum volume can be reduced in proportion to waste loading.

Days suitable for land application of waste are those on which no precipitation occurs and have been immediately preceded by at least three successive days with less than 0.05 inch of precipitation per day; and on which non-frozen ground conditions prevail, there is no snow cover, and the temperature during disposal activities exceeds 32° F

Livestock wastes (both liquid and solid) shall be applied to land using rates and methods that prevent surface runoff of pollutants and leaching of pollutants to groundwater. Wastes shall be applied to land at rates not to exceed the nitrogen or moisture needs of plants growing or to be grown at the site. Annual waste applications shall in no case exceed 250 pounds of available nitrogen or 20 dry tons of solid waste per acre.

Livestock wastes shall not be applied to land within the 5-year flood plain nor within 200 feet of an intermittent watercourse, stream, river, or lake unless such wastes are incorporated into the soil within 12 hours of application. Wastewater irrigation sites subject to surface runoff shall have tailwater control structures installed. Manure shall be stockpiled only temporarily, and stockpiles shall be located in areas not subject to runoff or leaching.

Concentrated liquid wastes (i.e. liquid manure taken from pits or holding tanks) shall be incorporated in the soil within 12 hours of application unless applied to sites with heavy vegetative cover. Liquid manure or poultry waste shall not be applied to land within 1/8 mile of a residence, unless it can be incorporated into the soil at the time of application or the unless it can be incorporated into the soil at the time of application or the resident agrees to surface application without incorporation. When applying the waste, wind direction must be observed so odor has a minimal effect on neighbors.

C. Monitoring Requirements

A water level gauge (staff gauge) shall be installed in each outdoor wastewater impoundment. The gauge shall be marked in increments of feet and shall be readable to the nearest one foot. The water level at which minimum required storage volume specified in 'A. Permit Limitations' is available shall be clearly marked.

A record of rainfall events, waste disposal activities and coincident weather and soil conditions, and the wastewater storage capacity shall be maintained on operation logs provided by the Department. Information provided on the logs shall include but not be limited to, the following: daily precipitation amounts, available storage depth in all wastewater storage structures on the 1st, 15th, and last day of each month, air temperature and soil condition (frozen/thawed) on all disposal days, daily quantity of waste applied to land, application area, and vegetation on application area.

Whenever the water level infringes on the required freeboard or the required wastewater storage volume is not available in any impoundment, the available storage depth shall be recorded daily until required storage capacity is achieved.

Operational logs shall be submitted to the Department for each calendar month by the 10th day of the following month to verify proper management of pollution controls.

D. Other Requirements

The waste management plan developed by Agricultural Engineering Associates and approved by the Department shall be adhered to as a condition of this permit. The plan calls for nutrient analysis of both liquid and solids with applications to meet crop nutrient needs. If wastes are not analyzed for nutrient content, wastewater shall be applied at not greater than 3.3 acre inch per acre per year and solids shall be applied at no greater than 10 ton per acre.

Division of Environment Bureau of Water

Topeka, Kansas 66620 Telephone: (913) 296-5570

KANSAS AGRICULTURAL AND RELATED WASTE CONTROL PERMIT A-CIMT-H001

Pursuant to the provisions of the Kansas Statutes Annotated 65-164, et. seq.;

A PERMIT IS HEREBY GRANTED TO

Seaboard Farms of Oklahoma, Inc., farm units 3.4.5.6 & 7. Doug McCright, 830 Country Estates Road, Liberal, Kansas 67705 with livestock facilities for approximately 35,045 head (14, 018 animal units) of swine with unit #3 located in the SW/4 of Section 29, unit #4 in the W/2 of Section 21, unit #5 in the SW/4 of Section 28, unit #6 in the NE/4 of Section 33 and unit #7 in the NW/4 of Section 27, Township 31S, Range 40W of Morton County within the Cimarron River Basin to operate, as a pollutant discharge elimination system, water pollution control facilities to collect, retain, and dispose of precipitation induced runoff and/or dry weather wastewater accumulations containing livestock or related agricultural wastes as herein prescribed:

Provided, the water pollution contnol facilities shall be operated and maintained to prevent the discharge of water pollutants into the waters of the State. Liquids and solids shall be dewatered or removed from the collection and retention structures in a timely manner such that control capabilities are maintained for future needs.

Provided, further, the water pollution retention structure(s) shall be normally maintained with adequate freeboard to insure structural stability and with sufficient available storage capacity to retain future dry weather wastewater accumulations resulting in a two week period and/or precipitation induced runoff accumulations from all contributing drainage areas equivalent to the maximum quantity of precipitation expected to occur over a 24 hour period once in 10 years on a statistical probability

Provided, further, that all overflows on discharges from the water pollution control structures, any water pollution incident, or any permit violation shall be reported to the Department by telephone at (913) 296-1500 immediately upon discovery. A written report shall be submitted to the Department within three (3) days of the incident. Only duly reported discharge incidents shall be eligible for Departmental authorization. Provided, further, runoff and wastewater containing livestock or related agricultural wastes not collected and retained by the water pollution control facilities shall be controlled in a manner capable of preventing water pollution.

Provided, further, that practices and procedures employed to apply livestock or related agricultural wastes, wastewaters, and runoff upon agricultural land shall be prudently

Provided, further, any significant operational changes, modifications, or capacity increases shall be reported and approved by this agency prior to implementation. Provided, further, that the livestock operation and water pollution control facilities shall be maintained in conformance with the provisions of K.S.A. 65-3001, et seq., and regulations developed pursuant thereto regarding air pollution.

Provided, further, that the livestock operation and water pollution control facilities shall be maintained in conformance with the provisions of K.A.R. 28-18-1 through 4 and the stipulations contained under Permit Limitations and Requirements.

This nontransferable permit shall become effective May 12, 1995 will supersede all previous permits and/or agreements in effect between the Kansas Department of Health and Environment (the Department) and the permittee, and will expire at midnight May 11, 2000

Secretary, Kansas Department of Health & Environment

May 12: 1995

Assessment of the Potential Pollution of Groundwater by Confined Livestock Operations in Southwest Kansas Groundwater Management District 3.

Feasibility Study December 13, 1995 by John Zupancic

Introduction

There is a growing concern among citizens of Southwest Kansas regarding the present and future quality of the groundwater in this region. New development of large-scale confined livestock production facilities has triggered a heightened level of interest. Thus the Southwest Kansas Groundwater Management District (SWKGMD) Board has asked me to help them ascertain whether or not confined livestock operations pose a threat to groundwater quality.

Groundwater is with very few exceptions the sole source of water for domestic use, crop irrigation, livestock production and industrial activity. Crop and livestock production are key to the economy of this region. A favorable climate with moderate rainfall and low humidity, ample groundwater supplies and access to feedstuffs make this region attractive for meat animal production. The beef cattle feeding industry has flourished here in the last thirty years. Typically there has been little concern about pollution threats to groundwater supplies because the thickness of the vadose zone overlying the High Plains aquifer commonly exceeds 100 feet and was thought to be an adequate buffer. Evaporation rates are greater than three times the precipitation rate and it seems unlikely that waste by-products from livestock production could penetrate the phreatic zone of the High Plains aquifer. However previous studies by the Southwest Kansas Groundwater Management District (Coe, 1994) established the fact that shallower groundwater along the Arkansas River is already contaminated by human activities. Much of it is now unfit for human or livestock consumption. Although the study does not detail the sources of this contamination, one can reasonably assume that it is the result of

municipal, industrial and agricultural activities - including livestock production and processing.

The shallow vadose zone along the River valley and hydrologic connections between river gravels and the underlying High Plains aquifer explain some of the intrusion of nitrates and other salts into deeper wells along the valley. However some practices used in redistribution of livestock wastes could possibly create a hydrologic conduit for waste by-products to enter deeper aquifers.

There are a variety of reports which document the contamination of groundwater by leaking livestock waste storage lagoons and feedlot runoff holding ponds. Typically these studies have not been conducted in locations where the vadose zone thickness exceeds 100 feet. However they point out possible scenarios which could occur in this region.

Morton County Committee for Responsible Government P.O. Box 464 Elkhart, KS 67950 (316) 697-4772

February 13, 1996

Honorable Senators:

In the next few days you will be asked to review and promote a resolution (Senate Bill No. 604) an act concerning water pollution control; relating to swine confined feeding facilities; amending K.S.A. 1995 Supp. 65-166a and 65-171.

One of the chief concerns of the Morton County Committee for Responsible Government about the Swine Corporations in Kansas is the exertion of the power and control over the local people by the mega-corporations.

In our county of Morton, signs have been placed on county roads, maintained by county employee's, and paid for with county taxes: These signs have Seaboard Farms at the top and they have added "NO UNAUTHORIZED ENTRY" at the bottom in red paint. Individuals have been stopped by Seaboard employers and asked "What are you doing on this road?" To my knowledge, *We the People*, still have a right to travel county owned and county maintained roads.

In reading the minutes of the past two years of commissioners meetings, many references are included concerning road maintenance, providing housing, and "a if you do this, we'll do this for you" attitude. Call it threats or bribery! "We'll build our office complex in Morton County, we only want this, this, this, this......" It appears that the commissioners are afraid to tell them "NO".

We realize there are rules and regulations that are to be followed by the swine corporations but in our area: (1) Seaboard started building without permits; (2) Seaboard has lied about having permits in Stevens County at a zoning board meeting; (3) Seaboard has moved effluent from one lagoon to another without permit (4) Seaboard has ran a pipe over a county road (blocking traffic) to move effluent from one lagoon to another. Even with regulations in Topeka (400 miles away) it's kind of a "out of sight, out of mind" operation for Seaboard. If they are caught in the act, KDHE gives a little slap on the wrist and away they go. (After the fact.)

Morton County Committee for Responsible Government
P.O. Box 464
Elkhart, KS 67950
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This is just a new operation, what will the consequences be in a few years.

There needs to be tighter restrictions, bigger fines, and more local control of the sites.

Another concern for the people of Morton County is Bonding, in reviewing other swine operations in other states, the corporations pick up and move out leaving their mess for the state to clean up. A surety bonding should be a necessity for future clean-up operations. Hopefully, it would never have to be used.

Another concern for the people of Morton County is the placing of the lagoons over abandoned test holes or drill sites. One lagoon in Morton County has been said to be over the top of an abandoned irrigation well which would be devastating if the effluent is going direct into the ground water. More research needs to be done before these sites are started.

We ask for your study and support of this bill (Senate Bill No. 604). We don't have what Seaboard has.....smooth talking lobbyists and a lot of corporation money. We just ask that you study and evaluate the circumstances and act accordingly to protect the natural resources and the good people of Kansas.

Morton County Committee for Responsible Government

Dorothy Milburn, Secretary

production of the second	Tool: C + Dill 101
	7 estimony - Senate Bill No. 604
	Senate Agriculture Committee
	February 15, 1996
****	Mr. Chairman and members of the Committee. I very much
	appreciate the opportunity to express to you my support for
	Senate Bill No. 604. My name is David Wahker, and I live
	and Farm in Stanton County, ks.
	As a person who has spent mig life dealing directly with agriculture,
tura — urr - v vandani	I consider myself extremely objective. It is this trust that
	makes me a deflitte proponent of scientific planning, monitoring, and
· · · · · · · · · · · · · · · · · · ·	projection of our busic resources, especially when a relatively unknown
n y agent at the caree	Situation exists.
	An example of such a situation exists in Northwestern Starton County.
	It is my undestanding in conversation with KDHE staff that the
	soil borings for a lagoon and the actual substrate discovered in the
	pit development differed very substantially. Furthermore, this
	difference could be expected to couse a potential pollution problem.
	This is just one example of why "I encourage you to support Senate Bill 604.
	The possibility of tinancial concerns affecting a company's ability
	to provide for safe operation or cleaning it abandoned is very prevalent,
	as one of the largest U.S. swine proclucers is currently in that
	situation. A bouch or insurance to cover such problems is definitely
	a good idea, as reflected in Senate BM 604.

One suggestion that I do have is to make these large scale confinement operations pay more of the cost to be independently monitored. As they are the patential policition sources, they should also be the sources for pollution control funding.

Twould be glod to respond to questions

Doord Wolker - Daniel Is likeller Senate Energy & Natural Res. February 15, 1996 Attachment 5

High Plains Concerned Citizens Committee P. O. Box 362 Johnson, KS 67855 February 12, 1996

Senate Committee on Agriculture Topeka, Kansas

Honorable Senators:

We would like to take this oportunity to thank you and your staff for your diligent efforts to help us curb and regulate the unregulated swine and confined feeding operations. We hope that you will continue to allow us to be a on-going part of the solution to this problem. In that spirit of partnership we would like to recommend the following amendments in the Senate Bill #604.

Concerning lines 1-12 and 22-25 on page2 regarding fees. The amounts indicated for fees are rediculously low. The bureaucrats are griping, to us at least, that they are understaffed and illequipped to enforce the provisions of whatever laws and amendments that might be enacted. The same is true for lines 28-35 on page 4 which also deals with fees.

Concerning sect. 2(k)(3) regarding types of soil where monitoring wells would be required please replace it with wording similar to the following: "All swine feeding facilities and confined feeding operations will be required to have a monitoring well with a lysimitor, or the newest such technology for determining animal waste leakage/pollution." We would also like to see this entire bill apply to confined feeding operations rather than just swine feeding operations.

Again, thank you very much for your legislative efforts on our behalf. Please understand that although we generally support this bill our continued support will be contingent upon seeing these amendments implemented.

Sincerely

Mike Smith

HPCCC Representative

Senate Energy + Matural Res. February 15, 1996 Attachment 6

Seaboard violates its KWPC permit

By Alan Montgomery

The Hutchinson News

RICHFIELD - In its haste to repair a wind-damaged hog sewage lagoon in Morton County in late October. Seaboard Farms violated its Kansas Water Pollution Control Permit. state officials confirmed Thursday.

The violation consisted of the unauthorized transfer of sewage liquids from Seaboard's No. 4 farm, in northeast Morton County, to a lagoon on a Seaboard farm about one mile south.

An above-ground, temporary pipeline was laid to accomodate the pumping, which was done with an irrigation-type pump that moved the material at a rate of about 450 gallons per. minute, said Jeff Ruckert, Seaboard's wastewater management director.

"We felt we needed to address the situation right away." Ruckert said Thursday.

The liquids were not pumped onto the adjoining, Seaboardowned farmland because water well-drilling test work was being done there and there was a risk of exposure to the drilling s and to the test holes, he

After the No. 4 lagoon was pumped out, a work crew used a

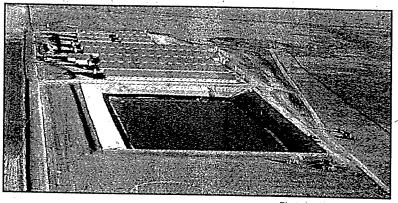


Photo by Alan Montgomery

This aerial photo shows Seaboard Farm's No. 4 hog production farm in northeast Morton County, with its repaired hog sewage lagoon in the foreground. Liner strips, seen as black and white bands, were installed to prevent further wave damage to its earthen liner.

Bobcat loader to haul in loads of clay-like soil to repair the wavedamaged lagoon's packed, earthen liner. Portable packing machines were brought in to repack the repaired liner areas. Ruckert said.

He acknowledged Thursday the company should have contacted KDHE before transferring the liquids out of the lagoon.

"In the future, if we have a problem we will observe it to see if there is no immediate threat and once it is found, we will call KDHE to inform them," he said.

Permit restrictions allow Seaboard to dispose of liquids from the lagoons only if it is being spread on farmland reserved for that purpose; those lands must be documented in the company's water pollution control permit.

The Kansas Department of Health and Environment learned of Seaboard's permit violation after the fact, after receiving a citizen complaint on Oct. 27 of sewage being pumped overland from the lagoon. After reviewing the matter, no environmental damage was found and no fines were issued, said Greg Crawford, a KDHE spokesman in Topeka.

"Certainly, yeah, they should have notified us." Crawford said Thursday. "But they went to a great deal of effort to prevent any environmental damage from occurring. Most of the time we are agreeable to things that will prevent more serious problems from occurring."

Sealed with soil

Geological testing done at each of the Seaboard sites in northern Morton County show the soil has a capacity to seal a lagoon bottom many times greater than state requirements.

Laboratory and on-site compaction tests performed by Agricultural Engineering Associates, Uniontown, showed the soil - which in the ground had about a 12-percent moisture content - could be compacted to allow almost zero seepage.

A test at Farm No. 4 showed the compacted soil, described as "tan silt," would allow water penetration at a rate less than 3/10,000 of an inch of per day, according to test records on file with Seaboard permit documents at KDHE.

State environmental laws allow a seepage rate of up to 1/4 of an inch per day.

But despite its admirable test results, wind and wave action did heavily damage the earthen liner of the lagoon, which was only a few months old.

Seaboard has since placed which was to a full or

heavy, woven synthetic liners in the lagoon, with one strip near the bottom, where the damage occurred, and another strip up on the side, at a level where the company hoped to maintain the lagoon.

In addition, Seaboard soon will install rope-linked buoys of Styrofoam blocks along the edges of the lagoon, to take the brunt of wind-driven waves and protect the earthen liner, he said.

The Styrofoam buoys will be four to six feet long, about 9 inches thick and 9 inches tall, he said.

Once in place, the buoys will shield the lagoons during the months it takes to bring them up to a desired level, where the liners then would repel the waves.

The lagoons are designed to be operated with at least 11 feet of liquid in them to allow efficient digestion of the sewage by anaerobic (no oxygen required) bacteria. Fresh water is added to the liquids to keep from "overloading" the lagoon and killing off the bacteria.

If a lagoon is overloaded, the bacteria die, the lagoon goes stagnant and its stench is terrible. said Chance Morrow, a KDHE technician based in Dodge City

Water pipe damaged Seaboard hog lagoon

By Alan Montgomery

The Hutchinson News

ELKHART - While repairs have been made on one corner of a gigantic Seaboard Farms hog sewage lagoon 8 miles northeast of Elkhart, company officials are still trying to mend fences with the Stevens County Zoning Board in Hugoton.

Seaboard spokesman Jerry Frizzell said a routine inspection late last week by company personnel detected the damage to the triangular lagoon's packed earthen liner. The damage occurred as high volumes of water were being pumped into the lagoon through a 10-inch pipe at its western corner.

Despite the presence of a "splash pad," made of a pair of slatted concrete slabs and a big pile of coarse rock, the water blast eroded a 10-foot-wide crater under and next to the splash pad and cut through the liner to a depth of about 24 to 30 inches, said Chance Morrow, a Kansas Department of Health

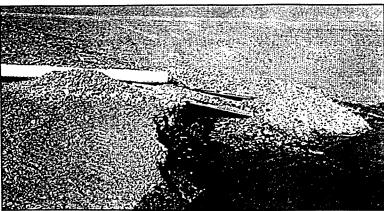


Photo by Alan Montgomery

Water from this hog-sewage inlet pipe has undermined the rock and concrete splash guard near the bottom of a Seaboard Farms lagoon site east of Elkhart. The washout went about 30 inches into the side of the lagoon, penetrating its packed-earth liner.

and Environment site inspector who was notified last Friday by Seaboard of the lagoon problem.

According to Seaboard design plans on file with KDHE, the lagoon's liner consisted of an 18inch-thick layer of compressed, silty soil. A number of Southwest Kansas residents, such as Lyndell Herron, of Manter, for months have expressed fears the lagoon liners would leak, allowing sewage liquids to get into the area's aguifer.

Morrow said he was on an inspection route Friday that took him to a number of livestock operations in Southwest Kansas. The damaged lagoon, his list.

The massive lagoon, measuring 1,009 feet long on two sides and 1.318 feet on its third side, was built to receive effluent from three Seaboard hog production farms located just east, north and west of the enclosure. Two of the hog farms there are still being built; one is about 50 percent populated with swine, he said.

Morrow said engineering tests at the site show its lagoon liner is built with compacted silt materials that meet state guidelines for their ability to seal the enclosure.

Stevens County flap

While regulators are satisfied at present with the Wilburton site, Seaboard has a way to go to gain approval to build three hog farms at their Feterita site. about 18 miles east, in Stevens County.

At Monday's meeting of the Stevens County Commission, the board declined to act on a zoning board recommendation

near Wilburton, already was on regarding the Feterita sites. Instead, the county commissioners sent the matter back to the zoning board for further study, a county clerk's spokesman said.

Stevens County Commissioner Dale Sutton last week said the zoning board had approved the Seaboard request for a conditional use permit for the land at the Feterita site, but later learned the three farm sites had been labeled by KDHE as "not suitable for development" for hog farms because of the soil's sandy content and the lack of available farmland upon which hog sewage liquids could be spread as fertilizer.

Sutton said the county commission wants the zoning board to check with KDHE and Seaboard to determine the status of the proposed Feterita projects and the prospects for making the land suitable for such facilities.

The next meeting of the Stevens County Zoning Board is set for Dec. 18 at the county courthouse.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT REGULATIONS ALLOW 1/4 INCH OF LEACHING PER DAY, WHICH ALLOWS THIS (13 ACRE) PIT TO LEACH 29.694,028 GALLONS OF EFFLUENT EACH ACRE FEET LEACHING INTO OUR WATER TABLE YEAR!!! 81,353 GALLONS PER DAY OR 3389 EVERY YEAR, WHICH TOTALS: GALLONS PER HOUR.

KDHE still undecided on taking action on Pratt cases

By Laura Hamod Zuckerman

Special to the News

PRATT – The Kansas Department of Health and Environment has not determined whether a confined cattle operation near Pratt was in violation of state and federal

discharge regulations when it experienced an overflow of its lagoon system in mid-June.

Greg Crawford, KDHE spokesman, said this week that the agency has not decide whether Pratt Feeders – in a separate incident – violated

provisions of the federal Clean Water Act the week of June 15 when it pumped rainwater from waste-disposal cropland into the Natrona Creek, a tributary of the South Fork Ninnescah River.

Randy Rathbun, U.S.

Attorney for Kansas, declined earlier this week to either confirm or deny that his office was investigating Pratt Feeders.

Jerry Bohn, general manager of Pratt Feeders, said KDHE

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KDHE

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officials have told him the lagoon spill and pumpage incidents "were authorized discharges."

Crawford said the investigative process was "open-ended," adding, "We haven't notified any of the landowners along the creek because there has not been a need to notify them of any action that's occurred."

Officials with KDHE also did not see a need in June – shortly after the lagoon release – to contact landowners along Natrona Creek to warn them about potential health hazards posed by the waste-infected waters.

In a series of tests conducted by a KDHE lab, water samples lifted on June 15 from Natrona Creek revealed that it was teeming with contaminants far in excess of state water quality standards. Soaring levels of fecal coliform and fecal streptococcus were among the pollutants identified by KDHE tests.

Roy Johnson, a streamside landowner, lambasted KDHE.

"Nobody has contacted me about anything. They (KDHE officials) never do anything. That's the way the ball bounces. They didn't watch out for our welfare before, why start now?" he said.

Crawford refused to comment on any aspect of the agency's findings, saying that — because the information was "enforcement sensitive" — he was neither at liberty to discuss potential enforcement action nor the results of KDHE water tests.

A telephone call by The News to a KDHE attorney was returned by Crawford: "There won't be anything that we will be able to allow her to elaborate on for us," he said. Attempts to contact science and medical officers with KDHE also were intercepted by Crawford.

Bohn said that he shares the concerns held by Natrona Creek landowners. He said excess rain has been the culprit behind all unexpected lagoon releases into the stream.

"They (landowners) would understand 16 inches of rain in six weeks. These are acts of God; there isn't much that can be done about it," he said.

Pratt feeders did try to ward off potential problems in 1987 when – despite an engineering report that suggested the feedlot had more than met state and federal discharge requirements – the cattle operation of its own volition added another lagoon for waste storage.

"We've tried to avoid having

spills occur. We don't feel that we've done anything wrong." said Bohn.

Seaboard's hogs will soon go out in style

By Alan Montgomery

The Hutchinson News

RICHFIELD – In about 30 days, Seaboard Farms will discontinue its practice of burying hundreds of dead hogs in trenches at its hog production sites in Southwest Kansas.

That was the word Tuesday from Jerome Frizzell, Seaboard's director of safety and environmental affairs, at the company's Shawnee Mission headquarters.

When the company's hog slaughter plant in Guymon, Okla., opens in December, it will have a rendering plant, which will process all byproducts from the slaughter plant, such as bones, hooves and offal, as well as the carcasses of hogs that die at the Seaboard production farms, Frizzell said.

Hogs

Continued from Page 1

Lyndell Herron, a western Stanton County farmer who opposes the influx of corporate hog farms into the region, said he was glad to hear the company soon would stop burying the hogs on site.

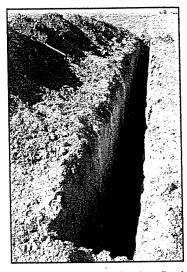
Herron said he was worried about possible ill effects on the area's groundwater if the company were to continue the practice of mass burial of hogs.

Frizzell said about 1 to 1.5 percent of the hogs at each corporate farm die each year, from one malady or another. The farm sizes range from 2,000 to 23,000 hogs.

"Hogs, like people, are susceptible to many kinds of respiratory ailments and other illnesses," he said. "Sometimes they just lay down and die."

The current practice for disposal is to have a Seaboardowned backhoe and operator come in and dig a long, deep trench and gradually fill it with hogs, lime and dirt.

Once the rendering plant is open, Seaboard will have its own fleet of rendering plant



This deep trench is the final resting place for hogs that died of various ailments at a Seabord Farms facility in northern Morton County.

trucks that will come out and empty special garbage bins placed at each site. Each truck will raise the bin and dump it in the truck, then spray the bin with disinfectant as a precaution to control disease, Frizzell said.

At the rendering plant, the dead hogs and slaughter plant byproducts will be chopped, blended and dried to produce

mass quantities of bone meal, which is used as a protein supplement for dog and cat food, as well as a feed additive for livestock such as cattle and poultry – and hogs, he said.

The hogs at the Seaboard farms will never know that they may be eating protein from one of their genetic ancestors, Frizzell said.

Another primary product of the reprocessed hogs is "choice white grease," used as a source of fat in animal feeds as well as a lubricant for the steel industry, said Alan Sactor, of the Texas-based Protein and Fat Technologies. He's working as a consultant for Seaboard at its Guymon plant, now under construction.

For some reason, the hog fat is just the right consistency to use in the rolling of steel ingots. The ingots are lubricated with the fat before they are smashed into rolls of steel sheeting, Sactor said.

He said dead hogs from the Seaboard farms will comprise about 2 percent of the volume of the hog parts coming into the rendering plant. The other 98 percent will be byproducts coming from the slaughter plant.

Endence suggests KDHE understaffed, overmate ed

In a time when agriculture and business interests are chafing under what they consider needlessly restrictive government rules, some Kansans are calling for tougher, enforcement of state laws that regulate large-scale hog operations.

Foes of corporate and privately owned large-scale hog farms accuse the Kansas Department of Health and Environment — the agency in charge of review and approval of feedlot permits — of turning a blind eye to what they say are the environmentally unsound and sometimes illegal practices of mega-pork producers.

In central Kansas, a group of Reno County farmers and homeowners has organized to fight a neighboring pig farmer who recently applied to install a 5,000-head hog facility. The rural Hutchinson residents argue that their private water wells — which draw water from the Equus Beds Aquifer — already fail the EPA-established safety standard for drinking water.

They fear the estimated 33 tons of manure per year — heavy with nitrate and phosphate — produced by C.B. Showalter Hog Farm will contaminate surface and ground-water supplies.

The bulk of large pig farms in Kansas store hog waste in open sewage basins, or lagoons. Operators routinely spray the wastewater on crops.

Gene Yoder, who raises cattle in the area, cannot contain his fury when he talks about the state regulatory agency.

"The Kansas Department of Health and Environment ... that sounds like it should be a group that protects our water and environment and they don't seem to want to do that,"

KDHE UNDERSTAFFED CONTINUED ON PAGE 6-B

continued from page 1-B

he said.

KDHE officials point to the Legislature as the cause for some of their woes. In an attempt last year to add to the six feedlot inspectors expected to regulate the state's 3,000 feedlots, the Bureau of Water — the agency's arm in charge of permits and inspection — asked that the fees for an operation in excess of 1,000 hogs increase from \$30 to \$1,539 per year.

The proposal was turned down by the Legislature's agriculture committees

Larry Hess, chief of the Livestock Waste Management Unit with KDHE's Bureau of Water, said feedlot inspections necessarily take a backseat to other responsibilities.

"If I've got people tied up issuing permits, doing site appraisals and all that good stuff, then I don't have staff time to track down all the complaints that come into this office,"he said. "Each complaint would consume a one-person day."

Instead, the six feedlot inspectors in the state — each attempting to regulate more than 500 operations — devote much of their time to processing applications, pushing enforcement of regulations onto the back burner.

Hess said the agency tries to investigate each complaint within one week.

Asked if evidence to confirm violations — such as run-off waste from a lagoon spilling into a waterway — still is there within a week's time, Hess responded, "Well, that's a problem, but we try to do as much as staff time permits."

Hess defended the agency's performance, noting that hog lots in excess of 1,000 animal units — or 2,500 pigs — are inspected once a year.

KDHE documents tell a different story.

According to records from KDHE's own data base, 42 of the state's 77 large-scale facilities — 55 percent — have not been inspected within the past 12 months, and many haven't for years. The same documents reveal that permits have expired for more than

half of the state's mega hog lots. Eleven of these facilities are missing permit expiration or inspection rate data.

Hess conceded that close to 50 percent of the state's 3,000 feedlots are operating without permits that list the steps operators have to take to forestall pollution.

Even when KDHE officials do discover that feedlots are not following the letter of the law or state guidelines, operators rarely receive so much as a slap on the wrist.

"We might have 100 non-compliances a year, but some of those were the equivalent of going five miles over the speed limit," Hess said.

Only five to 10 of those 100 operators found in violation typically are fined. Hess said the agency is reluctant to impose financial penalties, noting, "If we can get the operator to take care of the problem, we much prefer to work with him."

The state agency has found itself responding to people who say it isn't tough enough on feedlot operators who are polluting illegally, while fending off criticism from agriculture lobbying groups who accuse it of over-regulating.

"We make no one happy," said Hess. KDHE officials recognize that more controversy will arise around large-scale pig farms as those operations increase around the state.

So much so, in fact, that anyone who requests an application to open a hog lot receives an information packet from KDHE that contains an article with the following advice to prospective mega operators:

"Establishing good neighbor relations is one way to avoid a lawsuit. If you have a hog operation that smells, throw, a barbecue for your neighbors eyery year."

But a barbecue won't suffice.

"Everything we have in the world is tied up in our farm," said Valerie Hornbaker, neighbor to the Showalter Hog Farm in Reno County.

"They're taking homes away from people out here. Even if we wanted to sell our place, we couldn't. Who would want to move in, what with that, stench and contaminated water?"

Thursday, January 25, 1996

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KDHE Reps Volley Questions And Answers On B

KDHE Warnings

A special warning was delivered to those against the pig farms.

Feed lots with more than 300 animals are required to be registered with the KDHE. If an unlisted established feeding unit of 300 or more is closer than 1/4 mile to a neighbor and that neighbor informs them, the KDHE has to close that unit down. This is of no effect if less than 300 head is involved.

Also, the men told the group if you're going to require special waste treatments, it's also going to have to be applied to tail water pits, the livestock industry, land fills, waste water treatments and all such other installations.

The Hutchinson News

Wednesday, July 19, 1995, Hutchinson, Kansas, 24 pages, Year 124, No. 1

KDHE inaction blasted

While report clearly showed high levels of pollution in Pratt stream, agency failed to issue warnings

By Laura Hamod Zuckerman
Special to The News

PRATT – Testing by the Kansas Department of Health and Environment of water samples taken last month from a Pratt County stream revealed the presence of fecal bacteria 325 times greater than the standard

considered safe for swimming.

KDHE didn't alert streamside landowners or the general public that Natrona Creek, a tributary of the South Fork of the Ninnescah River, was awash with raw sewage that contained such microorganisms as fecal streptococcus..

KDHE spokesman Greg Crawford said this week the agency didn't alert the public to health risks posed by Natrona Creek contamination because it had no confirmation that any errs existed.

m not at a stage to say whether the water was or was not polluted," Crawford said.

But a KDHE lab report tells otherwise.

On June 18, the Kansas Health and Environmental Laboratory, an arm of KDHE, found that water samples col·lected June 15 from a bridge upstream of Highway 61 on Natrona Creek contained animal-waste byproducts far in excess of state and federal water quality standards.

KDHE lab tests revealed the presence of fecal coliform – bacteria that live in the lower digestive tracts of animals – at greater than 65,000 colonies per 100 milliliters of water. That measurement is the equivalent of about half a glass of water.

The state standard for fecal coliform is 200 colonies per 100 milliliters of water for swimming and 2,000 colonies per 100 milliliters of water for non-contact recreation, such as boating or fishing. Coliform bacteria can be harbored by either warm-

blooded or cold-blooded animals.

According to the KDHE lab report, the same sample showed streptococcus colonies at 5,600 per 100 milliliters of water.

"I don't have any lab report," Crawford said Tuesday, "so I don't know if there is anything existing ... I'm not at liberty to talk about it."

The KDHE report was obtained from a private resident, who requested the information from Ken Brunson, nongame program coordinator for Kansas Wildlife and Parks.

"No one has told me I can't give out that pollution information," Brunson said Tuesday.

Rodney Seidel, a frequent user of a Pratt recreation area that draws its water from Natrona Creek, said he was outraged state health officials didn't warn him about the potentially harmful pathogens flowing through the stream.

See KDHE, Page 12



On June 15, 1995, the Kansas Department of Health and Environment collected water samples for analysis from Natrona Creek in Pratt County. The results are as follows:

ANALYSIS	STANDARD (acceptable amount)	RESULT	
Fecal Coliform (Bacteria that live in the lower digestive tracts of animals)	*Measured in organisms per 100 ml 2,000 (non-contact recreation) example: fishing 200 (contact recreation) example: swimming, wading	Greater than 65,000	
Fecal Streptococcu (Strep indicates that the waste originated from warm-blooded animals)	Measured in organisms per 100 ml IS No acceptable amount set	Greater than 5,600	
Ammonia (Indicates breakdown of urinary waste)	Measured in milograms per liter (mg/L) 8.24 (acute) example; an overflow or runoff 1.9 (chronic) example; leaking faucet	16.09 Sample tested at: perature=23C_pH=8.1	
Dissolved Oxyger (Oxygen in water breathed by fish)	Measured in milograms per liter (mg/L) 1 5.0 Jower number indicates a de oxygen, leaving less available		

Hutchinson News graphic by Jim Heck

DHE

Continued from Page 1

Seidel said his children this month have been swimming in a pond on Seidel Recreation, a golf course and fishing facility owned by Seidel's father. The facility is located about 3 miles east of a feedlot that last month spilled cattle waste into the creek.

"I'm worried for the health of my kids. My 4-year-old was getting water into his mouth and spitting it out. This scares me so much," Seidel said.

Crawford defended the agency's decision to not inform streamside landowners.

"There's not supposed to be swimming," he said. "We have a general advisory against drinking untreated water. The reason for the advisory is there may be

'No one from Health and Environment notified me to tell me the creek is so polluted. I've got kids swimming in it. The kids haven't gotten sick – and they'd better not, or somebody is going to pay for it.'

- Ralph Seidel

bacteria in the water at any given time."

Jerry Bohn, general manager ratt Feeders – a confined catperation about 5 miles north or Pratt on U.S. 281 at the headwaters of Natrona Creek – on June 15, said excess rain in May and June forced the facility's lagoon system to spill its contents into the creek "some time" during the week of June 4.

Crawford said no water samples have been collected from Natrona Creek since June 15.

"I don't know that there is any need to," Crawford said. "We do water sampling to confirm the activity. Once water is downstream, it's gone."

Asked if the contaminated water had gone downstream, Crawford replied, "That's all part of the investigation."

Dr. Carl Prophet, division of biological sciences chairman at Emporia State University, said the presence of strep indicates that the waste could only have originated from warm-blooded animals. He said water rife with fecal matter could imperil people's health.

"You wouldn't want to swim in water with that level of fecal coliform. If the water were swallowed, it could result in symptoms associated with intestinal flu such as loose stools or vomiting," he said.

Dr. Tom Pierce, field services director with the Center for Environmental and Occupational Health at the University of Kansas Medical Center in Kansas City, Kan., said people with wounds or open sores should avoid contaminated water.

"Individuals who have wounds should not make contact with microorganisms that can colonize on those sores. If strep is identified in a swimming area, it's capable of colonizing on those sores," he said.

Pierce said other hazards associated with strep exposure are respiratory and gastrointestinal infections. People who have been swimming in manure-laden water shouldn't be alarmed, he said.

"Most people who swim in that stuff are never going to have a problem. (But) on the precautionary side, they shouldn't continue to do so because infection is possible," Pierce said.

Duration of the lagoon release into Natrona Creek ranged from 24 to 30 hours, Pratt Feeders manager Bohn said on June 15. In the same interview, Bohn said KDHE was notified the week of June 4 about the lagoon overflow. KDHE spokesman Greg Crawford this week said that notification by Pratt Feeders of the discharge event circumvented a violation of requirements established by state and federal feedlot permits.

Some confusion surrounds the date that Pratt Feeders alerted KDHE. Crawford said KDHE was alerted to a lagoon release by Pratt Feeders in late May and an agency official was sent to the site. Crawford said he could neither reveal the date the official visited the feedlot nor the official's name. He said information surrounding the incident or incidents was "enforcement-sensitive" because the agency is engaged in an ongoing investigation.

Crawford said one reason users of the Natrona Creek may not have been notified about unconfirmed contamination is that records at KDHE suggest that the stream is designated for two uses: special aquatic life support and non-contact recreation.

In a separate incident, Bohn on June 15 said Pratt Feeders that week pumped rainwater from waste-disposal cropland into the creek.

Whether the feedlot violated provisions of the federal Clean Water Ac

Meanwhile, landowners along Natrona Creek are tired of the "hush-hush" atmosphere, said Ralph Seidel, owner of Seidel Recreation, referring to KDHE.

"No one from Health and Environment notified me to tell me the creek is so polluted. I've got kids swimming in it," Seidel said. "The kids haven't gotten sick – and they'd better not, or somebody is going to pay for it.

"There could be a very dangerous health situation running through this county and no one wants to do anything about it. You never know what's in this water."

Jesse Moore, who lives less than a mile east of Pratt Feeders, has his own suspicions.

"I'm worried that all this pollution has had an impact on our drinking water wells. I have a small granddaughter; I only let her drink bottled water now," he said.

Moore said he is planning to have his water tested.

"Maybe a year ago, people from Pratt Feeders came and took samples. They wouldn't give me the results of their tests," he said.

KDHE: 3 Seaboard hog farms have yet to gain approval

By Alan Montgomery

The Hutchinson News

HUGOTON - A Seaboard Farms official supplied incorrect information to the Stevens County Zoning Board during a presentation Monday night, according to Kansas Department of Health and Environment site-inspection records in Dodge City and Topeka.

The chairman of the zoning

board Tuesday said the board would review a tape recording of the meeting.

"If somebody supplied incorrect information to the board, somebody is going to have to pay the piper," said Bill Hittle, zoning board chairman.

Mark Campbell, vice president in charge of land acquisi-

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KDHE

Continued from Page 1

tion for Seaboard, Monday night told the zoning board KDHE had given "preliminary approval" to Seaboard's plans to build three hog production farms just south of Feterita, 8 miles southwest of Hugoton.

Minutes later, after more than a dozen area residents spoke out against the projects, the board approved Seaboard's request for a special use permit to use the land for the hog sites.

But inspection reports on file at the KDHE district office in Dodge City showed a KDHE inspector in recent months had rejected the three sites, known as Seaboard farm sites No. 221, 223 and 225, because the ground was too sandy and there was no cropland on which to safely spread hog sewage effluent. The land Seaboard acquired with the sites now supports only native grasses and there are no existing studies to show that hog effluent can be spread on grasslands without damaging it, KDHE technician Chance Morrow wrote in his site inspection report.

Asked Monday night about the state report, and how it differed from his talk before the zoning board, Campbell repeated his claim that the company had KDHE's "preliminary approval" of the sites.

The soil is sandy, he said, but the lagoons can be built and lined with bentonite clay or other suitable materials that could be hauled into the site.

As for spreading effluent, "there is plenty of land" there for that purpose, he said.

Kansas State University officials have indicated they may do research and develop a plan within two or three years that could show how to spread the effluent on grass without hurting it, he said.

Campbell then again repeated that his company had received "preliminary approval" on the suitability of the sites, after a review of the sites by KDHE.

Campbell pointed to two plastic-bound booklets in a pile of papers on a table beside him and said the approval reports were in those books. He then declined to let them be read by anyone.

"I'd rather not at this time," he said.

Campbell was incorrect in his "preliminary approval" claim, said Greg Crawford, spokesman for KDHE, Topeka.

When a site receives prelim-

inary approval from the state agency, its staff issues a draft permit to the applicant, Crawford said.

But Seaboard sites 221, 223 and 225 are "unsuitable in their present state," and no preliminary approval or draft permit has been issued to the company, Crawford said Tuesday.

There might be modifications to make them suitable in the future, but at the present, they are not, he said.

Števens County Zoning Board member Clifford Shuck said the three Seaboard sites met county zoning regulations, but he wasn't happy to hear about the misinformation about the KDHE approvals.

"I recall him (Campbell) saying they had KDHE approval," he said. "It's got us all befuddled. They're twisting some new angles on us we haven't seen yet."

The zoning meeting and the confusion over site approval came less than a week after a KDHE records review by The Hutchinson News showed Seaboard had violated its water pollution control permit at its No. 4 and 5 farms in northern Morton County in late October, when thousands of gallons of effluent were pumped through a temporary, above-ground pipeline from farm No. 4 to the

lagoon at farm No. 5.

That action was taken without prior KDHE review or approval, although it violated the permit restrictions for both farms. Seaboard performed the transfer as fast as it could, after wind and wave action cut through the compacted "tan silt" liner of the massive lagoon at farm No. 4.

KDHE officials said Seaboard worked hard in that incident to avoid environmental damage — but its permit required it to have cropland available, with an irrigation rig ready, for exactly such emergencies.

Seaboard said it was unable to apply the effluent to farmland it had reserved for that purpose because of ongoing water test-well drilling efforts in the area.

After a review of the October incident, KDHE chose not to levy fines to the company, but still described the incident as a permit violation for both farms.

At the Monday night zoning meeting in Hugoton, Seaboard Director of Safety and Environmental Affairs Jerry Frizzell said news coverage of the October incident was too harsh. Seaboard had entered a regulatory "gray area" in the pumping incident, but it wasn't really a violation, Frizzell said.

Robert And Mary Lou Figgins 7536 W. Road 11 Manter, KS 67862 February 12, 1996

The Kansas State Legislature Topeka, Kansas

Honorable Congressmen and Senators:

We are writing to express our concerns about the mega hog farms, and others confined feeding operations. We raise irrigated wheat in Southwest Kansas with very tight margins. We want the chance to actually vote on whether these types of operations are allowed in Stanton County. It is our understanding that the current wording of the legislation will not allow us to vote because the original county approval was more than one year ago. Please give us the chance to rescind this because there are a lot of issues that have come to our attention that someone should have been honest and forward about a long time ago. It is our belief that Seaboard and possibly our Commissioners neglected to give us the information necessary to have an honest choice in this matter. Our concerns are as follows:

Depletion of our limited water supplies.

II. Contamination of our water supplies. We need monitoring that will allow us to detect a problem before it reaches the ground water rather than afterward! Possibly with lysimitors.

III. These operations need to be bonded and insured in case they have a spill or they abandon a site.

IV. Furthermore, we do not want to see this dishonest corporation, called Seaboard, to be permitted to receive any more low interest loans through the Kansas Development Finance Authority!

We sincerely hope that you will represent our views outlined above. We wish that we could make the trip to be there in person, but since that is not possible we look forward to reading about a favorable outcome in the newspapers.

Nahert Figgina May Law Figgins

Robert and Mary Lou Figgins

Senate Energy & Natural Res. February 15,1996 Attachment 7



Kansas Chapter

Testimony of Bill Craven
Kansas Natural Resource Council and
Kansas Sierra Club
February 14, 1996
S.B. 604

Thank you for the opportunity to express our support for this bill. The committee is undoubtedly aware of the disasters caused by spills from large mega-swine lagoons in the past several months in North Carolina and Missouri. Millions of gallons of waste were released into rivers and streams because of waste lagoons which were breached, by various causes. In those states, the result was contamination of surface water.

In western Kansas, the risk is not to surface water, but to groundwater. The committee doesn't need a lot of testimony on the fact that protection of groundwater quality and quantity is the key to the very survival of western Kansas.

Kansas has no standards which protect groundwater from pollution. The only tools we have are the standards which govern wastewater lagoon controls. This bill is attempts to correct deficiencies in our current approach. The folks who testify from southwest Kansas will detail the specific problems which have arisen in that part of the state.

We support all of the provisions of S.B. 604, but we would respectfully request consideration of two amendments. On page 6, line 7, we would not oppose increasing the animal units to a higher number. That way, no additional regulatory burden would fall on smaller producers.

Second, as described in the attached letter from Craig Volland, an engineer who has looked into this issue, it seems prudent also to require the installation of lysimeters at these lagoon facilities. These are devices which sense increases in soil moisture and can provide early warnings of trouble much before groundwater monitoring wells would do so.

Craig Volland's letter makes the following additional points: (1) Various factors, including extremes in weather, cause these lagoons to leak. In the type of soil found in southwestern Kansas, if the required clay liner fails, the escaping waste will encounter conditions of medium to high permeability. In other words, there isn't much to stop this waste from percolating down into groundwater. KDHE standards anticipate a certain amount of leakage. The letter states that the KDHE standard for infiltration is 1/4 inch per day. For the size of the lagoons common in southwest Kansas, that works out to 2.5 million gallons per year per acre of lagoon area, year after year.

We regard this legislation as creating prudent requirements necessary to protect the vital groundwater supplies of western Kansas. Thank you for the opportunity to testify.

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SPECTRUM Technologists

609 N. 72nd St. Kansas City, KS 66112 (913) 334-0556

2-13-96

Bill Craven Sierra Club 935 1/2 S. Kansas Av. Topeka, Ks. 66612

Subj: Comments on Ks. Senate Bill 604

Dear Mr. Craven,

This is response to your request for comments on Kansas Senate Bill no. 604 which seeks to improve mandatory permit conditions for large hog farm lagoons currently installed or being installed in southwest Kansas. I will limit my comments to certain technical components of the bill.

Lagoon Leakage Monitoring. It is my understanding that Seaboard, Inc. employs anaerobic lagoons approximately 20 feet deep with soil liners obtained on-site. Recently they have installed some plastic shields at approximately the pond surface level to protect against wave action. In recent years researchers have found that some animal waste lagoons, including hog manure lagoons, that heretofore had been considered to be sealed, have in fact been leaking^{1,2,3}. A recent review of seepage from animal waste lagoons concluded that some lagoons appeared to seal properly while others did not, that rates of seepage varied greatly, and that these variations did not appear to correlate with soil type. In other words it was difficult or impossible to predict if an animal manure lagoon would leak and at what rate.¹

Compressed soil liners of the type employed by Seaboard would, in my opinion, have limited capacity over time to resist disturbances such as cracks from freeze/thawing and wetting/drying cycles caused by pond level fluctuations. These conditions could be extreme in the climate of SW Kansas. Since manure lagoons are supposed to be pumped periodically, such fluctuations are an inevitable part of the operation of such a facility. In comparison, sewage lagoons maintain essentially a constant liquid level. Further, soil liners may be subject to gases released by microbial activity in soil beneath the bottom of the lagoon and to the actions of worms and rodents.

According to several permit application documents I've reviewed, some manure lagoons in Morton, Grant and Stanton Counties are proposed for installation in soils classified as sand, fine sand, silty sand and sandy silt that predominate at a depth of between 10 and 25 feet where the bottom and lower side walls of the lagoon are located. If the soil liner fails, escaping liquid will encounter conditions of medium to high permeability.

Apparently the KDH&E must anticipate leakage of facilities of this type because their infiltration standard is 1/4 inch per day. This works out to 2.5 million gallons per year per acre of lagoon area, year after year.

Since one cannot predict whether these lagoons will leak or not, it would seem essential to require monitoring devices and protocols to protect the groundwater in the area. Senate Bill 604 calls for monitoring wells to be installed near the facilities. Since the level of groundwater in counties where most of these facilities are currently being installed is 100 feet or more, monitoring wells will not detect leakage until a large amount of contamination has been released. Accordingly, in addition to the monitoring wells, I recommend that the permit holder be required to install lysimeters in the vadose zone just beneath the lagoons. The vadose zone is the soil above the water table that is not saturated with water. A lysimeter is a device that senses changes in electrical conductivity that signal an increase in soil moisture, ie. leakage. These should be designed and placed by a certified hydrogeologist. Normally one lysimeter would be placed at each corner of the lagoon and one in the middle. In addition a certified meter should be required to measure and record the inflow to the lagoon. This information should be regularly reported to the KDH&E along with calculations estimating evaporation losses and any leakage.

Certification of Specifications. Section (k)(2) requires that a registered engineer or consultant certify that the facility is built to specifications in the waste management plan. While this may seem elemental, I would note that the Missouri Department of Natural Resources encountered considerable difficulty in investigating several large manure spills in Northern Missouri because lagoons were either built without a permit or were not built in accordance with plans and specifications approved with the permit. Pipes were not where they were supposed to be, etc. Thus certification is a good idea.

Sincerely.

Craig S. Volland QEP

President

References:

- 1. D. Parker, D. Schutte, D. Eisenhauer and J. Nienaber, "Seepage from Animal Waste Lagoons and Storage Ponds Regulatory and Research Review," <u>Proceedings of the Great Plains Animal Waste Management Conference</u> Assignatural Council Publ. No. 151. Denver Colo., pp 87-98.
- 2. Dennis D. Schulte, PHD, PE, Univ. of Nebraska, "Oral Testimony to be Given to the Missouri Clean Water Commission," 31 August 1994.
- 3. "New studies show lagoons are leaking," Raleigh News and Gheerver, Feb. 19, 1995.



Senate Bill 604

presented by

Mike Jensen

on behalf of the

Kansas Pork Producers Council

Mr. Chairman and members of the committee, I am here to present testimony in opposition to SB 604. We have a number of concerns with this bill. The key points to our opposition are:

- * This bill would impact all swine operations with over 1000 animal units. This is equivalent to only about a 325 sow farrow to finish operation.
- * Current KDHE policy/rule/regulation/statute requirements are based on the supposition that swine, beef and dairy livestock waste is equal in composition when compared on an equal weight and moisture basis.
- * KDHE "rules" already accommodate different soil types by requirements that set minimum percolation standards.
- * The requirement of surety bonds for these operations is an unfair expense that places the Kansas swine industry at a competitive disadvantage to other states' swine producers as well as other Kansas livestock, poultry and dairy producers.

February 14, 1996 Attachment 9