



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

July 23, 2020

Richard & Debra Ford
Richard & Debra Ford Swine Operation
46272 200th Street
Bruce, SD 57220

RE: Richard & Debra Ford Swine Operation Manure Management System
State General Permit Application Review

Dear Mr. & Mrs. Ford:

The Department of Environment and Natural Resources received three copies of your application for state permit coverage of your existing permitted finisher swine operation under the 2017 *General Water Pollution Control Permit for Concentrated Animal Feeding Operations* (general permit), **permit application number SDG-100183**. The existing manure management system is currently permitted under the 2003 general permit and is located in the Northeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 21, Township 112 North, Range 51 West in Brookings County, South Dakota. There are no changes to the existing manure management system proposed with the 2017 permit application.

On May 7, 2003, the department approved the original plans and specifications for your manure management system for a maximum of 4,000-head of finisher swine to be constructed in two phases. Phase #1 was constructed and permitted. Phase #2 was not constructed.

The permitted Phase 1 portion of your manure management system is for a housed lot feeding a maximum of 2,000-head of finisher swine weighing 55 pounds or more and consists of two deep pit barns with no acres of drainage area. The deep pit barns meet the requirements of the general permit and are designed for at least 270 days of liquid storage capacity.

On May 16, 2016, the department approved plans and specifications for the replacement of the Phase 2 portion of your previously approved manure management system with a single deep pit barn which would house a maximum of 2,400-head of finisher swine weighing 55 pounds or more with no acres of drainage area. The proposed deep pit barn meets the requirements of the general permit and is designed for at least 270 days of liquid storage capacity. With the proposed expansion, your operation will consist of three deep pit barns housing a maximum of 4,400-head of finisher swine once the Phase 2 finisher barn is completed and permitted.

State Permit Application

Your permit application includes a new Certification of Applicant Form, a new Notice of Intent Form, a new Operation and Maintenance guideline, and an updated nutrient management plan (NMP).

We have reviewed and hereby conditionally approve your 2017 permit application. We are also extending the approval of your Phase 2 finisher barn which has not yet been constructed. The Phase 2 finisher barn is the only remaining item from your approved manure management system that has not been constructed. **You will have three years to complete construction of this barn and submit as-built plans with a Notice of Completion. If construction is not completed within the three year timeframe this extended approval will expire.** Requirements you must implement are listed on the attached pages.

Upon completion of construction of the Phase 2 finisher barn, the enclosed Notice of Completion must be returned to the department. **You cannot populate the Phase 2 finisher barn or use the deep pit beneath this barn until an amended Certificate of Compliance and coverage under the 2017 state general permit are issued to include this barn. Once the Notice of Completion has been received and a satisfactory construction inspection has been conducted, the department will issue an amended Certificate of Compliance and coverage under the 2017 state general permit for this barn.**

One copy of the submitted permit application is being retained for our files. If you plan to increase your maximum number of animals or make any modifications to your manure management system, you must obtain department approval prior to increasing your animal numbers or beginning any new construction. If you plan to make any modifications to your nutrient management plan that include a change in manure application method, the addition of land application fields, or a change in crop rotation, you must obtain department approval prior to making the change.

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 covers works of sanitary significance and does not cover items such as quality of material, structural soundness, or electrical and mechanical design features. Approval of the plans and specifications does not in any way release the applicant from the responsibility 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 Paul Wegleitner, Feedlot Permit Program at (605) 773-3351. Thank you for your cooperation.

Sincerely,



Kent R. Woodmansey, PE, Engineering Manager
Feedlot Permit Program
Phone: (605) 773-3351

cc: Brad Woerner, PE, Stockwell Engineers, Inc, Yankton, SD
Luke Muller, F.D.A.L.G., Watertown, SD
Brookings County Commissioners

REQUIREMENTS

The following requirements must be implemented. Failure to implement these requirements will invalidate this approval.

State General Permit

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

1. Environmental Training

Debra attended the environmental training session on December 1, 2019, and a copy of her training certificate was included with your permit application

2. 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 groundwater monitoring were not 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. For additional information concerning ground water monitoring, please contact Troy Roth, at (605) 773-3351.

3. Notice of Intent Form (NOI)

Your submitted Notice of Intent (NOI) form identifies a maximum of 4,400-head of swine weighing 55 pounds or more. The maximum number of swine to be housed at your operation includes the finisher swine to be housed in your proposed Phase 2 finisher barn that has not yet been constructed. **If for any reason you are unable to complete construction of the Phase 2 finisher barn by July 23, 2023, you will need to submit an updated NOI that identifies 2,000-head of swine and your nutrient management plan will need to be updated to be consistent with your NOI.**

4. Composting of Animal Mortalities

Section 1.4.3.3.y on page 23 of the general permit indicates animal mortalities shall be handled to prevent the discharge of manure and process wastewater to surface waters of the state. Proper disposal of animal mortalities, including composting, is regulated by the South Dakota Animal Industry Board. The Animal Industry Board's animal mortality disposal protocols and regulations must be followed for the disposal of animal mortalities from your facility. For information on their requirements, please contact the Animal Industry Board at (605) 773-3321. If you plan to compost animal mortalities at your operation using manure or process wastewater in the composting process, approval of plans and specifications and coverage under the general permit for the composting structure are required.

5. Notification

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.

REQUIREMENTS CONTINUED

6. Initial Nutrient Management Plan (NMP)

Your submitted NMP indicates that manure and wastewater will be applied in the spring, summer, and fall, and that the methods of manure application will include injection and sprinkling with and without incorporation. If solid manure or process wastewater is applied to fields other than cropped fields, grass, alfalfa, pasture land, or no-till cropland, liquid manure and process wastewater must be incorporated within 24 hours and solid or semi-solid manure must be incorporated within 5 days. Additional requirements pertaining to your NMP are listed on the following pages.

A. Endangered Species Action Plan

An Endangered Species Action Plan was included with your NMP and the plan includes best management practices to follow when manure or process wastewater are land applied to fields that are within ¼ mile of a stream where Topeka shiners have been observed or have potentially occupied according to the U.S. Fish and Wildlife Service. Based on your submitted NMP, a portion of the field listed on line 3 which is identified as “*The 40*” is within ¼ mile of a stream where Topeka shiners have been observed or have potentially occupied. You need to review your Endangered Species Action Plan prior to land applying to this field.

B. Annual Soil Testing

Annual soil samples from 0 to 2 feet are required on all manure land application fields prior to manure application. The fields identified as being located over a shallow aquifer are shaded in Table 1 and have additional soil testing requirements. For these fields, soil tests are required from 0 to 2 feet and 2 to 4 feet prior to manure application.

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 1.4.4.3., beginning on page 35, of the 2017 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 under the 2017 general permit instead of the 2 to 4-foot soil sampling requirement.**

If you have not elected to conduct the alternative post-harvest soil sampling and the department determines you are not conducting the required 2 to 4-foot soil sampling prior to manure application, you will be required to conduct the alternative post-harvest soil sampling on all fields requiring the additional 2 to 4-foot soil sampling and no longer have the option of taking the additional 2 to 4-foot soil samples prior to land application.

C. Approved Land Application Fields

The fields listed in Table 1 below are approved under the 2017 general permit for the land application of manure or process wastewater. **Before manure or wastewater can be applied to these fields, you must obtain a current soil test and use the table on page 34 of the 2017 general permit to determine whether the field fits into a nitrogen need,**

REQUIREMENTS CONTINUED

one-year phosphorus crop removal, five-year phosphorus crop removal, or no application category based on the current phosphorus level of the field and the predicted annual erosion. Please refer to the table on page 34 and the annual nutrient management requirements beginning on page 35 of the 2017 general permit prior to the land application of manure to determine the proper procedure for calculating the appropriate application rate for each specific field.

Table 1: Richard & Debra Ford Swine Operation – Approved Land Application Fields

CPA-63 Line #	Field ID	County	Legal Description	Available Acres	Soil Sampling Requirements	
					0-2 feet	Additional
1	The 80	Brookings	W ½, SW ¼, Section 20, T112N, R51W	53.1	Yes	No
2	Pivot	Brookings	SE ¼, Section 35, T112N, R51W	148.4	Yes	Yes
3	The 40	Brookings	SW ¼, SW ¼, Section 36, T112N, R51W	38.3	Yes	Yes
4	Flittes	Brookings	NE ¼, Section 22, T112N, R51W	151.6	Yes	No
5	Fosters	Brookings	NE ¼, Section 14, T112N, R51W	138.5	Yes	No
6	Hibbs	Brookings	SE ¼, Sec. 8 & SW ¼, Sec. 9, T112N, R52W	235.6	Yes	No
8	Chad Pivot	Brookings	NW ¼, Section 2, T111N, R51W	126.3	Yes	Yes
9	Home	Brookings	SE ¼, Section 21, T112N, R51W	95.7	Yes	No
10	Home North	Brookings	N ½, SE ¼, Section 14, T112N, R52W	61.7	Yes	No
Total Available Acres				1,049.2		

Please note in your initial 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.

D. Land Application to Saturated, Snow-Covered, or Frozen Soil

Your submitted NMP did not include a winter application field. Item A.2.c. of your O&M guideline indicates that you do not plan for application to saturated, snow-covered, or frozen ground and accept that doing so will be a violation of the general permit even in the event of an emergency.

Incorporation to non-vegetated crop ground is required for winter application. If incorporation is not possible, winter application may only be to cropped fields, grass, alfalfa, pasture land, or no-till cropland. The general permit requires manure or process wastewater applied to non-vegetated cropland to be incorporated; liquid manure and process wastewater must be incorporated within 24 hours and solid or semi-solid manure must be incorporated within 5 days.

If you propose to add winter application fields to your NMP or change your crop rotation to allow for winter application in the future, please review items H and J below for additional information before applying to those fields.

E. Modification to Crop Rotation

Your initial NMP identifies a specific crop rotation for each field and includes a list of alternative crops that may be substituted into the rotation. If for any reason an alternative crop that is not included in the list of alternative crops is planned to be grown, that change

REQUIREMENTS CONTINUED

would be considered a major modification and would require a revised alternative crop list to be submitted to the department for review and approval.

F. Certified Soil and Manure Testing Laboratories

As part of your annual nutrient management planning requirements, soil and manure tests must be analyzed by certified soil testing and manure testing labs. The laboratory analyzing the soil samples must be accredited by the **North American Proficiency Testing Programs' Proficiency Assessment Program** and the labs that are currently accredited are listed on the following website: <http://www.naptprogram.org/pap>. The laboratory analyzing the manure or process wastewater must be certified by the **Manure Testing Laboratory Certification Program** and the manure testing labs that are currently certified are listed on the following website: <http://www2.mda.state.mn.us/webapp/lis/manurelabs.jsp>.

If you or your crop consultant sends your soil or manure samples to a lab that is not listed on either of these websites, you and/or crop consultant may want to tell them that you need to use a certified lab so they can become certified.

G. 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. 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.**

H. Mobile Land Application Systems

If a mobile land application system using temporary piping will be used for the land application of liquid manure or process wastewater, the equipment must be equipped with an on-board radio controller and flow meter that can be overseen by the applicator. See Section 1.4.4.1.m. on page 30 of the 2017 general permit for more information on this requirement.

7. Setback Distance and Water Wells

The manure management system and the application sites must be located at least 100 feet from a private well owned by you if the top of the aquifer is 100 feet or more below the land surface, 150 feet from a private well owned by you if the top of the aquifer is less than 100 feet below the land surface, 250 feet from a private well not owned by you and 1,000 feet from any public supply well. These areas cannot be included in the land application areas.

8. Other Permit(s) That Will or May Be Required

Storm Water Permit - If the construction associated with your Phase 2 finisher barn will disturb more than one acre in total land area, **you must obtain a general storm water construction permit prior to beginning construction.** This permit must be obtained before you can start

REQUIREMENTS CONTINUED

constructing your proposed manure management system. Information concerning this permit can be obtained by calling the Surface Water Quality Program at 1-800-737-8676. **A copy of this plan must be kept on-site during construction for review by DENR inspectors.**

Emergency Power Generator - The department has observed that emergency power generators have been installed at similar sized operations. If an emergency power generator will be installed at your operation it may require that you obtain an air quality permit. Please contact Kristen Hendricks with the department's Air Quality Program at (605) 773-3151, to determine whether an air quality permit is required. If an air quality permit is required, you must have that permit prior to using the generator.

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.

