

Rosendale Dairy

Permit Fact Sheet-Modification Addendum

1 General Information

Permit Number:	WI-0063959-01-2
Permittee Name:	Rosendale Dairy LLC
Address:	N8997 County Road M
City/State/Zip:	Pickett WI 54964
Discharge Locations:	Rosendale Dairy LLC, Sec. 9, T16N, R15E, Town of Rosendale
Receiving Water:	West Branch of the Fond du Lac River and Groundwaters of the Fond du Lac River Basin

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Milking and Dry Cows	5600	5720	11200	11440	01/01/2010
Steers or Cows (400 lbs. to market)	150	150	300	300	01/01/2010
Total	5750	5729	11500	11400	

2 Facility Description

Brief Facility Description: Rosendale Dairy is a WPDES permitted dairy. The current permit, issued for Phase I of the operation, limits the number of cattle to a maximum of 4000 dairy cows and 150 beef cattle (maximum of 5,750 Animal Units or AUs). Phase I of the operation included construction of a freestall barn, a milking parlor with one 80-cow rotary milker, manure handling equipment and storage, feed storage, leachate collection and stormwater basins. The operation is located at N8997 County Highway M, Pickett, WI 54964, in Section 9, Town of Rosendale, Fond du Lac County.

Rosendale Dairy has requested modifications to the permit to account for Phase II of their operation in order to increase animal numbers at the site to 8,000 milking cows and 300 beef cattle (11,500 AUs). Phase II of the operation will include the addition of a second freestall barn and a second 80-cow rotary milker to house and milk the additional animals. No structures requiring DNR review and approval will be constructed as part of Phase II. In addition, Rosendale Dairy requested that the monitoring frequency for the groundwater monitoring system around the production area be reduced from monthly to quarterly.

With the proposed 11,500 animal units at the site, it is estimated that approximately 92 million gallons of liquid manure and process wastewater will be produced per year. The permittee owns about 2,115 acres of cropland and rents about 10,827 acres for a total of 12,942 acres included in the operation's Nutrient Management Plan. Given the rotation

commonly used by the permittee, approximately 12,180 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan.

Proposed Modifications: The following modifications to Rosendale Dairy are being public noticed and are subject to public comment. The remainder of the permit terms and conditions are not being modified and are not subject to public comment.

- **Cover Page:** The cover page of the permit has been modified to reflect the proposed increase in animal numbers at Rosendale Dairy from 5,750 AUs to 11,500 AUs as part of the Phase II of the operation.

In addition, Rosendale Dairy has submitted revisions to its Nutrient Management Plan to accommodate the increase in manure and process wastewater produced as a result of the expansion.

- **Groundwater Monitoring – Production Area:** The design management zone has been modified to reflect the appropriate design management zone for storage structures (100 feet) in s. NR 140.22(3)(d), Wis. Adm. Code. In accordance with ch. NR 140, Wis. Adm. Code, enforcement standards do not apply to indicator parameters (e.g., Total Dissolved Solids, Total Kjeldahl Nitrogen) and have been removed. A typographical error that did not specify monthly monitoring for total dissolved solids has also been corrected.

The permittee requested a reduction in sampling frequency from monthly to quarterly for parameters associated with the production area groundwater monitoring system. The Department has proposed language that would allow the Department to grant a reduction in monitoring frequency to quarterly provided 24 months of monitoring indicates that such a reduction is warranted. The changes to this section are indicated in redline/strikeout below.

2.1.1. Groundwater Monitoring System for Production Area

Location of Monitoring System: The vicinity of the production area.

Wells to be Monitored: To be identified after plans and specifications for the groundwater monitoring system are approved by the department and after the wells of the system are installed and developed.

Well Used To Calculate Preventive Action Limits (PALs): To be identified after plans and specifications for the groundwater monitoring system are approved by the department and after the wells of the system are installed and developed.

PALs and Enforcement Standards (ESs) to be determined in the table below shall be calculated based on background groundwater quality data from designated wells after 8 consecutive samples have been collected. Once PALs and ESs are determined, these values will be placed in the table below and will not result in further public noticing of this permit. Groundwater contaminant concentrations shall be minimized and PALs met in groundwater monitoring wells to the extent that is technically and economically feasible.

Compliance Well(s) for Enforcement Standards (ESs): To be identified after plans and specifications for the groundwater monitoring system are approved by the department and after the wells of the system are installed and developed.

Enforcement standards are to be met in groundwater located beyond the ~~100~~²⁵⁰ foot design management zone, or at the property boundary, whichever is closer to the production area. See the Standard Requirements section of this permit for additional conditions related to exceedance of groundwater standards.

Required Monitoring: Grab samples shall be collected from each well to be monitored each year as shown in the table below. Monitoring shall commence 30 days after the wells are installed and developed. The groundwater grab samples shall be analyzed for the parameters specified in the table below.

Parameter	Units	Preventative Action Limits	Enforcement Standard	Frequency ¹
-----------	-------	----------------------------	----------------------	------------------------

Depth To Groundwater	feet	*****	N/A	Monthly
Groundwater Elevation	feet MSL	*****	N/A	Monthly
Total Dissolved Solids	mg/l	To Be Determined	none To Be Determined	<u>Monthly</u>
COD	mg/L	To Be Determined	none	Monthly
Chloride	mg/L	125 mg/l	250 mg/l	Monthly
Nitrogen, Ammonia (NH ₃ -N) Total	mg/L	To Be Determined	none	Monthly
Nitrogen, Total Kjeldahl	mg/L	To Be Determined	none To Be Determined	Monthly
Nitrogen, Nitrite + Nitrate Total *	mg/L	2 mg/l	10 mg/l	Monthly
pH Lab	su	To Be Determined	none	Monthly
Total Coliform	#/100 ml	0/100 ml	0/100 ml	Monthly

¹ The Department may approve, in writing, a reduction in sample frequency from monthly to quarterly, provided sample results for 24 consecutive months do not exceed applicable preventative action limits and indicate low data variability. If, at any time, sampling indicates an exceedance of the preventative action limit for any parameter, monitoring for all parameters shall return to monthly. Returning to monthly monitoring does not require prior Department approval.

*In the event that background well concentrations exceed the PAL or ES for this parameter, the Department will calculate Alternative Concentration Limits (ACL's) in accordance with procedures in Chapter NR 140, Wis. Adm. Code, and these values will be placed in the table above and will not result in further public noticing of this permit.

- **Compliance Schedules:** The permit has been modified to add the following section (3.9) to the permit. The North Feed Pond collects runoff from the corn silage and haylage feed storage pad, settling solids and metering the rate of discharge to the vegetated treatment area (VTA). Storm water runoff from the north portion of the operation is also directed to the North Feed Pond. The permittee shall demonstrate that this runoff control system is properly designed to manage both process wastewater and storm water discharges and will ensure proper operation of the VTA for the purposes of complying with production area discharge limitations.

3.9 Feed Storage - Engineering Evaluation

Evaluate discharges of storm water runoff to the North Feed Pond.

Required Action	Date Due
Written Description of Existing System: Submit an engineering evaluation of the North Feed Pond and associated vegetated treatment area (VTA). The evaluation shall include a written description of the adequacy of the North Feed Pond and VTA to properly manage process wastewater from feed	01/01/2010

storage areas and storm water runoff from the north portion of the operation and meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code.	
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation in accordance with s. 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	03/01/2010
Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	08/01/2010

3 Other Comments:

A public informational hearing on this proposed WPDES permit modification has been scheduled for Thursday, December 3, 2009, at 5 pm at the Royal Ridges, 1 Westgate Drive (just off W. Fond du Lac St. which is also known as Hwy 23/49), Ripon, WI 54971, for the purpose of giving all interested parties an opportunity to make a statement with respect to the permit action. Written comments will also be accepted as indicated in the Public Notice for this permit action.

As part of the issuance process for Rosendale Dairy's original WPDES permit, The Department completed an Environmental Impact Statement (EIS) on February 27, 2009, in compliance with Wisconsin Environmental Policy Act (WEPA), s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code. The EIS is available on the Department web-site at: <http://dnr.wi.gov/runoff/ag/permits.htm> (click on the "Statistics" tab to access the previously completed EIS). The EIS evaluated potential environmental impacts associated with both Phase I and Phase II of the Rosendale Dairy project. The Department has reviewed the proposed modifications to Rosendale Dairy's Nutrient Management Plan, including the addition of landspreading acreage associated with the proposed expansion to 11,500 AUs, and has determined that potential impacts associated with these modifications and modifications to the permit itself are addressed by the February 27, 2009, EIS. Therefore, the Department is proposing no further action under ch. NR 150, Wis. Adm. Code.

4 Proposed Expiration Date:

February 28, 2014

Prepared By:

**Gordon Stevenson, Chief
Runoff Management Section**

Date: October 27, 2009