



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

January 5, 2021

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

Re: Hammink Dairy, LLC Manure Management System
As-Built Plans and Specifications Review

Dear Mr. Hammink:

The Department of Environment and Natural Resources received three copies of the as-built plans and specifications for the calf barn at the North Unit and the permeability test results for the completed clay liner beneath the calf barn on December 14, 2020. The department also received as-built plans required during the department's October 29, 2020, operation and maintenance inspection of the dairy on December 21, 2020, and December 28, 2020. Your operation consists of a North Unit and a South Unit and is permitted under the 2017 *General Water Pollution Control Permit for Concentrated Animal Feeding Operations* (general permit) for a maximum of 3,950-head of mature dairy cattle and 350 dairy calves with a total of 3.08 acres of drainage area at the two dairy units. The North Unit system is located in the Southeast $\frac{1}{4}$ of Section 15, Township 112 North, Range 50 West and the South Unit system is located in the Southwest $\frac{1}{4}$ of Section 22, Township 112 North, Range 50 West in Brookings County, South Dakota.

North Unit

Your permitted North Unit manure management system is for a housed lot feeding a maximum of 950-head of mature dairy cattle and 350 dairy calves. Your system consists of five freestall barns, a calf hut area, a milk parlor, a manure solids separator, a concrete manure solids stacking pad, a commodity barn, two bunker silos, diversion dikes or channels, two holding ponds, piping, two lift stations, and 2.3 acres of drainage area. Each barn contains a concrete flush gutter for transferring the manure and wastewater from the barns to the manure solids separator. The holding pond system is designed for at least 270 days of liquid storage capacity.

South Unit

Your permitted South Unit manure management system is for a housed lot feeding a maximum of 3,000-head of mature dairy cattle. Your system consists of a flume system in two freestall barns, a milk parlor/holding area, piping, diversion dikes or channels, a feed storage area, two concrete

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manure pits, a solids separator, a clay-lined solids stacking pad, three holding ponds, and 0.78 acres of drainage area. The holding pond system is designed for at least 270 days of liquid storage capacity.

The department approved plans for a proposed calf barn and a change in the animal numbers at the North Unit dairy on March 19, 2020. The number of mature dairy cattle at the North Unit dairy will be decreased by 72 head and the number of calves will be increased by 250 head. The new maximum animal population at the North Unit dairy will be 878-head of mature dairy cattle and 600-head of calves for a new facility total of 3,878-head of mature dairy cattle and 600 dairy calves.

The as-built changes consist of the following:

- The pipe from the new calf barn to the holding pond was not installed and the drywell pump pit was not constructed. Instead, a pipe was installed from the calf barn pit into the adjacent existing freestall barn where it will drain to the existing manure management system;
- The widths of the calf barn alleys were changed;
- The calf barn concrete reception pit dimensions were decreased from 8 feet by 42 feet to 7 feet, 6 inches by 12 feet and the pit depth was decreased from 8 feet to 5 feet, 4 inches;
- A covered hay shed was constructed north of the existing feed storage pad at the North Unit dairy;
- Concrete surfacing was placed on the south portion of the solids stacking pad at the South Unit dairy;
- A second solids separator was installed next to the existing separator at the South Unit dairy and an additional covered solids storage bay was constructed on the north side of the separator building;
- An updated SPAW model was submitted;
- Your engineer verified a permanent marker is present in holding pond 3 of the South Unit; and
- With these changes, the manure management system at both sites will still have at least 270 days of liquid storage capacity.

We have reviewed and hereby conditionally approve the as-built changes and accept the permeability test results as meeting the requirements of the 2017 general permit. Two copies of the as-built changes and permeability test results are being kept for our files. Please replace the appropriate pages in your plans and specifications booklet with the revised pages enclosed with this letter and add any additional pages enclosed with this letter into your plans and specifications booklet.

Wall Reinforcement/Operation and Maintenance Guideline

The as-built plans indicate the exterior calf barn wall uses wire mesh around the wood posts along the north and east walls of the barn. Because the exterior wall was not properly reinforced, manure

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cannot be piled against the wall. The department is requiring the Operation and Maintenance Guideline to be updated to include language stating manure shall not be piled against the exterior walls. Please submit a signed operation and maintenance guideline to the department after you have reviewed the changes with your engineer. If the department finds manure or process wastewater leaving the calf barn or makes observations that give us concerns about the structural integrity of the walls, additional requirements may be required.

Inspection Findings

The department conducted an Operation and Maintenance inspection at your operation on October 29, 2020. During the inspection, it was noted that unapproved construction had taken place at the north and south dairies. **You cannot make changes to your permitted manure management system without department approval. This is a requirement of your permit.**

You are 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. It is up to local government to enforce their local ordinances.

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

cc: Brian Friedrichsen, PE, DEC, Huron, SD
Luke Muller, F.D.A.L.G., Watertown, SD
Brookings County Commissioners