



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

August 8, 2016

Sako Vandermeer
Providence Dairy
19976 476th Avenue
White, SD 57276-5332

Re: Providence Dairy Manure Management System
Revised Plans and Specifications

Dear Mr. Vandermeer:

The Department of Environment and Natural Resources received three copies of the revisions to the proposed south freestall barn on July 5, 2016. The manure management system is located in the Southwest $\frac{1}{4}$ of Section 23, Township 112 North, Range 49 West in Brookings County, South Dakota.

Your approved manure management system is for a housed lot feeding a maximum of 2,400-head of dairy cattle consisting of 2,100-head of mature dairy cattle and 300 dairy calves with 850-head of mature dairy cattle and 300 dairy calves currently permitted. Your permitted Phase 1 system consists of a flume in two barns, a milk parlor, piping, diversion dikes or channels, a feed storage area, a concrete sand settling lane, a concrete sand stacking pad, a concrete sand storage bunker, a clay-lined sand/manure stacking pad, a manure pack calf barn, two settling ponds, one holding pond, and 0.66 acres of drainage area. The Phase 1 pond system is designed for at least 270 days of liquid storage capacity.

Phase 2 is for the remaining unpermitted 1,250-head of mature dairy cattle, an additional freestall barn, milk parlor, and holding pond. The holding pond is the only component of Phase 2 that has been constructed and permitted. With the completion of the Phase 2 holding pond, the combined pond system has at least 365 days of liquid storage capacity. The department has also approved modifications to holding pond 1 which have not yet been completed.

The proposed revisions to the approved south freestall barn consist of the following:

- A 12-foot deep concrete reception pit will be constructed in the middle of the freestall barn instead of a flume system; and
- A concrete pump pit will be constructed on the north side of the proposed concrete reception pit in the barn. A 12-inch PVC pipe will be installed between the proposed pump pit and the south side of the existing flume system in the permitted freestall barns.

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We have reviewed and hereby conditionally approve the revised plans and specifications for your project. This approval expires on August 8, 2018, unless construction of the revision to your manure management system has been started by that date. Requirements you must implement are listed on the attached pages. Failure to implement the requirements on the following pages 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 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. **The proposed reception pit cannot be used to store manure and the proposed barn cannot be populated until the department issues an amended 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 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 Ben Myers, 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: Brian Friedrichsen, PE, DE, Huron, SD
Brookings County Commissioners
Luke Muller, F.D.A.L.G., Watertown, SD

REQUIREMENTS

The following requirements must be implemented before we will issue an amended 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. Pump Pit Vent

The plans indicate the height of the proposed freestall barn pump pit vent pipe will be 12-inches. The vent height must be at least 24-inches. Please have your engineer update the plans and resubmit them to the department with the as-built plans.

2. Pump Pit

The revised plans and specifications do not indicate if the pump that will be installed in the proposed pump pit will use an automatic system or will be manually operated. If the pump will be manually operated, your operation and maintenance guidelines must be revised to include the operation of the pump pit. The revised operation and maintenance guideline must be signed and submitted to the department with the Notice of Completion form.

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. 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 proposed barn. If any of the dates change from the ones submitted on the postcard, please notify us at (605) 773-3351 and ask for Ben Myers.

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 proposed barn is complete. The department cannot issue you a Certificate of Compliance and coverage under the general permit until we receive a Notice of Completion. **The proposed reception pit cannot be used to store manure and the proposed barn cannot be populated until the department issues an amended Certificate of Compliance and permit coverage.**

2. Field Addition Requirements

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. Required documentation includes the calculation of a RUSLE value for each field to be added. Information on adding fields to your approved phosphorus-based NMP may be obtained from your local 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.**

3. Other Permits That May or Will Be Required

Storm Water Permit - A general storm water construction permit will be required if your project construction will disturb more than one acre in total land area. Information concerning this permit can be obtained by calling Laura Newman at 1-800-737-8676. **A copy of this plan must be kept on site during construction for review by DENR inspectors.**

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 is available by contacting Trish Kindt with DENR, at 1-800-433-2288, or on our website at http://denr.sd.gov/des/gw/SARATitleIII/Emissions_from_Animal_Waste.aspx.

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 Earl Berg 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.

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REQUIREMENTS CONTINUED

Greenhouse Gas Reporting - Manure management systems emitting at least 25,000 metric tons of CO₂ equivalent per year may be required to report to the federal Environmental Protection Agency. For more information contact Chris Dresser, with EPA, Region 8, at (303) 312-6385.