

DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

May 9, 2016

Dr. Barry Kerkaert  
Kodiak Pork, LLC  
P.O. Box 188  
Pipestone, MN 56164-3211

Re: Kodiak Pork, LLC Manure Management System  
General Permit Application Review

Dear Mr. Kerkaert:

The Department of Environment and Natural Resources has received four copies of your application for coverage under the *General Water Pollution Control Permit for Concentrated Animal Feeding Operations* (general permit). The proposed manure management system will be located in the Southeast  $\frac{1}{4}$  of Section 3, Township 109 North, Range 48 West in Brookings County, South Dakota.

Your proposed manure management system is for a new housed lot feeding a maximum of 7,864-head of production swine consisting of 5,328 gestating sows, 936 lactating sows, 960 gilts, and 640 nursery/grower swine (640 swine weighing less than 55 pounds and 7,224 swine weighing 55 pounds or more). The proposed system consists of a farrowing barn with shallow pull-plug pits, a gestation barn with a deep pit, a gilt developer unit (GDU) barn with deep pit, piping, a mortality composting building, and no acres of drainage area. The liquid manure from the farrowing barn will gravity flow into the deep pit beneath the gestation barn. Each deep pit is designed with at least 365 days of liquid slurry storage.

We have reviewed and hereby conditionally approve the plans and specifications for your project. This approval expires on May 9, 2018, unless construction of the manure management system has been started by that date. Requirements that you must implement are listed on the following pages. Failure to implement the requirements prior to operation of the manure management system will invalidate this approval.

Two copies of the approved plans and specifications are being retained for our files. If any deviations are required from the approved plans, those changes and all change orders must be

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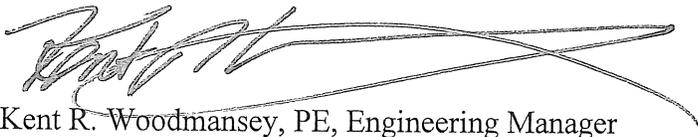
approved by the department prior to construction. A complete set of as-built plans will be required if any major deviations result.

Upon completion of construction, the enclosed Notice of Completion must be returned to the department. **You cannot populate the proposed barns or use the proposed manure management system until the department issues a Certificate of Compliance and permit coverage.** Continued compliance is dependent upon you performing proper operation and maintenance activities. You will be liable for any noncompliance with applicable South Dakota environmental laws or regulations.

Our review is primarily to assure that the system meets the requirements of the general permit and does not cover items such as, quality of material, structural soundness, electrical, and mechanical design features. Approval of the plans and specifications does not in any way release the producer from the responsibility of ensuring that the project will be an operable facility when construction is completed.

If you have any questions regarding the content of this letter, please feel free to contact Darold Krein, Feedlot Permit Program at (605) 773-3351. Thank you for your cooperation.

Sincerely,



Kent R. Woodmansey, PE, Engineering Manager  
Feedlot Permit Program

Enclosures: Construction Schedule Postcard  
Notice of Completion Form

cc: Todd Van Maanen, PE, Stockwell Engineers, Yankton, SD  
Luke Muller, F.D.A.L.G., Watertown, SD  
Brookings County Commissioners

## REQUIREMENTS

The following requirements must be implemented before we will issue a Certificate of Compliance and coverage under the general permit. Failure to implement these requirements will invalidate this approval.

### Plans and Specifications

The plans and specifications review is to determine whether seepage, storage, and other design requirements will be met.

#### 1. Phase II Area

Plan sheet 1 identifies an area north of the proposed farrowing barn which may be used for a Phase II expansion. Plans and specifications for any Phase II construction must be submitted to the department for approval prior to the start of construction. If the expansion will increase the number of animals housed at the site, a public notice is required and revised volume calculations must be submitted.

#### 2. Field Tile Lines

The proposed swine barns and mortality composting structure will be constructed in the Southeast  $\frac{1}{4}$  of Section 3, Township 109 North, Range 48 West. Soil boring #3 was obtained from the area where the gestation barn deep pit will be constructed. The boring log indicates water was encountered at a depth of five feet when a field drain tile was drilled through and other field tile lines may be present in the proposed construction area. **All tile lines encountered during construction of the swine barns must be properly plugged and the lines located 50-feet back from any deep pit. Please have your engineer identify the location of all tile lines encountered during construction and indicate on the site as-builts how the lines were plugged and re-routed around the swine barns.**

#### 3. Drain Tile Around Deep Pits

Drain tile or Form-A-Drain is to be installed around the perimeter of each deep pit to be used for leak detection purposes. The sump for the proposed tile lines around the GDU barn will be located in the southwest corner of the deep pit and the sump for the proposed tile lines around gestation barn will be located in the northeast corner of the deep pit. Any water removed from the tile sumps is considered process wastewater and must be placed in the deep pits to prevent a discharge. **Please have your engineer submit as-built drawings indicating which type of leak detection piping was installed around the pits.**

## REQUIREMENTS CONTINUED

### 4. Mortality Composting Building

According to your permit application, you plan to construct a composting building at this site for composting mortalities and have obtained approval from the Animal Industry Board. **The department has received a copy of the approved compost protocols for our files.**

Because manure will not be used in the composting process, department approval of the composting structure is not required at this time. If your plans change and manure or process wastewater will be used in the composting process, plans and specifications must be submitted to the department for approval prior to using the compost building.

The general permit does not allow runoff to occur from the compost building. According to the permit application, precipitation contacting the compost piles will be contained within the barn by the sloped concrete bay floor. The plans do not indicate how the ground along the back of the building will be erosion protected from roof runoff. The department recommends some form of roof runoff control and/or erosion protection for diverting clean water runoff away from the building. The concrete apron outside the barn needs to be kept clean of compost wastes.

### 5. Office Septic System

Your permit application indicates an office area with a proposed septic system will be constructed with the new barns. Plans and specifications for any new on-site system, except those that are conventional on-site systems that treat domestic wastewater, must be submitted to the department for review and approval prior to construction. Your engineer has indicated a certified installer will install the on-site septic system. For more information contact Scott Hipple at (605) 773-3351. **Please have your engineer submit as-built drawings showing the general location of the septic system.**

### 6. Water Supply and Service Line Entry

Your permit application states the water supply for the facility will come from a rural water connection. Please contact the South Dakota State Plumbing Commission at (605) 773-3429 for information on designing and installing water supply lines that are in close proximity to manure containment structures to meet current South Dakota plumbing code. **Please submit as-built drawings showing the location of the proposed water supply piping, and details on how the water line will enter the barns, including information on the use of appropriate backflow preventers.**

## REQUIREMENTS CONTINUED

### 7. Copyrighted Plans

The submitted plan sheets are marked as copyrighted. Plans and specifications submitted to the department for review and approval are public information. South Dakota Codified Law, Section 34A-2-94 and the Administrative Rules of South Dakota, Section 74:52:02:17 are state laws and rules dealing with confidential information. If you have information you believe needs to be kept confidential, the department recommends you petition the Secretary in accordance with this law and rule explaining why the information should be kept confidential. If the Secretary agrees that your information should be kept confidential, the department will maintain the information in a confidential file. Access to the file will be limited as per SDCL 34A-2-94, unless otherwise authorized by a court order.

### General Permit

You will be required to operate your feeding operation and manure management system in accordance with the requirements in the animal general permit.

#### 1. Ground Water Monitoring

Based on the system design, soil boring logs, and other published reports and information, this system does not appear to overlie a shallow aquifer and should not impact ground water. Therefore, a Ground Water Discharge Permit and/or ground water monitoring will not be required. Should the design or operation of the facility change appreciably, new hydrogeological information become available, or any contamination problems be reported, the department reserves the right to reassess the need for possible remediation, monitoring of ground water, or a Ground Water Discharge Permit.

#### 2. Notification

Construction Schedule - You or your engineer must notify the department of the proposed construction schedule for your project to allow our personnel the opportunity for construction inspections. Please fill out the enclosed postcard and return it to us **prior to beginning construction** of the manure management system. If any of the dates change from the ones submitted on the postcard, please notify us at (605) 773-3351.

Other Government - You are responsible for contacting your local planning and zoning office to determine if there are any local ordinances or requirements with which you need to comply. If a stream, lake, or wetland will be dredged or filled during the construction of the feeding operation, then you need to contact the United States Corps of Engineers at (605) 224-8531 prior to construction of the manure management system.

**REQUIREMENTS CONTINUED**

Notice of Completion - The Notice of Completion form must be completed by your engineer and returned to the department when construction of the manure management system is complete. The department cannot issue you a Certificate of Compliance and coverage under the general permit until we receive a Notice of Completion. **You cannot populate the proposed barns or use the proposed manure management system until you are issued a Certificate of Compliance and coverage under the general permit.**

**3. Phosphorus Based Nutrient Management Plan (NMP)**

**A. Annual Soil Testing**

Table 1 on the following page lists the legal descriptions and sampling requirements for all the fields in your approved NMP. Annual soil samples from 0 to 2-feet are required on all manure land application fields prior to manure application. Fields identified as being located over shallow ground water require soil sampling from 0 to 2 feet and 2 to 4 feet prior to manure application. The shaded fields in the following tables require the 0 to 2-foot and 2 to 4-foot soil sampling.

For fields that require additional soil testing from 2 to 4 feet, you have the option to either conduct the initial 0 to 2-foot and the 2 to 4-foot soil test prior to land application or the alternative option to conduct the initial 0 to 2-foot soil test prior to land application and a second 0 to 2-foot soil test within four weeks of harvesting the crop. Please refer to section 1.4.4.4., beginning on page 29 of the general permit, for the annual nutrient management requirements. **You must notify the department in writing if you plan to use the alternative post-harvest soil sampling option instead of the 2 to 4-foot soil sampling requirement.**

**B. Nitrogen-Based Manure Application**

As indicated in your NMP, manure application on the fields shown in Table 1 may be based on nitrogen need as determined from the table on page 29 of the general permit. Please refer to the table on page 29 of your permit prior to land application, to determine the proper procedure for calculating the appropriate application rate for each specific field.

**Table 1: Kodiak Pork, LLC, Nitrogen-Based Manure Application Fields**

CPA-63 Line #	Field ID	County	Legal Description	Available Acres	Soil Sampling Requirements	
					0-2 feet	2-4 feet
1	1	Brookings	N½ of NE¼, Section 18, T109N, R48W	90.4	Yes	No

REQUIREMENTS CONTINUED

CPA-63 Line #	Field ID	County	Legal Description	Available Acres	Soil Sampling Requirements	
					0-2 feet	2-4 feet
2	2	Brookings	SE¼, Section 18, T109N, R48W	88.1	Yes	No
3	4	Brookings	E½, Section 3, T109N, R48W	248.5	Yes	No
5	7	Brookings	SE¼, Section 8, T109N, R48W	110.5	Yes	No
6	8A	Brookings	NE¼, Section 20, T109N, R48W	144.1	Yes	No
7	8B	Brookings	SE¼, Section 20, T109N, R48W	140.9	Yes	No
8	9	Brookings	S½, Section 34, T110N, R48W	172.3	Yes	Yes
10	12	Brookings	NE¼, Section 13, T109N, R48W	124.1	Yes	No
11	13	Brookings	NW¼, Section 17, T109N, R47W	126.3	Yes	Yes
12	15	Brookings	N½, Section 1, T109N, R48W	157.8	Yes	Yes
13	18	Brookings	N½, Section 18, T109N, R47W	178.9	Yes	Yes
14	19	Brookings	SW¼, Section 14, T109N, R48W	139.2	Yes	No
15	20	Brookings	W½, Section 22, T109N, R48W	216.8	Yes	No
16	23	Brookings	E½ of E½ of NW ¼, Section 21, T109N, R48W	19.3	Yes	No
<b>Total Available Nitrogen Acres</b>				<b>1,957.2</b>		

Please note in your NMP the estimated time it will take to build your listed fields up to 50 ppm (Olsen test) or 75 ppm (Bray-1 test) of phosphorus. You may need additional land in order to apply to your fields based on phosphorus removal at that time.

Included in your submittal was information on a field located in the Northwest ¼ of Section 20, Township 109 North, Range 47 West (CPA-63 Line # 4). This field was not included in the public notice for your proposed facility and cannot be approved in your NMP until a background phosphorus soil test is submitted and permit coverage is issued.

Also included in the submittal was information for a field located in the Southeast ¼ of Section 17, Township 109 North, Range 48 West (CPA-63 Line # 9). This field was included in the public notice but cannot be approved in your NMP because it is currently in another facility's NMP. **You may not apply manure to any fields which are not approved in your NMP.**

**C. Phosphorus-Based Manure Application**

As indicated in your nutrient management plan, none of the listed fields currently require manure application based on crop removal of phosphorus. If future soil tests identify fields with elevated phosphorus levels, the manure application rate must be based on phosphorus removal in the harvested portion of the crop. However, manure application to these fields can be based on multi-year phosphorus crop removal but cannot exceed the one year nitrogen crop need, and no more manure may be applied to that field again until

## REQUIREMENTS CONTINUED

the applied phosphorus has been removed from the field via harvest and crop removal. Please refer to the table on page 29 of the general permit for the proper manure application determination.

### D. Manure Application to Tiled Fields

Several of the NMP fields may contain tile lines. The general permit requires all above ground tile line intakes be shown on the aerial photo field maps and the associated setbacks identified. The submitted maps do not identify any above ground tile line intakes meeting these criteria. **Please identify the locations of any above ground tile line intakes meeting this requirement on the proper field maps and submit those maps to the department to ensure the required setbacks are followed. If no above ground intakes are present in these fields, please submit written notification to the department verifying the absence of above ground tile line intakes.**

### E. Wells and Setbacks

No wells were identified on the maps showing the manure application areas. **Please identify the locations of any wells in those areas on the proper field maps and submit those maps to the department. If no wells are present in those areas, please submit written notification to the department verifying the absence of wells in those areas.** The facility containment system and manure application sites must be located at least 150 feet from a private well owned by you, 250 feet from a private well not owned by you, and 1,000 feet from any public supply well or other public drinking water source. These setback distances from identified wells cannot be included as part of the land application acreage.

### 4. Field Addition Requirements

To add fields to your approved NMP, you must submit the required information for each additional field to the department for our review and approval. Required documentation includes the calculation of a RUSLE value for each field to be added. Information on adding fields to your approved NMP may be obtained from your local Natural Resources Conservation Service (NRCS) office. You may also contact us for assistance at (605) 773-3351, or visit our website at <http://denr.sd.gov/des/fp/FieldAdditions.aspx> for instructions on adding fields to your NMP. **You cannot apply manure to any fields not included in your approved NMP.**

## REQUIREMENTS CONTINUED

### 5. Other Permits That May or Will Be Required

Storm Water Permit - The construction of your project disturbs more than one acre in total land area and a general storm water construction permit has been obtained for your proposed construction (**SDR10H518**). As part of the requirement for obtaining coverage under this permit you must develop and implement a pollution prevention plan. Information concerning this permit and the pollution prevention plan can be obtained by calling William Marcouiller at 1-800-737-8676. **A copy of this plan must be kept on site during construction for review by DENR inspectors.**

Water Right Permit - Your permit application states the water supply for the facility will come from a rural water connection. Should you decide to drill a well as a supplemental water source, depending on your water usage, you may need to obtain a water rights permit. You must submit information regarding the source(s) of all water to be used in the operation of your manure management system. You must include the average and maximum daily volumes of water to be used from each source. The water volumes must include all water usage such as water for consumption, washing, misters, milk cooling, overflow watering systems, cooling, dust control, etc. Information concerning this permit can be obtained by calling Eric Gronlund at (605) 773-3352. **Please contact Eric so he can assist you in determining if you need to obtain a water rights permit.**

Permit to Occupy Right of Way - If manure application will involve placing hoses or other equipment in a state highway right of way (for example, in a road ditch or through a culvert), you must first obtain a Permit to Occupy Right of Way. Application for this permit may be made through the local South Dakota Department of Transportation area office. Contact your local SD DOT area office for more information on this permit. In addition, please contact your county highway superintendent to determine if your county has similar requirements.

Emission Reporting - Depending on the estimated quantity of emissions of hazardous substance from your facility, you may be required to submit a continuous release report to the State Emergency Response Commission and Local Emergency Planning Commission. Information regarding emission reporting and how to determine if you need to submit a report can be found on the department's website at [http://denr.sd.gov/des/gw/SARATitleIII/Emissions\\_from\\_Animal\\_Waste.aspx](http://denr.sd.gov/des/gw/SARATitleIII/Emissions_from_Animal_Waste.aspx) or by contacting Trish Kindt with the department at 1-800-433-2288.

Emergency Power Generator - The department has observed that emergency power generators have been installed at similar sized operations. If an emergency power generator has or will be installed at your operation it may require that you obtain an air

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## REQUIREMENTS CONTINUED

quality permit. Please contact Earl Berg with the department's Air Quality Program at (605) 773-4051, to determine whether an air quality permit is required. If an

### **6. New Federal Rules and Future State CAFO Program Changes**

The current general permit expired October 19, 2008, and is currently administratively extended. Until program changes can be made and a new general permit is issued, the current permit will remain in effect.

The department has prepared a draft general permit for concentrated animal feeding operations which was public noticed on October 8, 2015. A contested case hearing for the new draft permit is tentatively scheduled for September 27-29, 2016. If construction under this approval does not begin until after a new permit is in effect, an evaluation will need to be made to determine if your approval is still valid and in compliance with any future changes made to the program.

Once a new permit is issued, our goal will be to make transferring coverage under the existing permit to the new permit as easy as possible for you. The department will work with you on a schedule to submit any elements of your permit application that may need to be changed.