DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 29, 2016

Wim Hammink
Hammink Dairy
19890 470th Avenue
Bruce, SD 57220-5208

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

Dear Mr. Hammink:

The Department of Environment and Natural Resources (DENR) received your request to add the fields listed in Table 1 to your approved phosphorus-based nutrient management plan (NMP) and modify the existing fields listed in Table 2 to reflect current field conditions. 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 8, 1996, and permitted on July 18, 2002, **(general permit # SDG-0100065)**.

Table 1 - Fields Being Added to NMP

Field #	County	Legal Description	Available Acres	Soil Sampling Requirements	
				0-2 feet	Additional
32	Brookings	E ½, Sec. 21, T112N, R50W	260.0	Yes	No
35	Brookings	SE ¼, Sec. 11, T112N, R50W	95.0	Yes	No
36	Brookings	SE ¼, Sec. 14, T112N, R50W	147.0	Yes	No
38	Brookings	NW ¼, Sec. 30, T112N, R49W	141.0	Yes	Yes
40	Brookings	NE ¼, Sec. 27, T112N, R50W	115.8	Yes	No
41	Brookings	SE ¼, Sec. 27, T112N, R50W	90.0	Yes	No

Table 2 - Fields Being Modified in Approved NMP

Field #	County	Legal Description	Available Acres	Soil Sampling Requirements	
				0-2 feet	Additional
4	Brookings	W ½, Sec. 10, T112N, R50W	131.0	Yes	No
12	Brookings	SE ¼, Sec. 15, T112N, R50W	112.2	Yes	No
16	Brookings	SE ¼, Sec. 22, T112N, R50W	91.0	Yes	No
22	Brookings	W ½ of the NE ¼, Sec. 24, T112N, R50W	166.0	Yes	Yes
24	Brookings	NE ¼, Sec. 26, T112N, R50W	73.8	Yes	No
25	Brookings	NW ¼ of NW ¼, Sec. 27, T112N, R50W	115.7	Yes	No

We are approving the modifications and are including *Fields 24, 32, 35, 36, 38, 40, and 41* in your approved phosphorus-based NMP and are modifying the acres of *Fields 4, 12, 16, 22, and 25.* **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 22 and 38 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 Sec. 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 Sec. 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 land 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.

Upon review of your manure application agreements, it was determined that several of the manure applications agreements for fields in your approved nutrient management plan had expired. *Fields 7, 10, 14, 15, 18, 19, and 26* will require updated manure application agreements prior to the land application of manure or wastewater. **These fields are not listed in your approved NMP and cannot be used for the land application of manure until updated manure application agreements are submitted to the department for review and approval.**

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 attached field list is an updated listing of the fields that are currently approved for manure or wastewater application. The attached 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 field list 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 Peter Adair, Feedlot Permit Program at (605) 773-3351. Thank you for your cooperation.

Sincerely,

Paul N. Wegleitner
Natural Resources Project Engineer
Feedlot Permit Program

cc: Brookings County Commissioners
Kevin Banken, Centrol Crop Consulting

Enclosures: Field List
Field Map

Hammink Dairy Approved Field List

3/29/16

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 – Hammink Dairy Nitrogen-Based Nutrient Management Plan Fields

Line #	Field or Tract #	County	Legal Description	Acres		Soil Sampling	
				Total	Available	0-2'	Additional
1	1	Brookings	NW ¼, Section 2, T112N, R50W	140.0	104.0	Yes	No
2	2	Brookings	W ½ of SE ¼, Section 3, T112N, R50W	77.7	73.7	Yes	No
3	3	Brookings	NE ¼, Section 3, T112N, R50W	155.6	148.1	Yes	No
4	4	Brookings	W ½, Section 10, T112N, R50W	146.0	131.0	Yes	No
5	5	Brookings	NE ¼, Section 11, T112N, R50W	141.4	120.8	Yes	No
6	6	Brookings	W ½, Section 11, T112N, R50W	115.6	106.9	Yes	No
8	8	Brookings	NW ¼, Section 14, T112N, R50W	125.1	121.3	Yes	No
9	9	Brookings	NE ¼, Section 14, T112N, R50W	127.4	109.9	Yes	No
11	11	Brookings	NE ¼, Section 15, T112N, R50W	144.0	139.5	Yes	No
12	12	Brookings	SE ¼, Section 15, T112N, R50W	125.0	112.2	Yes	No
13	13	Brookings	S ½ of the NW ¼, Section 15, T112N, R50W	36.4	36.4	Yes	No
16	16	Brookings	SE ¼, Section 22, T112N, R50W	106.1	91.0	Yes	No
17	17	Brookings	NE ¼, Section 22, T112N, R50W	143.9	122.3	Yes	No
20	20	Brookings	NW ¼, Section 23, T112N, R50W	114.1	102.1	Yes	No
21	21	Brookings	SW ¼, Section 23, T112N, R50W	152.4	109.7	Yes	No
22	22	Brookings	W ½ of the NE ¼, Section 24, T112N, R50W	177.0	166.0	Yes	Yes
23	23	Brookings	NW ¼, Section 26, T112N, R50W	136.7	114.3	Yes	Yes
24	24	Brookings	NE ¼, Section 26, T112N, R50W	85.0	73.8	Yes	No

Table 1 – Hammink Dairy Nitrogen-Based Nutrient Management Plan Fields							
Line #	Field or Tract #	County	Legal Description	Acres		Soil Sampling	
				Total	Available	0-2'	Additional
25	25	Brookings	NW ¼ of NW ¼, Section 27, T112N, R50W	121.0	115.7	Yes	No
28	28	Brookings	N ½ of the NW ¼, Section 15, T112N, R50W	35.0	30.0	Yes	No
29	29	Brookings	SW ¼, Section 26, T112N, R50W	121.7	121.7	Yes	No
30	30	Brookings	NW ¼, Section 35, T112N, R50W	118.9	112.9	Yes	Yes
31	31	Brookings	NE ¼, Section 35, T112N, R50W	120.4	118.4	Yes	Yes
32	32	Brookings	E ½, Section 21, T112N, R50W	275.0	260.0	Yes	No
33	33	Brookings	SW ¼, Section 27, T112N, R50W	140.0	135.0	Yes	No
34	34	Brookings	SE ¼, Section 28, T112N, R50W	123.0	115.0	Yes	No
35	35	Brookings	SE ¼, Section 11, T112N, R50W	98.0	95.0	Yes	No
36	36	Brookings	SE ¼, Section 14, T112N, R50W	150.0	147.0	Yes	No
37	37	Brookings	NW ¼, Section 21, T112N, R50W	88.0	85.0	Yes	No
38	38	Brookings	NW ¼, Section 30, T112N, R49W	151.0	141.0	Yes	Yes
39	39	Brookings	NE ¼, Section 10, T112N, R50W	159.3	151.3	Yes	No
40	40	Brookings	NE ¼, Section 27, T112N, R50W	117.8	115.8	Yes	No
41	41	Brookings	SE ¼, Section 27, T112N, R50W	100.0	90.0	Yes	No
			Total Acres:	**4,168.5**	**3,816.8**		

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.