

Permit Fact Sheet

General Information

Permit Number	WI-0059480-06-0
Permittee Name and Address	Billerud Quinnesec LLC PO Box 191, Norway, MI 49870
Permitted Facility Name and Address	Billerud Quinnesec LLC W6791 US Highway 2, Quinnesec, MI
Permit Term	October 01, 2026 to September 30, 2031
Discharge Location	Land application of sludge on Department approved sites in Florence and Marinette Counties in Wisconsin

Facility Description

Billerud Quinnesec LLC produces approximately 1,400 tons per day of bleached kraft pulp and 1,300 tons per day coated freesheet paper. Since 1995, the Quinnesec mill has bleached its pulp with an elemental chlorine-free process that includes oxygen delignification and employs chlorine dioxide and hydrogen peroxide. Billerud treats its process wastewaters in an activated-sludge treatment system, which discharges to the Menominee River; this discharge is covered by a NPDES Permit issued by the State of Michigan. Billerud's wastewater treatment plant produces approximately 90 dry tons of sludge per day. Wastewater treatment system sludge is land applied approximately 210 days per year on Department approved sites. The mill landfills its sludge in its licensed, on-site landfill when land application is not possible. Land application of sludge occurs primarily in Florence and Marinette Counties in Wisconsin and is conducted in accordance with the facility's approved Land Application Management Plan. All land application sites in Wisconsin are approved by the Department prior to the application of mill sludge. Covered and sealed dump trucks haul the sludge to land application sites. Sludge is generally land applied on the same day that the sludge is hauled to the application site.

Substantial Compliance Determination

After a desktop review of all land application reports, compliance schedule items, and a site visit on June 3rd, 2026, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Teresa Hall, Wastewater Specialist on XX/XX/XX.

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)
002	9,475 dry tons/year (2025)	LAND APPLICATION: Pulp and paper making waste residual and wastewater treatment plant activated sludge. Samples are collected at the discharge of the press on the operating floor or from the sludge bay.

Permit Requirements

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

1.1 Sample Point Number: 002- WWTP SLUDGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Grab Comp	
pH Field		su	Quarterly	Grab Comp	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Grab Comp	
Nitrogen, Ammonium (NH ₄ -N) Total		Percent	Quarterly	Grab Comp	
Nitrogen, Nitrite + Nitrate Total		Percent	Once	Grab Comp	Sample in 2027.
Phosphorus, Total		Percent	Quarterly	Grab Comp	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab Comp	
Potassium, Total Recoverable		Percent	Quarterly	Grab Comp	
Chloride		Percent	Quarterly	Grab Comp	
Fluoride		mg/kg	Once	Grab Comp	Sample in 2027.
Sulfate, Total		mg/kg	Once	Grab Comp	Sample in 2027.
Aluminum Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Barium, Total Recoverable		mg/kg	Once	Grab Comp	Sample in 2027.
Boron Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Cadmium Dry Wt		mg/kg	Annual	Grab Comp	
Calcium Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Chromium Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Copper Dry Wt		mg/kg	Annual	Grab Comp	
Iron Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Lead Dry Wt		mg/kg	Annual	Grab Comp	
Magnesium Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Manganese Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Mercury Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Molybdenum Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nickel Dry Wt		mg/kg	Annual	Grab Comp	
Sodium Dry Wt		mg/kg	Once	Grab Comp	Sample in 2027.
Strontium, Total Recoverable		mg/kg	Once	Grab Comp	Sample in 2027.
Zinc Dry Wt		mg/kg	Annual	Grab Comp	
PCB Total Dry Wt		mg/kg	Once	Grab	Sample in 2027.
PFOA + PFOS		ug/kg	Annual	Calculated	Sample in 2027. 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.
Dioxins & Furans (all congeners)			Once	Composite	Sample in 2027. As specified in ch. NR 106.115, Wis. Adm. Code.
Priority Pollutant Scan			Once	Grab	Sample in 2027. As specified in ch. NR 215.03 (1-6), Wis. Adm. Code (excluding asbestos). Use grab samples for mercury, cyanide and VOCs. Use 24-hr flow proportional samples for all other parameters.

1.1.1 Changes from Previous Permit:

Sludge limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under “Explanation of Limits and Monitoring Requirements” below.

Phosphorus, Phosphorus Water Extractable, Potassium, Chloride – Monitoring frequency changed.

PFAS- Monitoring is required once pursuant to s. NR 214.18(5)(b), Wis. Adm. Code.

Sample Type- The sample type for all parameters excluding PCB, PFOA/PFOS, Dioxins & Furans, and the Priority Pollutant Scan have been changed from “grab” to “grab composite” to align with the sample collection method of the permittee.

1.1.2 Explanation of Limits and Monitoring Requirements

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

Phosphorus, Phosphorus Water Extractable, Potassium, Chloride – Monitoring frequency updated from “Annual” to “Quarterly” to align with the monitoring frequencies in the Landspreading of Industrial Sludge General Permit WI-0057657-7.

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.

2 Schedules

2.1 Land Application Management Plan

A management plan is required for the land application system.

Required Action	Due Date
Land Application Management Plan: Submit an update to the management plan to optimize the land application system performance and demonstrate compliance with Wisconsin Administrative Code NR 214.	10/01/2027

2.1.1 Explanation of Schedule

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

The State of Michigan has issued Billerud Quinnesec LLC a NPDES Permit for its wastewater discharge to the Menominee River. The Department has issued Billerud Quinnesec LLC a WPDES Permit for the land application of wastewater treatment system sludge on Department approved sites in Wisconsin.

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Ashley Clark, Wastewater Specialist

Date: June 16, 2026