DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

April 12, 2016

Brad Smallfield
Smallfield Farms
21661 483rd Avenue
Elkton, SD 57026

Re: Revised Phosphorus-Based Nutrient Management Plan (NMP)

Dear Mr. Smallfield:

The Department of Environment and Natural Resources (DENR) received your request to add the fields listed in the following table to your approved phosphorus-based nutrient management plan (NMP). Your existing phosphorus-based NMP is part of your application for coverage under the *General Water Pollution Control Permit for Concentrated Animal Feeding Operations* (general permit). Your animal feeding operation was originally approved on July 30, 1998, and permitted on March 26, 1999, **(general permit #SDG-0100009)**. The permit was transferred to you on January 13, 2015.

Fields Being Added to NMP					
Field #	**County**	**Legal Description**	**Available Acres**	**Soil Sampling Requirements**	
				0-2 feet	**Additional**
15	Brookings	SW ¼, Sec. 17, T109N, R47W	67.8	Yes	Yes
16	Brookings	SE ¼, Sec. 13, T109N, R48W	124.1	Yes	No
17	Brookings	NW ¼, Sec. 29, T109N, R47W	130.1	Yes	Yes

We are approving the modification and are including *Fields 15, 16, and 17* in your approved phosphorus-based NMP. **Please put one copy of the approved field information in Appendix D of your copy of the permit.** You are required to comply with the terms and conditions of your permit.

You are also responsible for contacting the local planning and zoning office in the county where manure application will take place to determine if there are any local ordinances or requirements with which you need to comply.

All of the new fields will require soil tests from zero to two feet prior to manure application.

Fields 15 and 17 are also identified as being located over a shallow aquifer 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. Please refer to Section 1.4.4.4., beginning on page 29 of the general permit for the annual nutrient management requirements.

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 of manure or the alternative option to conduct the initial 0 to 2-foot soil test prior to manure application and a second 0 to 2-foot

soil test within four weeks after 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 post-harvest soil sampling option.**

The 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. Buffer zones are also required around any natural or manmade drainages or wetlands. Please review the buffer zone requirements on the land application maps included with the nutrient management plan in Appendix D of your permit prior to land applying manure.

To add fields to your approved phosphorus-based 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 phosphorus-based 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. **You may not apply manure to any fields not included in your approved phosphorus-based NMP.**

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.

Two copies of the field information are being retained for our files. The enclosed tables are an updated listing of the fields that are currently approved for manure or wastewater application. The enclosed map shows the location of each field. Please review this information and notify the department if any of the information is incorrect. If the enclosed table and map are correct, please place them in your NMP.

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

Sincerely,

Paul N. Wegleitner
Natural Resources Project Engineer
Feedlot Permit Program

cc: Kevin Banken, Centrol Crop Consulting, 333 Marian Ave., Brookings, SD 57006
Brookings County Commissioners

Enclosures: Field List & Field Map

Smallfield Farms Approved Field List

April 12, 2016

All fields require a zero to two foot soil test prior to manure application. The fields identified as being located over a shallow aquifer are shaded in the following table and have additional soil testing requirements. For these fields, soil tests are required from zero to two feet **and** two to four feet prior to manure application. Please refer to section 1.4.4.4., beginning on page 29 of the general permit for the annual nutrient management requirements.

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 of manure or the alternative option to conduct the initial 0 to 2-foot soil test prior to manure application and a second 0 to 2-foot soil test within four weeks after 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 post-harvest soil sampling option.**

Based on the initial field information submitted for the fields listed in Table 1, manure application may be based on nitrogen need as determined from the table on page 29 of the general permit. **However, before manure or wastewater can be applied to these fields, you must have a current soil test and use the table on page 29 of the permit to determine whether the field fits into a nitrogen need, phosphorus crop removal, or no application category based on the current phosphorus level of the field.**

Table 1 – Smallfield Farms Nitrogen-Based Nutrient Management Plan Fields

Field #	County	Legal Description	Acres		Soil Sampling	
			Total	Available	0-2'	Additional
1	Brookings	SE ¼, Section 32, T110N-R48W	104.8	97.8	Yes	Yes
2	Brookings	S ½, Section 1, T109N-R48W	231.1	231.1	Yes	Yes
3	Brookings	NE ¼, Section 11, T109N-R48W	136.1	126.1	Yes	Yes
4	Brookings	W ½, Section 12, T109N-R48W	224.1	220.1	Yes	Yes
5	Brookings	E ½, Section 12, T109N-R48W	267.0	264.0	Yes	Yes
6	Brookings	SW ¼, Section 7, T109N-R47W	136.0	136.0	Yes	Yes
7	Brookings	NE ¼, Section 7, T109N-R47W	119.1	111.1	Yes	Yes
8	Brookings	SE ¼, Section 14, T109N-R48W	144.5	142.5	Yes	No
9	Brookings	SW ¼, Section 13, T109N-R48W	77.2	77.2	Yes	No
10	Brookings	SW ¼, Section 13, T109N-R48W	78.0	78.0	Yes	No
11	Brookings	NW ¼, Section 24, T109N-R48W	149.8	146.8	Yes	No
12	Brookings	S ½, Section 18, T109N-R47W	246.9	236.9	Yes	No
13	Brookings	SE ¼, Section 24, T109N-R48W	150.1	141.1	Yes	No
14	Brookings	NE ¼, Section 30, T109N-R47W	140.8	135.8	Yes	No
15	Brookings	SW ¼, Section 17, T109N-R47W	67.8	67.8	Yes	Yes
16	Brookings	SE ¼, Section 13, T109N-R48W	124.1	124.1	Yes	No
17	Brookings	NW ¼, Section 29, T109N-R47W	135.1	130.1	Yes	Yes
		Total Acres:	2,532.5	**2,466.5**		

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

As indicated in your phosphorus-based NMP, 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. Manure application to these fields can be based on multi-year phosphorus crop removal, however application can not exceed the one year nitrogen crop need and no more manure may be applied to that field again until 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.