

Public Noticed River Falls AD1 Draft Permit Fact Sheet

General Information

Permit Number	WI-0067593-01-0
Permittee Name and Address	River Falls AD1, LLC W10247 County Road FF, River Falls, WI 54022
Permitted Facility Name and Address	River Falls AD1, LLC W10247 County Road FF
Permit Term	January 01, 2026 to December 31, 2030
Discharge Location	the groundwaters of the Kinnickinnic River Watershed in the St. Croix River Drainage Basin located in Pierce County
Stream Flow (Q _{7,10})	N/A, groundwater discharge
Stream Classification	N/A, groundwater discharge
Discharge Type	New

Facility Description

The facility will produce Renewable Natural Gas (RNG) from the anaerobic co-digestion of dairy manure and unwanted food. Dairy manure will be supplied from the Peterson Family Dairy Farm at approximately 9,751 STPY. Unwanted food (organics) will be delivered via trucks. Liquid organics can be delivered through a camlock system directly into a hydrolysis tank or unloaded within the enclosed Organics Receiving Area (ORA). Liquid organics will total approximately 22,600 STPY. Packaged food materials, SSO, FOG, glycerin, and canned liquids will be delivered within the enclosed ORA at approximately 93,000 STPY. Food materials are macerated into a slurry and fed to the anaerobic digester. The nutrient rich liquid digestate is land applied for agronomic benefit while the solid digestate is land applied or sent to a landfill. Solids from dewatered manure only are sent back to Peterson Dairy Farm to be used as bedding. All removed packaging materials is disposed of according to the facility's Solid Waste Permit.

Substantial Compliance Determination

This is a new permit; compliance has not yet been determined. – Peter Carlson

Sample Point Descriptions

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
701		Wet stillage (New Richmond, WI)
702		Agropur Le Sueur, MN, animal feed wastewater
703		Agropur - Le Sueur, MN, return activated sludge (RAS) biosolids
704		Agropur - Le Sueur, MN, waste activated sludge (WAS) and combined DAF

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
705		Ellsworth Coop Creamery, Ellsworth, WI, Permeate
706		Ellsworth Coop Creamery, Ellsworth, WI, High Strength Wastewater (WWTP Extract)
707		Ellsworth Coop Creamery, Ellsworth, WI, Salt Whey
708		Innovative Waste Recycling, Lloyd's BBQ, St. Paul, MN, BBQ Meat Sauce
709		Pilgrim's Pride, Arcadia, WI, DAF/Hatchery waste
710		Potter Cranberry (American Berry), Warrens, WI, liquid organics
801		Liquid manure from Peterson farm, discharged to digester or via the dewatering system
001		Anaerobically digested industrial liquid sludge from the digester receiving manure and industrial waste following dewatering (screw press) that is transferred to the onsite storage lagoon and applied to approved land application sites. Storage lagoon shall be adequately mixed prior to sample collection.
002		Dewatered, anaerobically digested industrial sludge and manure following screw press. Solids are stored on the concrete floor inside the Solids Separation Building, separate from manure solids, prior to land application. Direct land application of dewatered sludge shall be approved by the department prior to spreading.
003		Manure generated from cattle from Peterson Dairy that is dewatered with a screw press. Sample collection and monitoring are only required if directly land applied to approved landspreading sites. If manure is distributed to any agricultural producer for land application under their NMP then the total volume shall be reported on the 3400-52 form for that reporting period.
101		Condensate from the biogas system that is stored in the condensate pit prior to transfer to the storage lagoon.

Permit Requirements

1 Influent – Monitoring Requirements

1.1 Sample Point Number: 701- 45th Parallel Distillery; 702- Agropur, Animal Feed WW; 703- Agropur - RAS Biosolids; 704- Agropur, WAS&DAF; 705- Ellsworth Creamery, Permeate; 706- Ellsworth Creamery, Hi Strength; 707- Ellsworth Creamery, Salt Whey; 708- IWR, Lloyd's BBQ Meat Sauce; 709- Pilgrims Pride, DAF, Hatchery; 710- Potter Cranberry, liquid organ

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Volume		gpd	Daily	Measure	The volume for each sample point shall be monitored and reported separately on the Discharge Monitoring Report
Solids, Total		Percent	Annual	Grab	
pH Field		su	Annual	Grab	
COD		mg/kg	Annual	Grab	Shall be reported on a dry weight basis
Nitrogen, Total Kjeldahl		mg/kg	Annual	Grab	Shall be reported on a dry weight basis
Nitrogen, Ammonia (NH ₃ -N) Total		mg/kg	Annual	Grab	Shall be reported on a dry weight basis
Chloride		mg/kg	Annual	Grab	Shall be reported on a dry weight basis
Phosphorus, Total		mg/kg	Annual	Grab	Shall be reported on a dry weight basis
Potassium, Total Recoverable		mg/kg	Annual	Grab	Shall be reported on a dry weight basis

1.1.1 Explanation of Limits and Monitoring Requirements

Influent monitoring is required because hauled-in industrial organic food wastes and dairy manure are received from various sources.

1.2 Sample Point Number: 801- Liquid Manure Permitted

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Volume		gpd	Daily	Total Daily	

1.2.1 Explanation of Limits and Monitoring Requirements

Monitoring of influent liquid manure flow from livestock operations to Vanguard River Falls ADI's digester.

2 Inplant - Monitoring and Limitations

2.1 Sample Point Number: 101- Biogas Condensate

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Annual	Estimated	
Oil & Grease (Hexane)		mg/L	Annual	Grab	
pH Field		su	Annual	Grab	

2.1.1 Explanation of Limits and Monitoring Requirements

Monitoring of biogas condensate annually to meet NCCW, Condensate, and Boiler Blowdown General Permit Requirements.

3 Land Application - Sludge/By-Product Solids (industrial only)

3.1 Sample Point Number: 001- Liquid Digestate

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Hydraulic Loading Rate		gal/acre	Per Occurrence	Measure	
Chloride		Percent	Monthly	Grab	
Nitrogen, Total Kjeldahl		Percent	Monthly	Grab	
Nitrogen, Nitrite + Nitrate Total		Percent	Monthly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		Percent	Monthly	Calculated	
pH Field		su	Monthly	Grab	
Phosphorus, Total		Percent	Monthly	Grab	
Potassium, Total Recoverable		Percent	Monthly	Grab	
Cadmium Dry Wt		mg/kg	Monthly	Grab	
Copper Dry Wt		mg/kg	Monthly	Grab	
Lead Dry Wt		mg/kg	Monthly	Grab	
Nickel Dry Wt		mg/kg	Monthly	Grab	
Zinc Dry Wt		mg/kg	Monthly	Grab	
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

3.1.1 Explanation of Limits and Monitoring Requirements

Requirements for land application of industrial sludge are determined in accordance with ch. NR 214 Wis. Adm. Code.

PFAS- The presence and fate of PFAS in municipal and industrial sludges is an emerging public health concern. EPA has developed a draft risk assessment to determine future land application rates and released this risk assessment in January of 2025. The department is evaluating this new information. Until a decision is made, the “Interim Strategy for Land Application of Biosolids and Industrial Sludges Containing PFAS” should be followed.

Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department’s implementation of EPA’s recommendations. To quantitate this risk, PFAS sampling has been included in this WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

3.2 Sample Point Number: 002- Solid Digestate

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Monthly	Grab	
Chloride		Percent	Monthly	Grab	
COD		Percent	Monthly	Grab	
Nitrogen, Total Kjeldahl		Percent	Monthly	Grab	
Nitrogen, Nitrite + Nitrate Total		Percent	Monthly	Grab	
Nitrogen, Total		Percent	Monthly	Calculated	
pH Field		su	Monthly	Grab	
Phosphorus, Total		Percent	Monthly	Grab	
Potassium, Total Recoverable		Percent	Monthly	Grab	
PFOA + PFOS		ug/kg	Annual	Calculated	Report the sum of PFOA and PFOS. See PFAS Permit Sections for more information.
PFAS Dry Wt			Annual	Grab	Perfluoroalkyl and Polyfluoroalkyl Substances based on updated DNR PFAS List. See PFAS Permit Sections for more information.

3.2.1 Explanation of Limits and Monitoring Requirements

Requirements for land application of industrial sludge are determined in accordance with ch. NR 214 Wis. Adm. Code.

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Collecting sludge data on PFAS concentrations from a wide range of wastewater treatment facilities will help protect public health from exposure to elevated levels of PFAS and determine the department’s implementation of EPA’s recommendations. To quantitate this risk, PFAS sampling has been included in this WPDES permit pursuant to ss. NR 214.18(5)(b) and NR 204.06(2)(b)9., Wis. Adm. Code.

3.3 Sample Point Number: 003- Manure Only- Dewatered

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Annual	Grab	
Nitrogen, Total Kjeldahl		Percent	Annual	Grab	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Annual	Grab	
Chloride		Percent	Annual	Grab	
Phosphorus, Total		Percent	Annual	Grab	
Phosphorus, Water Extractable		% of Tot P	Annual	Grab	

3.3.1 Explanation of Limits and Monitoring Requirements

This land application sample point shall be utilized to track and report the bedding returned to Peterson Dairy Farm from the dewatered manure.

Requirements for manure generated are determined in accordance with ch. NR 214, Wis. Adm. Code. The permittee should complete the Other Methods of Disposal or Distribution Report (Form 3400-52) for all manure from Peterson Dairy Farm that is distributed off-site to agricultural producers for land application to fields in agricultural production; total volumes of manure distributed to each agricultural producer should be reported on the form. Sampling is only required if the manure is mixed with industrial waste generated by the permitted facility and directly land applied on sites approved for industrial waste under the permit, including approved manure storage structures.

Water Extractable Phosphorus (WEP) – WEP is the coefficient for determining plant available phosphorus from measured total phosphorus. In Wisconsin, the Penn State Method is utilized and is expressed in percent. While a total P may be significant, the WEP may show that only a small percentage of the P is available to plants because of factors such as treatment processes and chemical addition that “tie-up” phosphorus limiting the amount of phosphorus that is plant available. As part of the Wisconsin’s nutrient management plan (NMP) requirements, the accounting of all fertilizers must be included over the NMP cycle. The fertilizer value of the waste needs to be communicated to the farmer and accounted for in the NMP.

4 Schedules

4.1 Operations / Management Plan

Required Action	Due Date
Management Plan: Submit a management plan to document expected system operations and demonstrate compliance with the conditions of this WPDES permit and Wisconsin Administrative Code NR 214. If operational changes are needed, the management plan shall be amended by submitting a written request to the Department for approval.	03/31/2026

Management Plan Annual Update #1: Submit an update to the management plan that includes changes in waste management and/or land application practices that occurred during the previous calendar year, including but not limited to: waste storage, land application sites, additional waste sources, vehicles/equipment, and nutrient management plan verification documentation for unpermitted farms/sources of manure.	12/31/2026
Management Plan Annual Update #2: Submit an update to the management plan that includes changes in waste management and/or land application practices that occurred during the previous calendar year, including but not limited to: waste storage, land application sites, additional waste sources, vehicles/equipment, and nutrient management plan verification documentation for unpermitted farms/sources of manure.	12/31/2027
Management Plan Annual Update #3: Submit an update to the management plan that includes changes in waste management and/or land application practices that occurred during the previous calendar year, including but not limited to: waste storage, land application sites, additional waste sources, vehicles/equipment, and nutrient management plan verification documentation for unpermitted farms/sources of manure.	12/31/2028
Management Plan Annual Update #4: Submit an update to the management plan that includes changes in waste management and/or land application practices that occurred during the previous calendar year, including but not limited to: waste storage, land application sites, additional waste sources, vehicles/equipment, and nutrient management plan verification documentation for unpermitted farms/sources of manure.	12/31/2029
Ongoing Management Plan Update: Continue to submit Annual Updates to the Management Plan in accordance with this schedule item until permit reissuance has been completed.	

4.1.1 Explanation of Schedule

Complete management plan submittal is required per s. NR 214.17(6)(c) and NR 214.18(6)(c). Annual update reports to the management are required starting in 2025 that include all pertinent information related to waste management and/or land application practices that occurred during the previous calendar year. This includes, but is not limited to:

- Waste storage
- Land application sites
- Additional waste sources
- Changes in vehicles/equipment/treatment processes
- Nutrient management plan documentation for unpermitted sources of manure

4.2 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
Land Application Management Plan: Submit a management plan to optimize the land application system performance and demonstrate compliance with Wisconsin Administrative Code NR 214.	03/31/2026

4.2.1 Explanation of Schedule

Land Application Management Plan (industrial)- An up-to-date Land Application Management plan is a standard requirement in reissued industrial permits per s. NR 214.17(6)(c), Wis. Adm. Code.

Other Comments

TBD

Attachments

Public Notice: River Falls Journal, PO Box 25, River Falls, WI 54022

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this new permit issuance

Prepared By: Angela Parkhurst

Wastewater Specialist

Date: October 7, 2025