OhioEPA
State of Ohio Environmental Protection Agency
Northwest District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

Re: Ashland County
Cinnamon Lake
NPDES Permit

November 14, 2007

Bob Adams, Utility Manager
Cinnamon Lake Utilities Association
1443 Laurel Drive
West Salem, Ohio 44287

Dear Mr. Adams,

On October 25, 2007, an inspection was made of the wastewater treatment facilities serving the Cinnamon Lake subdivision located at 1443 Laurel Drive, West Salem, Ashland County. At the time of the inspection all major treatment units appeared to be operating normally. You were present during the inspection to answer any questions that I had regarding the plant operations.

It was noted that the influent flow splitter box was beginning to deteriorate. You mentioned that work to repair the box has already been considered and will be completed in the near future. All of the clarifier tanks have now been fitted with Geyser pumps on the sludge return lines. The older aeration plant clarifier tanks were full of floating sludge. You mentioned that these tanks have no skimmers, which makes cleaning of the clarifier surface difficult. Installation of skimmers should be a priority.

It was also observed that the baffles within the chlorine tank have become severely deteriorated and are no longer functioning. The majority of the flow is passing right through the contact tank and the proper detention time is not being achieved. This is most likely contributing to the fecal coliform violations on the monthly reports. The baffles in the tank should be repaired before next year's disinfection season.

Your current NPDES permit includes a compliance schedule regarding the completion of work identified in the 2004 Inflow and Infiltration (I/I) Study and Sewer Evaluation. The study divided the necessary work into five phases, with one phase to be completed each year from October 2005 through October 2010. Phase two, to be completed by October 2007, includes work in subzone 2B. Our office is awaiting a report on the work completed for this year. The report should identify the results of all investigations, any problems identified, and any repairs that were made to the system.

A review of the facility's monthly operating reports from the months of March through September 2007 has shown several ***violations*** of the conditions of your NPDES permit. A summary of these violations is included on a separate sheet. Improved compliance at the treatment plant is needed in order to prevent enforcement action.

You mentioned that Mr. Mike Witmer of your staff will be taking over duties at the wastewater plant. This will allow for more detailed oversite of the treatment plant operations and maintenance. It is promising to see that staff deficiencies have been identified and that steps are being taken to provide the appropriate amount of qualified personnel.

If you have any questions please a call me at 419-373-3070.

Sincerely,

Walter Ariss

Walter Ariss
Environmental Specialist II
Division of Surface Water

/lb

Enclosure

pc: NWDO-DSW file

OHIO ENVIRONMENTAL PROTECTION AGENCY

OPERATION AND MAINTENANCE INSPECTION
WWTP'S LESS THAN 25,000 GPD

NPDES Permit No. 2PR00009

Facility Name Cinnamon Lake Expiration Date 3/31/2010

Facility Address Cinnamon Dr Date 10/25/07 Time 11:15 am/pm

City West Salem County Ashland Township _____

Name and Address of Owner Cinnamon Lake

Person Contacted Bob Adams Owner Phone _____

Flow: Design 150,000 GPD Present 50000-250000 GPD (metered - estimated)

Trib. Pop. _____ (actual - estimated) Weather at time of inspection: Temp 65 cloudy

OEPA Personnel Walter Ariss District NWDO

1. Plant Effluent - Mark Severity No.

No.	Severity Description	No.	Turbidity	No.	Odor	No.	Color
0	None	✓	Clear	✓	None	✓	Colorless
1	Mild						
2	Moderate		Light Solids		Musty		Grey
3	Serious						
4	Extreme		Heavy Solids		Septic		Black

2. Effect of effluent on Receiving Stream Name: Muddy Fork Mohican – not observed

No.	Severity Description	No.	Turbidity	No.	Odor	No.	Color
0	None		Clear		None		Colorless
1	Mild						
2	Moderate		Light Solids		Musty		Grey
3	Serious						
4	Extreme		Heavy Solids		Septic		Black

3. a. Plant has _____ excellent ✓ good _____ fair _____ poor operation
b. Plant has _____ excellent ✓ good _____ fair _____ poor maintenance
c. Sand filters have _____ excellent _____ ✓ good _____ fair _____ poor maintenance

d. Not operating at expected efficiency due to:

(1) ✓ hydraulic overload
(2) _____ organic/ solids overload
(3) _____ personnel inefficiency
(4) _____ equipment failure
(5) _____ wastes
(6) _____

Disinfection: (Required May 1 thru Oct.31.)

IN	OUT	
____	✓	Chlorination ~~Tablets~~ liquid
____	____	Dechlorination Tablets
____	____	U.V.

	Yes	No				
4.	____	✓	Compliance with NPDES Permit			
				Y	N	Parameters:
			Periodic Violations	✓	____	NH_3 – limit
			Chronic Violations	____	____	_____
5.	✓	____	Adequate plant safety			
6.	____	✓	Operation and Maintenance Service	Name _____		

Frequency of Visits _____

Facility Name: Cinnamon Lake

Process	# Units	Unit	If Needed - Description and Comments
Preliminary	[redacted]	Trash Trap	Pumping Frequency: ?
		Grease Trap	Pumping Frequency:
	X	Bar Screen	okay
		Comminutor	
		Flow Equalization	
Aeration Equipment	X	Plant Timer ___ Y X N Motor/ Blower Unit running	Cycle Time:
Secondary Treatment	X	Aeration Tank	Color: okay Adequate Aeration: Y X N___
Final Settling	X	Clarifier	old plant clarifiers have heavy sludge floating on surface — need skimmers installed
	X	Sludge Return	In X Out ___
	X	Surface Skimmer	In X Out ___ or new plant
		Fixed Media Clarifier	
Tertiary Treatment	X	Surface Sand Filter	1 filter ~~Feeder~~ layer of sludge drying
	X	Polishing Pond	okay
		Other	
Disinfection	X	Chlorine ~~Feeder~~ Liquid Feeder	not in service bubbles in chlorine tank need repaired
		Dechlorination Tube Feeder	
		Ultraviolet (UV)	
Flow Metering		Elapsed Pump Time	
	X	Recorder (continuous total)	just installed new unit
Pumps	X	Raw Wastewater (type)	okay
	X	Sand Filter Effluent Dosing	okay
Sludge Handling	X	Aerated Storage Tank	okay
	X	Sludge Drying Bed	need to take out
Sludge Disposal		Municipal POTW	
	X	Landfill	
		Land Application	
Advanced Treatment		Post Aeration	
		Spray Irrigation	
		Other	

NPDES permit limit violations
March 2007 through September 2007

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2007	001	00530	Total Suspended Solids	1D Qty	10.2	15.0528	3/2/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3	30D Conc	2	3.135	5/1/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3	30D Qty	1.1	1.35071	5/1/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	3.75	5/17/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	4.59	5/24/2007
May 2007	001	00610	Nitrogen, Ammonia (NH3	1D Qty	1.7	1.77206	5/24/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3	30D Conc	2	3.825	6/1/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3	30D Qty	1.1	1.58332	6/1/2007
June 2007	001	31616	Fecal Coliform	1D Conc	2000	3166.	6/5/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3	1D Qty	1.7	3.84083	6/7/2007
June 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	8.25	6/7/2007
June 2007	001	50060	Chlorine, Total Residu	1D Conc	0.038	.05	6/11/2007
July 2007	001	50060	Chlorine, Total Residu	1D Conc	0.038	.09	7/11/2007
July 2007	001	50060	Chlorine, Total Residu	1D Conc	0.038	.06	7/12/2007
July 2007	001	50060	Chlorine, Total Residu	1D Conc	0.038	.05	7/13/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	30D Conc	2	7.8075	9/1/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	30D Qty	1.1	1.87985	9/1/2007
September 2007	001	31616	Fecal Coliform	30D Conc	1000	3870.88	9/1/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	5.05	9/6/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	21600.	9/7/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	9.25	9/13/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Qty	1.7	1.78557	9/13/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	12333.	9/13/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	8600.	9/14/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	4300.	9/18/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	4900.	9/19/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	9.35	9/20/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Qty	1.7	2.4065	9/20/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	2766.	9/20/2007
September 2007	001	31616	Fecal Coliform	1D Conc	2000	3166.	9/21/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Conc	3	7.58	9/27/2007
September 2007	001	00610	Nitrogen, Ammonia (NH3	1D Qty	1.7	2.18046	9/27/2007