



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

March 18, 2016

Frido Verpaalen
Volga Dairy
46318 214th Street
Volga, SD 57071-6346

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

Dear Mr. Verpaalen:

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 September 10, 2001, and permitted on April 4, 2002, (**general permit # SDG-0100006**).

Fields Being Added to NMP					
Field #	County	Legal Description	Available Acres	Soil Sampling Requirements	
				0-2 feet	Additional
39	Brookings	E ½, Sec. 9, T109N, R51W	181.0	Yes	No
40	Brookings	NE ¼, Sec. 15, T109N, R51W	96.0	Yes	Yes

We are approving the modification and are including *Fields 39 and 40* 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.

Field 40 is identified as being located over a shallow aquifer and has additional soil testing requirements. 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 of manure or the alternative

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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 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.

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 table is an updated listing of the fields that are currently approved for manure or wastewater application. The enclosed map shows the locations of the fields. 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.

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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: Luke Muller, F.D.A.L.G., Watertown, SD
Brookings County Commissioners
Kevin Banken, Control, Brookings, SD

Enclosures: Field List
Field Map

Volga Dairy Approved Field List

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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 tables 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.

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 – Volga 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	N ½, Section 3, T109N, R51W	295.0	292.0	Yes	Yes
2	2	Brookings	SW ¼, Section 34, T110N, R51W	133.0	101.0	Yes	Yes
3	3	Brookings	SE ¼, Section 28, T110N, R51W	150.0	126.0	Yes	Yes
4	4	Brookings	N ½ of the NE ¼, Section 33, T110N, R51W	78.0	78.0	Yes	Yes
5	5	Brookings	SE ¼, Section 12, T109N, R51W	125.0	100.0	Yes	Yes
6	6	Brookings	SE ¼, Section 3, T109N, R51W	120.0	120.0	Yes	Yes
7	7	Brookings	N 2/3 of the SE ¼, Section 33, T110N, R51W	92.0	87.0	Yes	Yes
8	8	Brookings	SW ¼, Section 33, T110N, R51W	120.0	120.0	Yes	Yes
10	10	Brookings	N ½ of the SE ¼, Section 5, T109N, R51W	67.0	65.0	Yes	Yes
12	12	Brookings	NW ¼ of the SW ¼, Section 4, T109N, R51W	38.0	35.0	Yes	Yes
13	13	Brookings	S ½ of the NE ¼, Section 33, T110N, R51W	76.0	76.0	Yes	Yes
14	14	Brookings	S 1/3 of the SE ¼, Section 33, T110N, R51W	34.0	34.0	Yes	Yes
17	17	Brookings	NE ¼, Section 27, T109N, R51W	156.0	104.0	Yes	No
18	18	Brookings	SW ¼, Section 26, T110N, R51W	132.0	120.0	Yes	Yes
19	19	Brookings	NW ¼, Section 34, T110N, R51W	17.0	17.0	Yes	No
20	20	Brookings	NW ¼, Section 34, T110N, R51W	50.0	50.0	Yes	No
21	21	Brookings	NW ¼, Section 34, T110N, R51W	29.0	29.0	Yes	No
22	22	Brookings	NW ¼, Section 34, T110N, R51W	43.0	43.0	Yes	No
23	23	Brookings	NE ¼, Section 4, T109N, R51W	139.0	139.0	Yes	No

Table 1 – Volga Dairy Nitrogen-Based Nutrient Management Plan Fields							
Line #	Field or Tract #	County	Legal Description	Acres		Soil Sampling	
				Total	Available	0-2'	Additional
24	24	Brookings	NE ¼, Section 27, T110N, R51W	112.0	112.0	Yes	Yes
25	25	Brookings	NW ¼ of the NE ¼ & NE ¼ of the NW ¼, Section 36, T110N, R51W	69.9	66.7	Yes	Yes
26	26	Brookings	NE ¼ of the SW ¼, Section 4, T109N, R51W	34.4	28.4	Yes	Yes
27	27	Brookings	NW ¼, Section 25, T110N, R51W	137.8	137.8	Yes	Yes
28	28	Brookings	SE ¼ & S ¼ of the NE ¼, Section 25, T110N, R51W	175.1	174.1	Yes	Yes
30	30	Brookings	SE ¼, Section 22, T110N, R51W	119.7	114.7	Yes	Yes
31	31	Brookings	NE ¼, Section 13, T109N, R52W	140.5	110.5	Yes	No
32	32	Brookings	SW ¼, Section 3, T109N, R51W	146.8	146.8	Yes	Yes
33	33	Brookings	S ½ of the SW ¼, Section 4, T109N, R51W	73.0	65.0	Yes	No
34	34	Brookings	NW ¼ and W ½ of the NE ¼, Section 10, T109N, R51W	215.0	203.0	Yes	Yes
35	35	Brookings	SE ¼, Section 3, T110N, R51W	139.0	124.0	Yes	No
36	36	Brookings	NW ¼, Section 11, T110N, R51W	142.0	142.0	Yes	Yes
37	37	Brookings	S ½, Section 10, T110N, R51W	262.0	257.0	Yes	Yes
38	38	Brookings	W ½, Section 13, T109N, R51W	257.0	242.0	Yes	Yes
39	39	Brookings	E ½, Section 9, T109N, R51W	196.0	181.0	Yes	No
40	40	Brookings	NE ¼, Section 15, T109N, R51W	100.0	96.0	Yes	Yes
Total Acres:				4,214.2	3,937.0		

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.