



DEPARTMENT OF NATURAL RESOURCES

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OCT 30 2014

Mr. Chris Powell, General Manager
Sharpe Land & Cattle Co.
12539 255th St.
LaBelle, MO 63447

RE: Goat Dairy Expansion – Sharpe Land & Cattle Co., MO-0119962,
Construction Permit CPCF00075, Construction Permit Time Extension

Dear Mr. Powell:

The Department of Natural Resources, Water Protection Program received a construction permit extension request on October 24, 2014, for the Sharpe Land & Cattle Co. The request for additional time for Construction Permit Number CPCF00075 has been granted but only for a period of 12 months and will expire November 7, 2015. The Department feels this is an adequate length of time to complete the planned construction. This permit extension authorizes construction of the facilities described on the permit dated November 7, 2012. This construction permit extension does not supersede any requirements of the operating permit or enforcement actions.

In accordance with 10 CSR 20-6.010(4)(G), the Department can only grant time extensions once. Thus, if the project is not complete by November 7, 2015, the applicant must submit a new construction permit application and fee.

If you were adversely affected by this decision, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with the Administrative Hearing Commission within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the Administrative Hearing Commission.

Sharpe Land & Cattle Co.
MO-0119962/CPCF00075
Lewis County
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If you have any questions concerning this matter, please contact Diane Reinhardt, of the Water Protection Program, at 573-751-6568 or Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



John Madras
Director

JM:drm

Enclosure

c: Barbara Li, Shafer, Kline, & Warren, Inc.
Tony Boone, Boone Consulting
Northeast Regional Office

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Sharpe Holdings

for the construction of (described facilities):

one loafing barn, an expansion of one barn, and a modification of a storage lagoon (Feature #009) based on the plans received by the Water Protection Program

Permit Conditions:

See attached sheet

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources.

As the Department of Natural Resources does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the department may inspect the work covered by this permit during construction. Issuance of a permit to Operate by the department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

November 7, 2012
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

November 6, 2014
Expiration Date


John Madras, Director, Water Protection Program

**DETAILED OPERATION DESCRIPTION
For Concentrated Animal Feeding Operations
Construction Permit**

FACILITY INFORMATION

Operation: Sharpe Land & Cattle Co. Class: IA
Operation Address: 12539 255th St., LaBelle, MO 63447
Owner: Sharpe Holdings
Owner Address: 12539 255th St., LaBelle, MO 63447
Continuing Authority: Sharpe Holdings
Continuing Authority Address: 12539 255th St., LaBelle, MO 63447

Primary SIC Code (Discharge):0241 & 0214 Primary SIC Code (Industry): 0241 & 0214

DESIGN APPROVED FOR THIS OPERATION

Number and Type of Animals: 8514 dairy cows and 3400 goats
Animal Units: 12,503
Total Design Flow (gpd): 514,041 (operation total)
Land Application Acres -
 Owned: 9560 Under Spreading Agreement: 0 Total: 9560

Feature #001 - West Complex

Feature Description: Storage lagoon and manure solids composter
Legal Description: SW1/4, NW ¼, SE ¼, Sec. 4, T60N, R9W, Lewis County
UTM Coordinate: X = 593713 Y = 4431094
Receiving Water: Tributary to Troublesome Creek (U)
First Classified Stream and ID: Troublesome Creek (C) (0074) 303(d)
USGS Basin and Sub-Watershed No: 07110003-0203
Number and Type of Animals: 2,625 dairy cows and 800 dairy goats (proposed)
Animal Units: 3830
Storage Structure Type: Storage lagoon
Design Storage structure size (at the overflow level) -
Surface Area (sq. ft.): 485,390
Total Depth (ft.): 16
Total Storage Capacity (gal.): 47,199,300
Storage structure operating levels (measured in feet below emergency spillway) -
Upper operating level (ft): 1.5
Lower operating level (ft): 14
Production area draining into storage basin (acres): 12.63
Design Storage Period (days): 618
Design Wastewater (gal/yr.): 27,840,375
Design Dry Process Waste (tons/yr.): 498

Feature #009 - Goat Milking Facility

Feature Description: Waste storage lagoon

Legal Description: SW ¼, NW ¼, Sec. 16, T60N, R9W, Lewis County

UTM Coordinate: X = 592844 Y = 4428644

Receiving Water: Seebers Branch (U)

First Classified Stream and ID: South Fabius River (P) (0071) 303(d)

USGS Basin and Sub-Watershed No: 07110003-0305

Number and Type of Animals: 2600 dairy goats (proposed)

Animal Units: 260

Storage Structure Type: Storage lagoon

Design Storage structure size (at the overflow level) -

Surface Area (sq. ft.): 14,929

Total Depth (ft.): 11

Total Storage Capacity (gal.): 702,959

Storage structure operating levels (measured in feet below emergency spillway) -

Upper operating level (ft): 1.0

Lower operating level (ft): 9.0

Production area draining into storage basin (acres): 0

Design Storage Period (days): 270

Design Wastewater (gal/yr.): 931,008

Design Dry Process Waste (tons/yr.): 2790

Design Storm Volume Storage; 25 yr-24 hr storm (cu. ft.): 8537

Feature #054 - Domestic Waste Basin: SIC #4952

Feature description: No-discharge domestic wastewater lagoon

Legal Description: SW ¼, NW ¼, Sec. 16, T60N, R9W, Lewis County

UTM coordinates X = 592826, Y = 4428599

Receiving stream: Tributary to Seebers Branch (U)

First classified stream and ID: Fabius River (P) (0071) 303(d)

USGS Basin & Subwatershed No. 07110003-0305

Design Storage structure size (at the overflow level) -

Surface Area (sq. ft.): 2652

Total Depth (ft.): 8.3

Total Storage Capacity (gal.): 146,580

Storage structure operating levels (measured in feet below emergency spillway) -

Upper operating level (ft): 1.0

Lower operating level (ft): 6.3

Design Storage period: 142 days

Design Flow (gal/yr): 146,580

Additional Operational Description:

This farm has three dairy complexes designated as the west complex (Feature #1), the east complex (Feature #2), and the dairy complex (Feature #3). The west complex has an animal waste storage lagoon, a domestic wastewater lagoon, one production barn for 800 head of goats, and a solids composter.

The east complex has a waste treatment lagoon, a mortality compost structure, and a solids separator with a concrete storage pit. The number of animals at each dairy complex may vary provided the total number of cows at the operation does not exceed 8,514 head. Solids are scraped and separated for land application or composting. Any wastewater collected in the concrete pit or residual manure flushed from the complex drains to the waste treatment lagoon.

The dairy complex houses up to 4464 head of dairy cows in recycled water flushed freestall barns. Wastes are removed from the milk parlor using a freshwater flush system. The dairy complex utilizes a two-cell waste treatment lagoon to store wastewater from the milk parlor and production barns and has a compost bedding barn, a mortality composter, a storm water detention pond, and a lift station with associated forcemains. Each cell of the two cell dairy complex lagoon can operate independently or as a system.

The farm also has a 2600 head (proposed) grazing goat dairy (Feature #009) with a separate milking parlor, an animal waste storage lagoon, three loafing barns, and a domestic waste treatment lagoon. Wastes from the loafing barns are kept dry with bedding and occasionally removed and hauled to the composting operation or used for land application. Wastewater from the milk parlor is transferred to the waste storage lagoon at the goat dairy.

Washburn Farm storage lagoon, Feature #010, stores wastewater transferred from the dairy complexes. Wastewater from the storage lagoons is land applied utilizing center pivot systems and sprinkler systems connected to an extensive distribution system.

SECTION A. GENERAL CONSTRUCTION CONDITIONS

- (1) Additional construction specifications contained in the application and engineering plans shall be followed.
- (2) This permit does not authorize operation of these manure management systems. Upon completion of construction of all components covered by this permit, follow the steps outlined in the cover letter to this permit to apply for an operating permit.
- (3) Issuance of a permit for operation of these systems will be contingent on the work substantially adhering to the approved plans and specifications. Contact the design engineer and the department before making substantial deviations from the approved plans and specifications. Department staff will determine whether the changes will be allowed and whether the changes require a change order to the construction permit and/or additional neighbor notifications. Major changes may require a new construction permit.
- (4) All cleanouts installed at the approved operation shall be clearly marked with a post that is visible during all stages of vegetative growth.
- (5) As the Missouri Department of Natural Resources does not examine structural features of design or mechanical equipment, the issuance of this permit does not include approval of these features.
- (6) If greater than one acre of land will be disturbed during construction activities, a land disturbance permit must be obtained before any land grading begins. Land disturbance permits can be obtained by contacting the department's regional office for your area.

SECTION B. CONSTRUCTION CONDITIONS FOR EARTHEN BASINS

- (1) Lagoons and earthen impoundments shall be constructed with a flat bottom.
- (2) Compaction of the berm fill material and bottom seal material with only a bulldozer will usually not meet compaction requirements.
- (3) The minimum seal thickness shall be twelve (12) inches, unless otherwise specified in the approved plans and specifications. The bottom seal and berm fill shall be brought up in horizontal layers not to exceed six (6) inches in thickness. Installation of the liner shall be according to the approved plans.
- (4) The seal on the inner slopes of the basin shall extend up to where the liner intersects the top of the berm.
- (5) Each layer of fill and seal material shall be compacted under optimum moisture conditions to achieve the required compacted permeability of 1×10^{-7} cm/sec, or less.
- (6) Upon completion of the seal installation, a protective device shall be installed to prevent erosion of the seal at all pipe inlet locations. The method of protection shall ensure the integrity of the seal from turbulence at all stages of operation from the prefill stage to the maximum operating level.
- (7) All basins shall be prefilled with fresh water to a minimum depth of two feet. At least two feet of liquid level shall be maintained at all times to protect the constructed seal.
- (8) The berm shall be seeded and mulched as soon as site conditions allow.
- (9) The recommendations contained in the geologic report from the Missouri Department of Natural Resources, Division of Geology and Land Survey shall be followed, unless otherwise specified in this permit
- (10) A pumpdown marker shall be installed and maintained, clearly showing the level of the emergency spillway and one foot increments, down to the lower pumpdown marker.

SECTION C. COMPOSTERS

Construction permits are not required for the composting of dead animals at Class IC or smaller operations when –

- A. The compost operation and raw materials storage are located in enclosed buildings with impermeable floors; or
- B. The unroofed compost area covers less than five thousand (5,000) square feet and is underlain with an impermeable floor, and raw materials are covered by a tarp or impermeable cover.

Traditional hay bale composters are not allowed as a permanent mortality management method at Class IC and larger CAFOs. Hay bale composters are allowed only on a temporary basis, not to exceed 18 months.

SECTION D. PROJECT SPECIFIC REQUIREMENTS

There are no site-specific requirements for this project.

