

Permit Fact Sheet

General Information

Permit Number	WI-0052035-10-0
Permittee Name and Address	Arena Cheese Inc PO Box 136, Arena, WI 53503
Permitted Facility Name and Address	Arena Cheese Inc 300 US Hwy 14, SEQ SWQ SEC 16 T8N R5E
Permit Term	October 1, 2025 to September 30, 2030
Discharge Location	On site and at nearby approved land application sites
Receiving Water	Groundwaters of the Mill and Blue Mounds Creek Watershed (LW15)
Discharge Type	Existing Continuous

Facility Description

Arena Cheese in Arena, Wisconsin produces primarily Colby, Cheddar and Colby Jack cheeses. Cheese making typically occurs 5 days/week from raw milk delivery of around 76 Mlbs/yr. Whey derived from cheesemaking and from outside sources is concentrated by ultrafiltration (UF) and sold for further off-site processing. UF permeate is then either polished by reverse osmosis (RO) and reused in the plant, or as a contingency, land applied under Outfall 005. RO concentrate is either discharged to the Village of Arena wastewater treatment plant or also land applied under Outfall 005 as a contingency. Process wastewater generated from cleanup of tanks, vats, equipment, and floors following cheese making and packaging operations is land applied under Outfall 002. Boiler blowdown is discharged to an onsite overland flow land treatment system under Outfall 003. Non-contact cooling water (NCCW) is discharged to Outfall 001, a 1.1-acre surface absorption system located on site.

Substantial Compliance Determination

Enforcement During Last Permit: A notice of noncompliance (NON) was sent in response to a spill that occurred January 15, 2025. The facility has completed all previously required actions as part of the enforcement process.

After a desktop review of all discharge monitoring reports, land application reports, compliance schedule items, and a site visit on March 12, 2025, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Kenzie Ostien, Wastewater Compliance Engineer on 3/21/2025.

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)
001	Inactive in 2024.	Discharge of non-contact cooling water (NCCW) to a 1.1-acre soil absorption treatment system located on the north side of the factory. NCCW is supplied by an onsite water supply well. Representative grab samples are collected at the sample port following the heat exchanger.
002	40,000 gallons per day in 2024.	Land Application of process wastewaters and non-contact cooling

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
		water on department approved sites. Representative grab samples are collected at the truck as the hauler is emptying tanks.
003	100 gallons per day in 2024.	Discharge of boiler blowdown to an overland flow infiltration system area near the factory. Representative grab samples are collected from blowdown valve in the boiler room before discharge.
005	Inactive in 2024.	Land Application of ultrafiltration (UF) and reverse osmosis (RO) whey permeate on department approved sites. Representative grab samples are collected at the truck as the hauler is emptying tanks.

Permit Requirements

1 Land Treatment – Monitoring and Limitations

1.1 Sample Point Number: 001- NCCW Soil Absorption

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Daily	Total Daily	
Hydraulic Application Rate	Monthly Avg	8,000 gal/ac/day	Monthly	Calculated	
Lead, Total Recoverable		ug/L	Quarterly	Grab	
Arsenic, Total Recoverable		ug/L	Quarterly	Grab	
pH Field		su	Quarterly	Grab	
Solids, Total Dissolved		mg/L	Quarterly	Grab	

1.1.1 Changes from Previous Permit:

Outfall 001 and associated monitoring requirements were added to the proposed permit.

1.1.2 Explanation of Limits and Monitoring Requirements

Outfall 001 not included in previous permit.

Monitoring of Lead and Arsenic required due to elevated sample results. Total dissolved solids and pH added for general sample characterization.

1.2 Sample Point Number: 003- Boiler Blowdown

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Quarterly	Calculated	
Copper, Total Recoverable		ug/L	Annual	Grab	
Sulfate, Total		mg/L	Annual	Grab	
pH Field		su	Annual	Grab	

1.2.1 Changes from Previous Permit:

Annual monitoring of pH added.

Flow rate sample type changed to “Calculated”.

1.2.2 Explanation of Limits and Monitoring Requirements

Annual monitoring of pH added due to elevated sample results and to be consistent with the requirements in General Permit for Non-Contact Cooling Water, or Condensate and Boiler Blowdown WI-0044938-06. pH should be monitored within the fifteen-minute hold time per NR 219.04 Wis. Adm. Code.

Flow rate is calculated using a bucket and stopwatch.

2 Land Application – Industrial Liquid Wastewater (industrial only)

2.1 Sample Point Number: 002- Process Wastewater

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Quarterly	Total Daily	
Solids, Total		mg/L	Quarterly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	Grab	
Chloride		mg/L	Quarterly	Grab	
BOD5, Total		mg/L	Quarterly	Grab	
Phosphorus, Total		mg/L	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total Recoverable		Percent	Quarterly	Grab	

2.1.1 Changes from Previous Permit:

Water Extractable Phosphorus and Total Recoverable Potassium added to the monitoring requirements.

Monitoring frequency increased to quarterly for BOD5 and Phosphorus.

2.1.2 Explanation of Limits and Monitoring Requirements

Water Extractable Phosphorus and Total Recoverable Potassium added for consistency with General Permit for Landspreading of Industrial Liquid Wastes WI-0055867-08.

Monitoring frequency increased to quarterly to aid in sample characterization and consistency between parameters.

2.2 Sample Point Number: 005- U.F. or R.O. Permeate

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Quarterly	Total Daily	
Solids, Total		mg/L	Quarterly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Quarterly	Grab	
Chloride		mg/L	Quarterly	Grab	
BOD5, Total		mg/L	Quarterly	Grab	
Phosphorus, Total		mg/L	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total Recoverable		Percent	Quarterly	Grab	

2.2.1 Changes from Previous Permit:

Water Extractable Phosphorus and Total Recoverable Potassium added to the monitoring requirements.

Monitoring frequency increased to quarterly for BOD5 and Phosphorus.

2.2.2 Explanation of Limits and Monitoring Requirements

Water Extractable Phosphorus and Total Recoverable Potassium added for consistency with General Permit for Landspreading of Industrial Liquid Wastes WI-0055867-08.

Monitoring frequency increased to quarterly to aid in sample characterization and consistency between parameters.

3 Schedules

3.1 Land Treatment Annual Report

Required Action	Due Date
Submit Annual Land Treatment Report #1: Submit the Annual Land Treatment Report by January 31st for the previous calendar year.	01/31/2026
Submit Annual Land Treatment Report #2: Submit the Annual Land Treatment Report by January 31st for the previous calendar year.	01/31/2027
Submit Annual Land Treatment Report #3: Submit the Annual Land Treatment Report by January 31st for the previous calendar year.	01/31/2028
Submit Annual Land Treatment Report #4: Submit the Annual Land Treatment Report by January 31st for the previous calendar year.	01/31/2029
Submit Annual Land Treatment Report #5: Submit the Annual Land Treatment Report by January 31st for the previous calendar year.	01/31/2030

3.2 Land Treatment Management Plan

Required Action	Due Date
Land Treatment Management Plan: Submit a management plan to optimize the land treatment system performance and to demonstrate compliance with Wisconsin Administrative Code NR 214.	06/30/2029

3.2.1 Explanation of Schedule

An up-to-date Land Treatment Management plan is a standard requirement in reissued industrial permits per ch. NR 214, Wis. Adm. Code.

3.3 Land Application Management Plan

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.	06/30/2029

3.3.1 Explanation of Schedule

An up-to-date Land Application Management plan is a standard requirement in reissued industrial permits per ch. NR 214, Wis. Adm. Code.

Prepared By: Zach Watson Hydrogeologist **Date:** 5/9/2025

Revised: 7/9/2025