UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Enforcement and Compliance Assurance Division
Region 2 Water Compliance Branch

Clean Water Act (CWA) Inspection Report

Program: Industrial Individual Permit	**Inspection Type:** Compliance Evaluation Inspection
Permittee Name: North Country Dairy, LLC	**NPDES/ICIS No.:** NY0002763
Inspection Entry Date: March 27th, 2024 **Inspection Entry Time:** 10:00 AM	**Inspection Exit Date:** March 27th, 2024 **Inspection Exit Time:** 3 : 1 5 P M
Facility Inspected: North Country Dairy 22 County Route 52 North Lawrence, NY 12967	**Lat, Long:** 44.805, -74.67489 **NAICS / SIC Code:** 2026, Dairy Products - Fluid Milk
EPA Representative(s): Murray Lantner, Environmental Engineer, Lead Inspector, 212-637-3976, lantner.murray@epa.gov Christina Palmrose-Krieger, Life Scientist, 212-637-4049, palmrosekrieger.christina@epa.gov	
State Representative(s): Brian Boyer, Environmental Program Specialist, 315- 785-2518,NYSDEC Region 6 brian.boyer@dec.ny.gov	
On-Site Facility Representative(s): Matthew Thompson, Environmental Health and Safety Mgr., North Country Dairy, 22 County Rte 52, North Lawrence, NY 12967, mthompson@uncdairy.com, 315-389-5111 x8236	
Responsible Official: Mike Zielinski, Interim Plant Manager, North Country Dairy, 315-389-5111	
Name and Signature of Inspector CHRISTINA PALMROSE-KRIEGER Digitally signed by CHRISTINA PALMROSE-KRIEGER Date: 2024.06.21 10:57:03 -04'00' Christina Palmrose-Krieger, Life Scientist	**Agency/Office/Phone Number** USEPA/ECAD/WCB/212.637.4049
Name & Signature of Management Reviewer Justine Modigliani, P.E. Supervisor, Clean Water Act Compliance Section	**Agency/Office/Phone Number** USEPA/ECAD/WCB/212.637.4268

A. INTRODUCTION

On March 27, 2023, representatives of the United States Environmental Protection Agency ("EPA"), Region 2, along with a representative of the New York State Department of Environmental Conservation ("NYSDEC") Region 6, conducted a Compliance Evaluation Inspection ("CEI" or "Inspection") of North Country Dairy Inc., located at 22 County Route 52 North Lawrence, New York (the "Site" or "Facility"). The objective of this visit was to determine compliance with the Facility's New York Department of Environmental Conservation ("NYDEC")

State Pollutant Discharge Elimination System ("SPDES") Permit number NY0002763 (the "Permit"). The SPDES permit is issued pursuant to Section 301 and 402 of the CWA and accompanying state regulation and law. The current version of this Permit became effective on January 1, 2004, and expired on January 1, 2009, and has been administratively extended since. At the time of the CEI, Facility, the representative stated that North Country Dairy LLC was in the process of renewing their Permit and the NYSDEC had requested information from the Facility to conduct the Permit review/renewal.

This report is based on information supplied by North Country Dairy LLC representatives, direct observations made by the EPA inspectors, records and reports maintained by the permittee and other information including: photographs taken by EPA inspectors, physical evidence collected by the EPA inspectors, measurements taken by EPA inspectors, verbal or written statements made by information supplied by North Country Dairy LLC representatives during or subsequent to the on-site inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the EPA inspectors by North Country Dairy LLC representatives during or subsequent to the on-site Inspection. In addition, information gathered prior to or after the Inspection from a review of EPA, State, and/or public records may be included in this report.

The Facility conducts industrial activity under SIC codes 2026: Dairy Products - Fluid Milk. The Facility makes dairy products including yogurt (traditional yogurt and Greek type yogurt), condensed whey, condensed skim, sour cream, and cream. Secondary operations consist of supporting activities such as vehicle/equipment loading, fueling, and maintenance. The Facility consists of a dairy processing plant including refrigerated storage tanks, refrigeration systems, processing tanks/equipment, and refrigerated trucks ("reefers"). The Clean-In-Place ("CIP") process utilizes acid and caustic (phosphoric acid, nitric acid, hydrochloric acid, sodium hydroxide, as well as other products such as AC103 (Alkaline Cleaner) made by Ecolabs. Tank cleaning wastewater is sent to the Facility's Wastewater Treatment System.

Depending on market conditions whey can be condensed and shipped off site for cattle feed, agricultural or other uses. However, currently the Facility is discharging excess whey into the Wastewater Treatment system. The Plant generates approximately 350,000 pounds of whey per day. At the time of the inspection, all whey was being discharged into the Facility's Wastewater Treatment System tributary to Outfall 001. The Facility representative stated that the Facility plans to condense the excess whey and ship it off-site to be used as an animal feed product the week following the EPA inspection. Based upon a call with the Facility representative, Matthew Thompson on May 21, 2024, starting in April 2024, approximately half of the whey is now being condensed using an evaporator and shipped off-site. There are plans to increase the amount of whey being shipped off-site to 75%, which will further reduce the amount of whey discharged into the wastewater treatment system. The Facility representative stated that whey is acidic and requires some caustic addition prior to treatment. Magnesium hydroxide is fed into a manhole to an in-ground tank, located near the main pump station to adjust the pH of the wastewater higher. The main pump station conveys wastewater to the Facility's wastewater treatment lagoons.

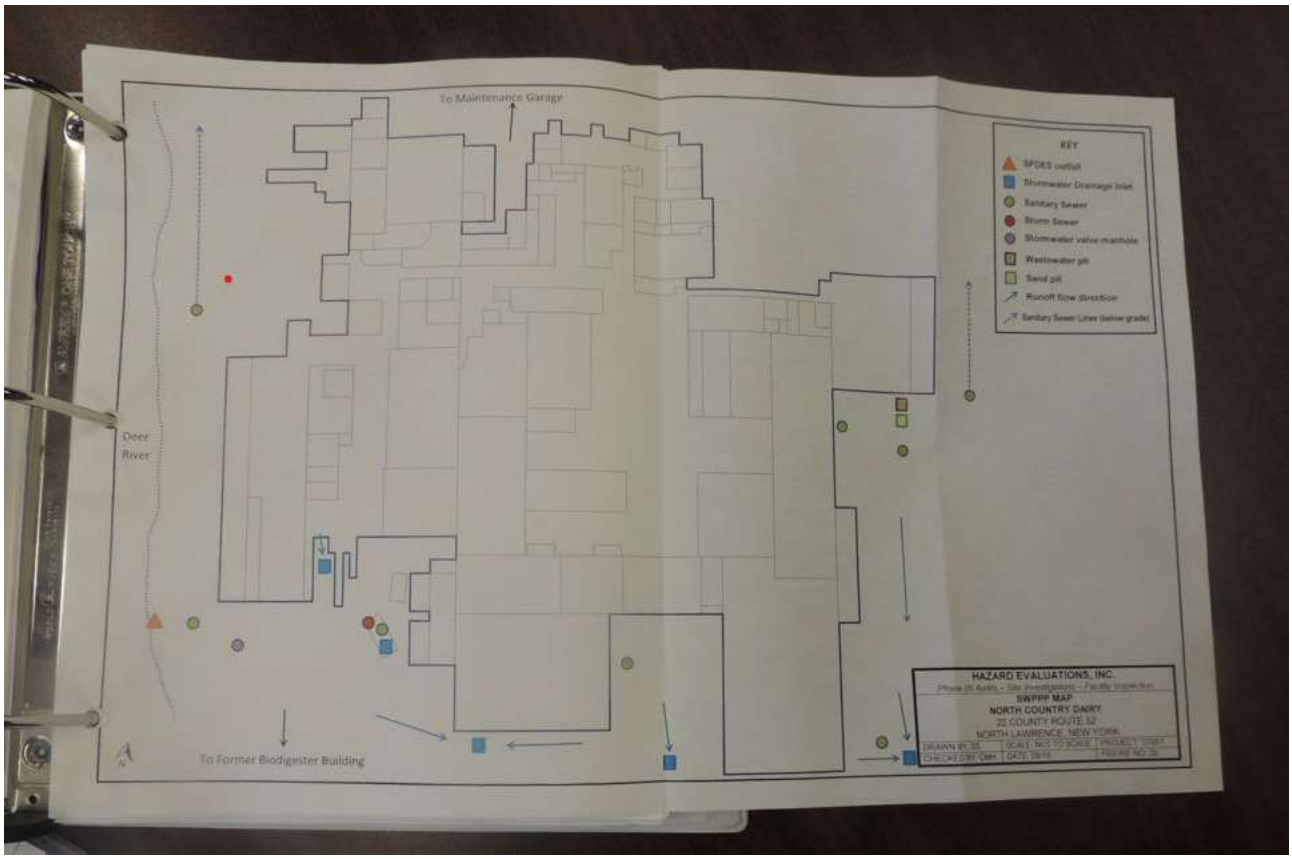
The Wastewater Treatment System consists of a pump station, four (4) aerated lagoons with a combination of surface mixers and subsurface mixers (Nos. 1 to 4), and four (4) lagoons without aeration (1 to 4). The lagoons are all in series, and the wastewater flows through the entire lagoon system prior to flow monitoring. The Facility representative stated that entire lagoon

system has a 120-day retention time. EPA representatives noted that there is no continuous pH monitoring system in place at this time.

Sanitary Wastewater from the plant is discharged to the Town of North Lawrence WWTP. Potable water at the plant comes from wells.

The plant has approximately 114 employees and personnel on staff. It operates 24 hours per day 7 days per week. Based upon the Best Management Practices ("BMP") Plan, the entire Facility is 288 acres and approximately 30% of the Facility is paved or process areas, and the remaining 70% is either the lagoons or vegetated areas.

The Facility is located east of the Deer River and the main portion of the Facility is south of County Route 52. The Facility has one process wastewater outfall (Outfall 001) designated for the discharge of treated process and non-contact cooling water. The Facility also has another outfall, (002) that is permitted to discharge stormwater and artesian well water. Both outfalls discharge into the Deer River which is a tributary of the St. Regis River. The St. Regis River flows into the St. Lawrence River. Outfall 001 is located on the west side of the Facility. Outfall 002 is located on the southwest corner of the Facility (see plant diagram below). Upon arrival, EPA Inspector Murray Lantner presented his credentials to the Facility representative (Matthew Thompson). EPA representative Christina Palmrose-Krieger, and NYSDEC Region 6 representative Brian Boyer, were also in attendance. There was no rainfall during the inspection.



B. POTENTIAL NONCOMPLIANCE ITEMS

1. The Permit requires that the Permittee comply with 6 NYCRR Part 750-2. 6NYCRR Part 750-2.8(a)(2) requires that the permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of the permit. The Special Conditions of the Permit, Industry Best Management Practices ("BMPs"), Paragraph 1, requires that the permittee shall develop, maintain, and implement a BMP Plan to prevent releases of significant amounts of pollutants to the waters of State through plant site runoff; spillage and leaks; sludge or waste disposal; and storm water discharges including, but not limited to, drainage from raw material storage. The Facility had developed a BMP Plan (entitled Stormwater Pollution Prevention Plan - Revised August 2023). At the time of the inspection, the Facility was not being properly operated and maintained and/or was not meeting the terms of the BMP portion of the Permit and its BMP Plan as described below:

    a. The BMP Plan (Section 5.12) specifies that monthly BMP inspections are to be conducted. The Special Conditions – Industry BMPs, paragraph 1, of the Permit, requires that the BMP Plan be implemented. There were no monthly BMP inspection records available for January and February 2024. The Facility representative said that the monthly inspection for March would be conducted the following day. All of the 2023 BMP inspection records were available.

    b. As shown in photos (DSCN3796 ("796") and 797), Attachment 1, there was an uncovered scrap metal dumpster located outside of the maintenance shop/warehouse area. Section 5.2.4, Waste Dumpster/Compactor of the BMP Plan/SWPPP states that dumpster containers used for the storage or refuse will be outfitted with hinged plastic covers or removal of tarps. Following the inspection, on April 30, 2024, EPA received an email and photo showing that a tarp had been placed over the dumpster (See Attachment 2 with email submittals following the inspection)

    c. As shown in photos 827 and 828, Att. 1, there was sand piled up near the trench drain. As shown in photos 833 and 834 there was a sand pile at the trench drain in the milk receiving area that is tributary to Outfall 002; As shown in photo 836 there was sand accumulated around the storm drain in the milk receiving area. Section 5.1.2 of the BMP Plan states that storm sewer inlets and associated piping will be inspected and maintained on a monthly basis to prevent any build up of sediment or other conditions that could lead to a backup of the in the wastewater holding UST. Based on an email sent to EPA following the inspection, by NCD, on April 30, 2024 (Att. 2) the catch basins at the site were cleaned using a Vactor truck, shovels, etc.

    d. There was powdered material outside of dry powder dumpster (Photo 820, Att. 1), stormwater from the area around the dry powder dumpster flows into catch basins tributary to Outfall 002. Section 5.2.4 of the BMP Plan states that, "[A]ny spilled or mishandled wastes will be immediately cleaned up." Please verify that powdered material has been cleaned and will be kept clean going forward.

e. As shown in photo 821 (Att. 1) there appears to be some magnesium hydroxide powder around the manhole to the tank where magnesium hydroxide is added. Please verify that this manhole area is kept clean and ensure that magnesium hydroxide does not reach stormwater outfall 002.

f. As shown in photo 846, Att. 1, pigs that were used to clean the force main were left outside near the aerated lagoons. These pigs will not be used again and must be properly disposed of.

g. As shown in photos 853, 854, and 855 there are old hoses and material stored near the effluent channel from the aerated lagoons and near the aerated lagoons that must be properly disposed of or stored. As described in NCD's April 30, 2024, email and photos (Att. 2) the hoses and the material have been removed.

h. As shown in photos 856 and 865 (Att. 1) there were old metal drums in the lagoons that must be removed. NCD's April 30, 2024, email and photos stated that the drum in lagoon 3 was removed and included photos of such.

i. As shown in photos 859 to 872 there were breaches in the berm along the northern side of Lagoons 2 and 3 and there was and had been an overflow that could reach the Deer River via a network of channels and streams as shown in the GIS Map below. Discharges via the breaches do not flow through the permitted monitoring point, Outfall 001, and are unauthorized. Discharges from point sources to a "navigable" water without a SPDES Permit are not in conformance with Section 301 and 402 of the Clean Water Act.

   The dividing berm between Lagoons 3 and 4 also had evidence of overland flow on the berm, and an erosion pathway formed that would lead to short circuiting of the berm and demonstrates improper operation and maintenance.

   The Facility representative said that NCD does conduct routine walks on the old rail bed (north of Lagoons 2,3, and 4) to inspect the berm integrity, but it appears that routine inspections had not taken place recently. The Facility must conduct routine inspections of the lagoon berms, make logs of the inspections, and include this lagoon inspection provision in the Facility's Written Procedures for Operation and Maintenance (Per the Permit which cites 6 NYCRR Part 750-2.8(a)(2)(ii)) and/or its BMP Plan in accordance with Special Condition 2 of the Permit.

   Based on the April 30, 2024, email from NCD (Att. 2) a Purchase Order for $16,408 has been approved for the restoration of the lagoon berms. A May 29, 2024, email from Mr. Matthew Thompson to Mr. Lantner of EPA stated that the contractor had to wait until the area was drier, but as of the 5/29/24 email, the lagoon berm repair project was said to be nearly completed and NCD would provide photos to EPA upon completion.

j. As shown in photos 841, 842, 862, 865, 866, 871, 872 (Att. 1) and (DSCN2558, DSCN2561, DSCN2564, DSCN2569, DSCN2570, DSCN2571 (Att. 1.a), the water levels in the lagoons in some instances were just inches below the top of the berm. At the time of the inspection, the lagoon 4 outlet valve was said to be fully opened so that lagoon levels could be lowered. Please provide or develop the written procedures for ensuring adequate freeboard in the lagoons as required by 6 NYCRR Part 750-2.8(a)(2)(ii).

2. Review of EPA's Enforcement and Compliance History Online (ECHO) database identified the following two self reported effluent exceedances over the period May 2019 to March 2024.

Table North Country Dairy Reported Permit Exceedance (May 2019 through March 2024)

Monitoring Period	Parameter Description	Type	Value Units	Limit Value	DMR Value	Percent Exceedance
January 2021	BOD, 5-day, 20 deg. C	Mo Avg	lbs/d	430	530	23
February 2021	BOD, 5-day, 20 deg. C	Mo Avg	lbs/d	430	537	25

C. AREAS OF CONCERN

1. 6 NYCCRR Part 703.2 Narrative Water Quality Standards, for phosphorus and nitrogen in Class C waters, states that there shall be "none in amounts that will result in growths of algae, weeds, slimes that will impair the water for their best usages." As shown in photographs 938

to 941 in Attachment 1 and observed during the inspection there is white growth on the bottom of the river in the visible plume emanating from North Country Dairy and extending downstream.

Phosphorus and nitrogen	AA, A, B, C, D, SA, SB, SC, I, SD, A-Special	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.

Review of the Quarterly Phosphorus monitoring data provided by the Facility in EPA's Enforcement and Compliance History (ECHO) online database for the past 5 years shows a wide fluctuation in effluent phosphorus concentrations with concentrations up to 20 mg/L and discharges of phosphorus up to 96 pounds per day. Average phosphorus concentrations during this period were 23 mg/L and loads Also shown in the graphs below are reported Ammonia, BOD as well as phosphorus loads over the past 5 years.

Figure 1 - North Country Dairy Outfall 001, self-reported Quarterly Total Phosphorus Monitoring (mg/l and pounds per day) from EPA ECHO 3rd quarter 2019 to first quarter 2024

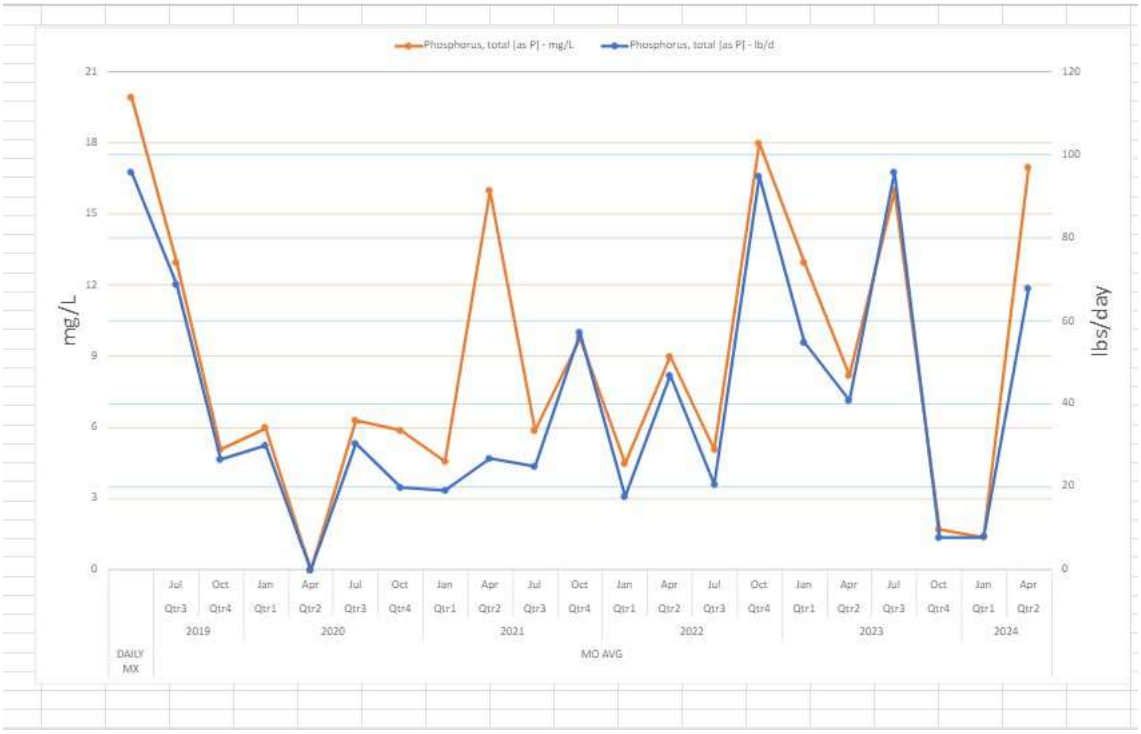


Figure 2 – Daily Maximum BOD_5, Ammonia and Phosphorus loads May 2019 to March 2024

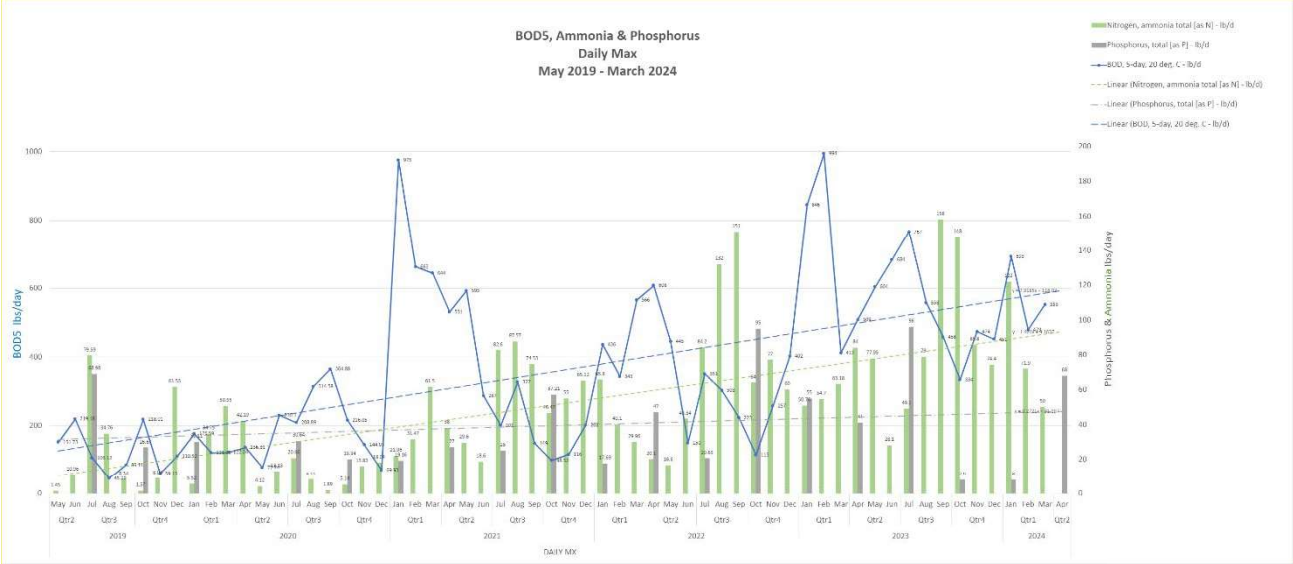
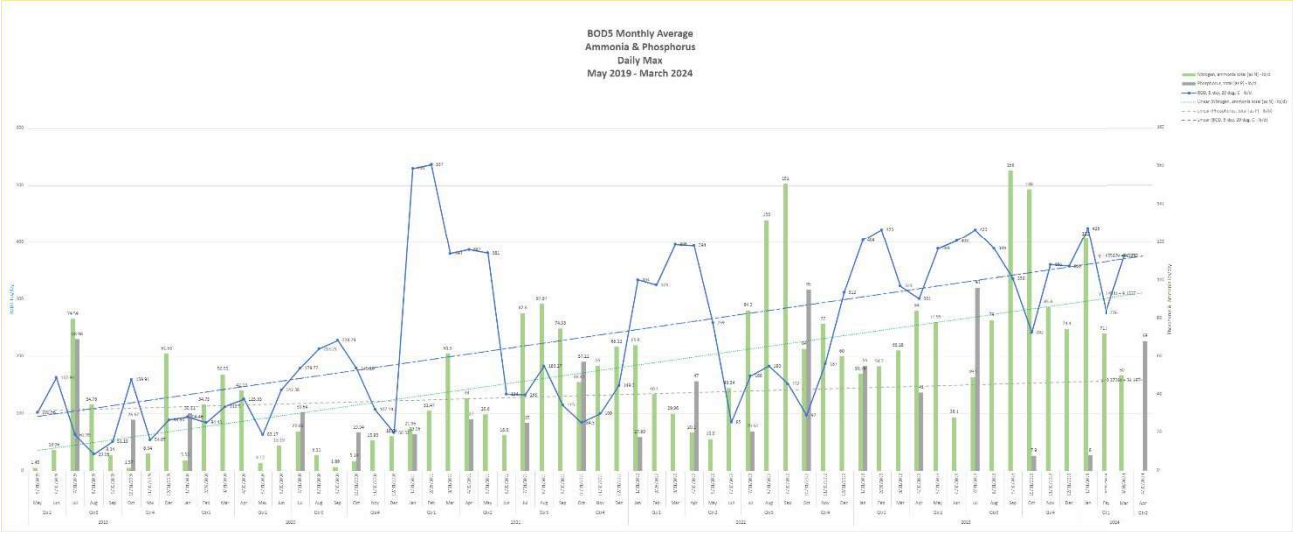


Figure 3 – Monthly Average BOD_5, and daily maximum Ammonia and Phosphorus loads May 2019 to March 2024



2. As shown in photo 807, Att. 1 the discharge from Outfall 001 is foamy, but dissipated away from the outfall.

3. As shown in photos 800, 801, in Attachment 1 there are oil drums being stored inside the maintenance shop/warehouse building east of Factory Street, north of the main Facility. The oil drums are being stored without secondary containment inside the building. As shown in photos 802 and 803, Att. 1, a gear oil drum was left outside and uncovered. As shown in photos 788 ad 789, Attachment 1, there were small containers with petroleum products

stored on, and also on the side of spill totes. Ensure that all containers on and over the spill totes. As reported in the NCD's April 30, 2024, email to EPA and photos (Att. 2) the drum that was stored outside was removed and containers inside the warehouse were placed on spill totes.

Please verify that the Facility's Spill Prevention Control and Countermeasures ("SPCC") Plan addresses whether secondary containment is needed in the drums in the warehouse building and ensure that the Petroleum storage is conducted in accordance with 40 CFR 112 and the SPCC Plan.

4. The storm drain located in between facility buildings had many cigarette buts in it. Catch basins should be cleaned routinely and there must be training for employees per the Best Management Practices plan such that garbage is not placed into storm drains.

5. As shown in photos 815 and 816 in Attachment 1, propylene glycol barrels stored outside on the ground near stormwater outfall (002). As reported in the NCD's April 30, 2024, email to EPA and photos (Att. 2) the glycol drums have been removed from this area.

6. As shown in photo 804 (Att. 1), there was a seal leak in the cooling water (groundwater) pump that feeds into/cools the Outfall 001 flow.

7. As shown in photo 835, Att. 1, the compactor for yogurt containers may be above a storm drain. EPA requests that Facility representatives indicate if there is a storm drain below the dumpster and which outfall it would lead to if there is one and describe BMPs that are in place for this dumpster.

8. The Outfall 001 effluent includes the process wastewater flow from the lagoons, non-contact cooling water and additional groundwater (artesian well) flow for cooling (the Permit does not state artesian well discharge via outfall 001, but there was said to be some of this artesian well water discharging from Outfall 001 and also at 002). At the time of the inspection the flow was approximately 0.8692 MGD per the continuous flow monitor (Photo 812, Att. 1 and DSCN2463, Att. 1.a). A 90° V Notch weir is used with a bubbler (and compressor) to measure the height of the water at the weir. The flow measurement device was last calibrated in June 2023. Photos 810 and 814 (Att. 1) depict the water level at the 90°V notch weir almost above the angular section of the weir and nearly into the rectangular portion of the weir. The Facility explained that the lagoon valves were all the way open and that they likely could not exceed the depth where the V Notch Weir becomes a V Notch plus a rectangular weir. Nonetheless, EPA was concerned that the effluent flow meter at Outfall 001 may not be large enough to capture the range of expected flow through the weir.

9. There was no thermometer in the composite sampling refrigerator for Outfall 001. EPA recommends placing a thermometer in beaker or bottle of water and logging the composite sampling refrigerator temperature on sample days to ensure compliance with the Permit and 40 CFR §136 which specifies that samples such as BOD, phosphorus, ammonia, etc. are kept at or below 6°C.

10. The pH 10 buffer bottle used for calibrating the pH meter used for NPDES compliance had an

expiration date of August 2023. The Facility representative said that the pH meter is calibrated approximately every 2 weeks but said that the pH was typically in the 4 to 7 range and typically calibrated using the 4 and 7 buffer. The Facility must ensure that pH buffers are not expired.

11. Trucks were said to be washed in the truck bay. Please verify that truck washwater is discharged to the lagoon system and Outfall 001 and not Outfall 002.

12. As shown in photo 823 and 824 the truck unloading area was said to have stormwater catch basins tributary to stormwater outfall 002. They said that catch basins are covered with mats during loading/unloading operations to prevent spills to Outfall 002.

13. Blower No.3 inside the blower building at the aerated lagoons was out of service for approximately 2 weeks. The Facility representative said that they had called for service and area awaiting the repair.

14. Some of the Aeration piping in Lagoons 1 / 2 was broken, such that it caused uneven bubbling in the lagoon. (See Photos of Lagoon 1 / 2 in photos 848 to 850 Attachment 1). The Facility said that the lagoon aeration piping would be repaired.

15. In June 2023, EPA received photos of a red discharge from Outfall 001 as well as photos of white growth on rocks downstream of the effluent from NYSDEC (Attachment 3). At the time of the CEI Facility representatives had containers of a biological control on-site called Lake Relief to control excessive algae growth – which was used to address the red discharge. The lagoons are periodically seeded with Lake Relief. The Facility has also installed and ultrasonic device in the pond system for algae control as well. However, there was still a significant amount of white growth on rocks along the eastern bank of the Deer River and extending downstream (north) past the bridge on Country Route 52.

16. The SPDES Permit Fact sheet dated 10/31/05 indicated that there is an 18:1 dilution of the effluent in the Deer River, however, based on visual observations of the outfall during the inspection which enters the river flowing down into eastern side of the river, it appears that the plume hugs the east bank extending downstream of the route 52 bridge.

17. Training records, related to stormwater/BMPs, were said to be maintained in a program called Alchemy. Review of this program did show employees with stormwater training. One of the employees had taken stormwater pollution plan training in 2015. Please ensure that all employee training for the BMP Plan and wastewater treatment, etc. is up to date.

18. The Facility has continuous temperature probes at the effluent. Please provide calibration records and the calibration frequency for the device(s) used for effluent temperature measurements.

19. EPA representatives gathered laboratory reports, daily logs and spreadsheets for December 2023 and January 2024 during and following the inspection and compared this data with the Facility's discharge monitoring reports ("DMRs") downloaded from EPA's

Enforcement and Compliance History Online ("ECHO") database. This review identified the following apparent discrepancies.

	Data Entered into DMR	Flow Rate Represented in Facility Logs
Jan. 2024, Daily Maximum Flow	0.7164 MGD	0.7603 MGD
Jan. 2024, Monthly Average Flow	0.6522 MGD	0.6631 MGD

No other discrepancies were found in lab report data for the other monitored parameters at Outfall 001 for this monitoring period.

C. Other inspection findings

1. The Facility has an emergency generator that can run the ammonia cooling system and the wastewater pump. The emergency generator cannot run the aerators in the wastewater lagoon system.
2. The composite sampler at Outfall 001 is based on time and is not flow proportional. The 24-hour composite sample runs from Monday at 9 AM into Tuesday morning.
3. Outfall 001 temperature is monitored continuously and recorded on a chart recorder. At the time of the inspection the wastewater flow from the lagoon was 42.9° F and the effluent temperature (which includes non-contact cooling water and groundwater in addition to the lagoon effluent) was 44.2°F (See Photo 813, Att. 1).
4. Stormwater Outfall 002 has a valve on it and can be closed if there is a spill to prevent the discharge to the Deer River (See Photos 317 and 318, Att.1). At the truck loading/unloading area, spill mats were said to be placed on the catch basin during loading/unloading.
5. Trucks were said not be maintained on site. The Facility operates a fuel truck to fuel the reefer (refrigerated) trailers. The BMP Plan, Section 5.1.3 contains spill prevention and response procedures.
6. Drains inside the milk loading bay trench drain were said to flow to the wastewater treatment system and ultimately to Outfall 001.
7. The Best Management Practices Plan was available on site.
8. The Settleable Solids test is conduced on-site for 45 minutes, then solids stirred off the side of the Imhoff cone and then they wait another 15 minutes to read result, which is proper.
9. Lab samples are sent to Life Science lab in a cooler with ice packs. Lab sample bottles are pre-preserved. There were bottles with sulfuric acid for ammonia and phosphorus, unpreserved bottles for BOD and TSS. Review of the lab reports for December 2023 and January 2024 indicated that the 40 CFR part 136 test methods for BOD, TSS, Phosphorus, and Ammonia were being used at the Facility.
10. As shown in photos 825 and 826, Att. 1, there is an empty drum storage area that has an accumulation of empty drums. As shown in Attachment 2, the Facility's April 1, 2024, email identified that drums had either been removed or the drums were placed in a storage area.
11. As shown in photo 830, Att. 1, there was a covered waste dumpster on-site.
12. The main pump station that sends wastewater to the lagoons has a flow meter that read 516

gpm (0.743 MGD). All wastewater pumps were said to be operational.

13. The sludge accumulation in the aerated lagoons was said to be measured annually using a boat with a sludge judge. Sludge removal in the aerated lagoons was last conducted in 2017. The Facility representatives explained that if the sludge depth exceeds 2' the aerated lagoons would be cleaned. Sludge removal is done with filter bags and piping in an area near lagoon 3 as shown in photo 852 (Att. 1). The sludge was said to be land applied. Sludge removal was said not to be done in the unaerated lagoons.

D. CLOSING

At the conclusion of the CEI, EPA held a closing conference with Mr. Matthew Thompson to discuss the preliminary findings and observations of the CEI.

ATTACHMENTS

Attachment 1 - Photograph Log – EPA Region 2, Murray Lantner
Attachment 1.a - Photograph Log – EPA Region 2, Murray Lantner
Attachment 2 - Documentation of corrective actions submitted by NCD, taken following the inspection.
Attachment 3 – June 1, 2023, citizen/DEC email
Attachment 4 – North Country Dairy 2006 Permit Application