



**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director



1PT0007720091223

CLERMONT · CLERMONT NE LOCAL SCHOOLS WWTP

WARE, RONALD

2009/12/23



State of Ohio Environmental Protection Agency

Southwest District Office

401 E. Fifth St.
Dayton, Ohio 45402

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

December 23, 2009

Clermont Northeast Local Schools
Attention: Neil Leist, Superintendent
2792 U.S. Route 50
Batavia, Ohio 45103

**Re: Clermont Northeast Local Schools WWTP, U.S. Route 50, Clermont County
Follow-up Reconnaissance Inspection**

Dear Mr. Leist:

On November 24, 2009, I conducted a follow-up Reconnaissance Inspection of the wastewater treatment plant that serves the above referenced facility in Stonelick Township, Clermont County (NPDES Permit No. 1PT00077, OH0118311). Dennis Feichtner and Dan Wuebbeler with National Wastewater Industries, the contract operator for this facility, were present during the inspection. The purpose of this inspection was to evaluate plant operation and performance. A copy of the inspection report is enclosed.

All components of the treatment plant were operational, and the effluent appeared to be clear and free of solids. However, the following items were noted during my inspection:

- The final effluent sampling procedures do not conform to the sampling methods described in the treatment plant's NPDES permit.
- There is confusion on which party or individual is responsible for monitoring total chlorine residual in the treatment plant's final effluent during the summer months.
- There is uncertainty as to whether the Operator Certification requirements contained in the treatment plant's NPDES permit are being met.
- The treatment plant's flow meter was not operational at the time of the inspection.
- There was not a permanent marker at the treatment plant's outfall to the receiving stream as required by the treatment plant's NPDES permit.

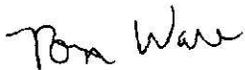


Clermont Northeast Local Schools
December 23, 2009
Page 2

This wastewater treatment plant has had violations of the final effluent limitations in its NPDES permit over the past ten months. Please provide this office with a written explanation of the measures that will be taken to correct the problems noted at this facility by February 5, 2009.

If you have any questions regarding this report, please contact me at (937) 285 - 6098.

Sincerely,



Ron Ware
Ohio EPA - Division of Surface Water
Southwest District Office

C: Hank Henke, National Wastewater Industries, Inc.
Clermont County General Health District

RWbp



State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report
Semi-Public Sewage Disposal Inspection Form

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PT00077*CD	OH0118311	11/24/2009	R	S	2

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Clermont Northeast Local Schools 2792 U.S. Route 50 Clermont County, Stonelick Township	11:05 AM	6/1/2009
	Exit Time	Permit Expiration Date
	11:35 AM	9/31/2014
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Dennis Feichtner, Class III Wastewater Dan Wuebbeler	(513) 367 - 5969	
Name(s), Address and Title(s) of Operator of Record	Phone Number(s)	
Dennis Feichtner, Class III Wastewater	(513) 367 - 5969	
Name, Address and Title of Responsible Official	Phone Number	
Clermont Northeast Local Schools Attn: Neil Leist, Superintendent 2792 U.S. Route 50 Batavia, Ohio 45103	(513) 625 - 5478	

Ohio EPA Inspector	Ohio EPA Reviewer
Ron Ware Division of Surface Water Southwest District Office	
Date	

Average Daily Design Flow:	40,000 Gallons/Day
Plant Serves:	1200 Students
Average Daily Flow: (Period of Review):	2,960 Gallons/Day (November 2009)
Method of flow monitoring:	Ultrasonic level sensor & weir (currently out of order)
Type of alarms for plant:	None

Pretreatment

Type of Pretreatment: **Trash Trap**
 Does the Trash Trap need pumped: **Unknown**
 Maintenance of pretreatment components is: **Fair**

Comments/Status:

Maintenance of the trash trap should be scheduled and documented.

**Secondary Treatment
(Aeration)**

Color of sludge: **Light Brown**
 Quality of Sludge: **Thin**
 Foam: **Light (white)**
 Odor: **No objectionable odor present**

	Yes	No		Yes	No
Aeration is taking place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is septic	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blowers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blowers are on a timer	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Skimmers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plant is flooded	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Diffusers are operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Grating is present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sludge return is operating	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Maintenance of aerating equipment is...**Fair**

Comments/Status:

**Secondary Treatment
(Settling)**

Clarity: **Cloudy**
 Condition of Weir: **Algae/solids build up**
 Weir is level: **Yes**
 Effluent in weir: **Clear**
 Clarifier walls need to be scraped: **Yes**

Overall maintenance of settling components is: **Fair**

Comments/Status:

The clarifier was turbid even at the surface.

Tertiary Treatment

	Yes	No		Yes	No
Surface sand Filters: Slow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Subsurface	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	Beds alternated	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are filters ponding/flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Beds raked	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sand filters overgrown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
UV present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dechlorination present	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overall maintenance of components is: **Fair**

Comments/Status:

Sludge Handling/Storage/Disposal

Hauler name: **NWI**
 Sludge wasted from: **Sludge holding tank**
 Sludge drying beds: **Yes** Sludge holding tank: **Yes**

Overall maintenance of components is: **Fair**

Comments/Status:

There are no records of when waste sludge was last removed from the plant site.

Plant Discharge

Discharge point is a: **Road ditch along U.S. Rte 50**
 Name of discharge point: **Patterson Run**
 Discharge is visible: **Yes** Quality of Effluent: **Clear**

Comments/Status:

Inspection Findings
 (Items for Correction in Bold Type)

EFFLUENT LIMIT VIOLATIONS
 (Period of Review: March 2009 – September 2009)

Reporting Period	Parameter	Limit Type	Limit	Reported Value
February 2009	Total Suspended Solids	7 day avg. concentration	18 mg/l	25. mg/l
March 2009	Nitrogen, Ammonia (NH ₃)	30 day avg. concentration	1.0 mg/l	35.525 mg/l
March 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	42.5 mg/l
March 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	35.4 mg/l
March 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	29.8 mg/l
March 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	34.4 mg/l
April 2009	Nitrogen, Ammonia (NH ₃)	30 day avg. concentration	1.0 mg/l	36.166 mg/l
April 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	31. mg/l
April 2009	Nitrogen, Ammonia (NH ₃)	7 day avg. concentration	1.5 mg/l	13.8 mg/l
May 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.2 mg/l
June 2009	Total Suspended Solids	7 day avg. concentration	18 mg/l	26. mg/l
June 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.07 mg/l
June 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.06 mg/l
June 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	0 mg/l
July 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
July 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.23 mg/l
July 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	4. mg/l
July 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
July 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.1 mg/l
July 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
August 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.1 mg/l
August 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.1 mg/l
August 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
August 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.1 mg/l
August 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.1 mg/l

Reporting Period	Parameter	Limit Type	Limit	Reported Value
September 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
September 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5.6 mg/l
September 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	3. mg/l
September 2009	Chlorine, Total Residual	1 day max. concentration	0.019 mg/l	.05 mg/l
September 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	5. mg/l
October 2009	Dissolved Oxygen	1 day min. concentration	6.0 mg/l	4.6 mg/l
October 2009	pH	1 day min. concentration	6.5 S.U.	6.4 S.U.

Please be advised that failure to comply with the effluent limitations or to satisfy the monitoring or reporting requirements of your NPDES Permit may be cause for enforcement action pursuant to the Ohio Revised Code Chapter 6111.

At the time of the inspection, the mixed liquor in the aeration basin was dark brown in color with a small amount of white foam. The mixed liquor return was also dark brown in color. The treated water in the settling tank was cloudy.

Effluent Sampling

During the inspection, it was noted that method used for sampling the final effluent from the treatment plant consisted of the following procedure: the school superintendent or a representative for the school grabs a sample on the morning of the day that Mr. Feichtner is scheduled to make a visit to the plant; the sample is left in an open container on the edge of the sand filter dosing/chlorine contact tank; Mr. Feichtner grabs a second sample during his visit; and combines the two grab samples into one container. The samples bottles that Mr. Feichtner was using for consolidating the two separate grab samples did not appear to be labeled. The "composited" sample collected by Mr. Feichtner is then analyzed for parameters identified in the treatment plant's NPDES permit (such as CBOD₅, Total Suspended Solids, and Ammonia – Nitrogen).

Please be advised that the required sampling method for these three parameters (CBOD₅, Total Suspended Solids, and Ammonia – Nitrogen) is composite sampling, and that the type of composite sampling to be used for these parameters is described in Paragraph E on page 4 of the treatment plant's NPDES permit. This description reads as follows:

"Composite samples shall be comprised of at least three grab samples proportionate in volume to the sewage flow rate at the time of sampling and collected at intervals of at least 30 minutes, but not more than 2 hours, during the period that the plant is staffed on each day for sampling. Such samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's overall performance."

The effluent sampling procedure currently being used for the school district's treatment plant does not conform to the sampling method described in the plant's NPDES permit and is therefore unacceptable. In addition, the collected effluent samples need to be refrigerated to 4° C +/- 2° in order to preserve them prior to lab analysis. Enclosed is a copy of general lab criteria that Ohio EPA has developed to define minimum standards for lab analytical equipment. The last two pages of this guidance document list sample preservation and holding time standards. These sample preservation and holding time standards need to be followed to assure that the analytical results generated from these samples are accurate.

The school district will need to change the effluent sampling procedure for its treatment plant to conform to the sampling methods described in the treatment plant's NPDES permit. The school district will also need to make provisions to ensure that the proper sample preservation and holding time standards are being met during future sampling events.

In addition, for quality assurance purposes, the school district should make arrangements to have split effluent samples sent to another laboratory for two months to validate its reported data. Ohio EPA is also requesting that the current laboratory being used for analysis provide 6 months worth of bench sheets to Ohio EPA Southwest District Office no later than February 5, 2009.

Total Residual Chlorine Testing

The NPDES permit for the school district's wastewater treatment plant requires that the total chlorine residual in the plant's final effluent not exceed 0.019 mg/l and that this parameter be monitored daily (or when the plant is normally staffed). A review of the monthly reporting data for the past ten months shows that this limitation for total chlorine residual (0.019 mg/l) was exceeded on ten occasions, and that the plant's effluent was not monitored for total chlorine residual over the entire month of October 2009. Please be advised that monitoring of the treatment plant's final effluent for total chlorine residual is required for the summer months as defined in Part III of the plant's NPDES permit (May 1 through October 31). During the inspection Mr. Feichtner indicated that it was his understanding that the school district was responsible for monitoring the treatment plant's final effluent for total chlorine residual, and that he did not know if the school district had a measurement device for total chlorine residual.

Please provide the Ohio EPA Southwest District Office with the following information no later than February 5, 2009:

- The party or individual that is responsible for monitoring the treatment plant's final effluent for total chlorine residual.
- If the school district is the responsible monitoring the treatment plant's final effluent for total chlorine residual, please indicate what type of measurement device the school district has for this required monitoring.

Operator of Record Requirements

The NPDES permit for the school district's wastewater treatment plant requires that a Class I certified wastewater operator to be the "Operator of Record" for the school district's treatment plant (Dennis Feichtner of National Wastewater Industries serves as contract "Operator of Record"). The NPDES permit also requires that the operator of record be physically present at the treatment works in accordance with the minimum staffing requirements included in paragraph (C)(1) of rule 3745-7-04 of the Ohio Administrative Code. For Class I facilities, the minimum staffing requirements are 3 days a week for a minimum of 1.5 hours. It is unclear at this time if these minimum staffing requirements (3 days a week for a minimum of 1.5 hours) are being met for the school district's treatment plant.

In addition, Ohio Administrative Code 3745-7-09 requires that the owner and the operator of record of a wastewater treatment works maintain operation and maintenance records for the treatment works within the treatment works site. These records are to be housed and maintained in such a manner as to be protected from weather damage and to guarantee the authenticity and accuracy of the records. For the school district's treatment plant, the operation and maintenance records as well as the sign-in times for the Operator of Record are kept in a loose ring calendar book which is stored in a circuit box attached to the railing for the sand filter dosing/chlorine contact tank. This loose ring calendar book does not meet the authenticity criteria for the records keeping requirements of Ohio Administrative Code 3745-7-09.

The school district will need to make arrangements to ensure that these minimum staffing requirements are being met for its treatment plant. The school district will also have to secure a record keeping log book that meets the authenticity criteria referenced in Ohio Administrative Code 3745-7-09. Please notify the Ohio EPA Southwest District Office no later than February 5, 2009 as to how and when these requirements will be met.

Treatment Plant Flow Meter

A review of the monthly reporting data for this treatment plant shows that flow rate data has not been reported for this plant since November 2008. During the inspection Mr. Feichtner indicated that the plant's flow meter has not been

Permit # 1PT00077*CD
NPDES# OH0118311

operational since he assumed operational duties for the plant. I advised Mr. Feitchner to use water use records for plant flow reporting purposes until such time that the plant's flow meter is restored to operation.

The school district will need to make arrangements to have the plant's flow meter repaired. Please notify the Ohio EPA Southwest District Office no later than February 5, 2009 as to when this repair will be made.

Sign at the Treatment Plant Outfall

The NPDES permit for the school district's wastewater treatment plant requires that a permanent marker be posted on the bank to the receiving stream (Patterson Run) at each outfall that is regulated under the NPDES permit (Paragraph N on page 6 of the treatment plant's NPDES permit). I did not see a sign or permanent marker on the bank of the receiving stream for the treatment plant during the inspection.

The school district will need to make arrangements to a sign or permanent marker posted on the bank to the receiving stream for its treatment plant. Please notify the Ohio EPA Southwest District Office no later than February 5, 2009 as to when this requirement will be addressed.

General Lab Criteria

Criteria	Std Methods Required	Status	Rating
Balance <ul style="list-style-type: none"> • Standard Weights • Calibration Frequency / Documentation • Cleanliness, air movement, vibration 	<ul style="list-style-type: none"> • Either NIST Class S or ASTM/ANSI Class 1 weights^{1,2} • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ • Cleanliness of balance is a must and air movement and vibration needs to be kept to a minimum¹ • Service and recalibrate annually (manufacturer representative or comparable)¹ • Must be able to measure to 0.1 grams⁴ • Instrument manual available • Log book maintained⁶ 		
Comments:			
Drying Oven <ul style="list-style-type: none"> • Temperature Recordkeeping • Calibration Frequency / Documentation 	<ul style="list-style-type: none"> • Thermometer calibrated annually with NIST traceable thermometer^{1,2} • Correction factor posted on thermometer / equipment¹ • Temperature recorded with each use⁴ • Thermometer temperature in 0.1° C increments⁵ • Acceptable temperature range is 103° – 105° F⁴ • Instrument manual available • Log book maintained⁶ 		

General Lab Criteria

Comments:			
<p>pH Meter</p> <ul style="list-style-type: none"> • Buffers Used for Calibration • Minimum of 2 point calibration • Buffer Expiration Date • Calibration Frequency / Documentation • Slope Documentation / Acceptability 	<ul style="list-style-type: none"> • Calibration per manufacturer specification and calibration buffers must bracket anticipated result⁷ • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ • Teflon covered magnetic stirrer for sample mixing or equivalent⁸ • Buffers must not be expired • Slope acceptable range indicated on benchsheet² • Instrument manual available • Logbook maintained⁹ 		
Comments:			
<p>DO Meter</p> <ul style="list-style-type: none"> • Calibration Frequency / Documentation • Calibration Method 	<ul style="list-style-type: none"> • Calibration per manufacturer specification¹⁰ • Air or known DO calibration method¹⁰ • Small to no bubble present under membrane (must be smaller than the lead in number 2 pencil)¹¹ • Logbook maintained⁹ • Instrument manual available • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ 		

General Lab Criteria

Comments:			
Incubator <ul style="list-style-type: none"> • Temperature Recordkeeping • Temperature Calibration / Documentation 	<ul style="list-style-type: none"> • Check / record temperature twice daily for each shelf in use¹ • Thermometer calibrated annually with NIST traceable thermometer^{1,2} • Temperature correction information posted on incubator¹ • Acceptable temperature range is 20° C +/-1.0°¹² • Instrument manual available • Logbook maintained⁹ • Temperature Log (thermometer reads to 0.1 Celsius).⁵ 		
Comments:			
Refrigerator <ul style="list-style-type: none"> • Temperature Recordkeeping • Temperature Calibration / Documentation 	<ul style="list-style-type: none"> • Temperature Log (thermometer reads to 0.1 Celsius).⁵ • Thermometer calibrated annually with NIST traceable thermometer^{1,2} • Thermometer held in water bath.¹ • Refrigerator temperature 4° Celsius (+/-2°).¹³ • Do not store volatile solvents, food, or beverages.¹⁴ 		
Comments:			

General Lab Criteria

<p>Chlorine Meter</p> <ul style="list-style-type: none"> • Calibration Frequency / Documentation • Calibration Method • Standard expiration date • Standards used for calibration • Slope Documentation / Acceptability 	<ul style="list-style-type: none"> • pH / millivolt meter read to 0.1 mV¹⁵ • Electrode free of deposits and foreign material • Calibration using three iodate solutions 0.2, 1.0, 5.0 or Calibration per manufacturer specification¹⁶ • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ • Calibration curve (acceptable slope) • Log book being maintained.⁹ • Instrument manual available • Standards Expiration Date 		
<p>Comments:</p>			
<p>Ammonia Meter</p> <ul style="list-style-type: none"> • Calibration Frequency / Documentation • Calibration Method • Standard expiration date • Standards used for calibration • Slope acceptability 	<ul style="list-style-type: none"> • Electrode free of deposits and foreign material • Calibration verification required for testing over long period of time (e.g. 12 hrs.), or after a large number of samples (every 10 samples)³ • Teflon covered magnetic stirrer for sample mixing or equivalent¹⁸ • Standards used for calibration (3 ammonia solution 10 mg/l, 1 mg/l, and 0.1 mg/l) or calibration per manufacturer specification¹⁷ • Verify calibration slope is acceptable (per manufacturer Spec.). • Log book being maintained⁹ • Instrument manual available 		

General Lab Criteria

Comments:			
Sample Handling / Collection <ul style="list-style-type: none"> • Sample Labeling • Chain of Custody 	<ul style="list-style-type: none"> • Samples container labeled (description, date, time, preservative added, initialed).¹⁹ • Chain of custody (description, date, time, signature).¹⁹ • Composite samples refrigerated during sample collection¹⁴ • Equipment blanks utilized¹⁴ • SOP for cleaning of sampling equipment • Logbook being maintained⁹ 		
Comments:			
Desiccator	<ul style="list-style-type: none"> • Properly working seals. • Desiccant fresh (blue color) • Log book being maintained⁹ 		
Comments:			

General Lab Criteria

<p>Benchsheets</p>	<ul style="list-style-type: none"> • Date(s)² • Analyst initials² • Equations, calculations, units for all measurements, notations, and results present² • Calibration information² • Blue or black ink pen² • Corrections, single line through, initialed and dated² 		
<p>Comments:</p>			
<p>Hot Water Bath</p> <ul style="list-style-type: none"> • Temperature Recordkeeping • Temperature Calibration / Documentation • Water Level 	<ul style="list-style-type: none"> • Temperature Log (thermometer reads 0.2° C)²¹ • Thermometer calibrated annually with NIST traceable thermometer^{1,2} • Thermometer total immersion or partial (line on thermometer to ID immersion depth)^{1,5} • Incubator temperature 44.5° C +/- 0.2°²¹ • Log book being maintained⁹ 		
<p>Comments:</p>			
<p>Autoclaves / Steam Sterilizers</p> <ul style="list-style-type: none"> • All apparatus utilized is adequately sterilized before use 	<ul style="list-style-type: none"> • Sterilizing temperature 121° C¹ • Date, contents, sterilization time and temperature, total time in autoclave, and analyst's initials should be recorded each time the autoclave is used¹ • Test monthly for sterilization 		

General Lab Criteria

	<p>efficacy using a biological such as commercially available <i>Geobacillus stearothermophilus</i> in spore strips, suspensions, or capsules ¹</p> <ul style="list-style-type: none"> • Verify the autoclave temperature weekly by using a maximum registering thermometer (MRT) to confirm that 121°C has been reached. ¹ • Thermometer calibrated annually with NIST traceable thermometer ^{1,2} • Log book being maintained ⁹ 		
Comments:			
		Acceptable	
		Marginal	
		Unacceptable	

Acceptable Ratings – No action required (recommend SOP’s written or updated, perform DMRQA’s for all onsite analysis, recommend voluntary lab analyst certification, written response not required).

Marginal Ratings – Improvements required, written response required (recommend SOP’s be written or updated, recommend they perform DMRQA’s for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response).

Unsatisfactory Rating - Improvements required, written response required, NOV issued (recommend SOP’s be written or updated, recommend they perform DMRQA’s for all onsite analysis, recommend voluntary lab analyst certification, require deficiencies to be addressed in written response to NOV).

PAI Audit Recommendation Criteria:

>60% Marginal Rating = Recommend PAI Audit from DES

>45% Combination of Marginal and Unacceptable Rating = Recommend PAI Audit from DES

>30% Unacceptable = Recommend PAI Audit from DES

General Lab Criteria

Approved Standard Methods

- CBOD / BOD 5 Day, Std Methods 5210-B
- Ammonia, Selective Electrode Method, Std Methods 4500-NH3 D
- Total Residual Chlorine, DPD Colorimetric Method, Std Methods 4500-Cl G
- Total Suspended Solids, Dried at 103-105 Degrees C, Std Methods 2540-D
- Dissolved Oxygen, Membrane Electrode Method, Std Method 4500-O G
- pH, Electrometric Method, Std Methods 4500-H+ B
- Fecal Coliform, Membrane Filter Procedure, Std Methods 9222D
- Oil and Grease USEPA 1664A or Std Methods 5520B
- Metals, general, USEPA 200, Std Methods 3111B or C, or 3120B
- Volatiles (Purgeables by purge and trap), USEPA 6210, Std Methods 624
- Semi-Volatiles (Base/Neutrals and acids), USEPA 6410, Std Methods 625
- Pesticides, USEPA 6410 and 6630, Std Methods 608

Preservation and Holding Times

Parameter	Container	Min. Sample Size (mL)	Sample Type	Preservation	Maximum Storage	
					Recommended	Regulatory
BOD / CBOD	P, G	1000	G, C	Refrigerate 4° C +/-2°	6h	48h
TSS	P, G	200	G, C	Refrigerate 4° C +/-2°	7 d	7 d
pH	P, G	50	G	Analyze immediately	0.25h	0.25 h
NH3-N	P, G	500	G, C	Analyze as soon as possible or add H ₂ SO ₄ to pH <2, Refrigerate 4° C +/-2°	7 d	28 d
TRC	P, G	500	G	Analyze immediately	0.25h	0.25 h
DO (electrode)	G, BOD Bottle	300	G	Analyze immediately	0.25h	0.25 h
Temperature	P, G	--	G	Analyze immediately	0.25h	0.25 h
Metals, general	P, G	1000	G, C	For dissolved filter immediately and add HNO ₃ to pH <2	6 months	6 months
Purgeables by purge and trap	G (PTFE lined lid)	40 (X2)	G	HCl to pH<2, Refrigerate 4° C +/-2°	7 d	14 d
Base/Neutrals	G (solvent)	1000	C, G	Refrigerate 4° C +/-2°	7 d	7 d until

General Lab Criteria

and acids	rinsed or baked)					extraction 40 day after extraction
Pesticides	G (PTFE lined lid)	1000	C	Refrigerate 4° C +/-2°	7 d	7 d until extraction 40 day after extraction
Fecal Coliform	G, P (Sterilized)	100	G	Refrigerate 4° C +/-2°, If chlorine present add sodium thiosulfate tablet,	start analysis within 2 hrs of sample collection.	
Oil and Grease	G	1000	G	HCl or H ₂ SO ₄ to pH <2, Refrigerate 4° C +/-2°	28 d	28 d

Notation of Referenced Method

1. Method 9020-B, Item 4	2. Method 1020-A, Item 1
3. Method 1020-B, Item 10	4. Method 2540-B, Item 2
5. Method 2550-B, Item 1	6. Method 1020-B, Item 1
7. Method 4500-H B, Item 4	8. Method 4500-H B, Item 2
9. Method 1020-B, Item 2	10. Method 4500-O B, Item 3
11. Method 4500-O G, Item 3	12. Method 5210-B, Item 5
13. Method 1060B, Table 1060I	14. Method 1060A, Item 2
15. Method 4500-CI I, Item 2	16. Method 4500-CI I, Item 24
17. Method 4500-NH3 D, Item 4	18. Method 4500-NH3 D, Item 2
19. Method 1060-B, Item 2	20. Method 1060-B, Item 1
21. Method 9222D, Item 1	22.

Equipment Logbook Content - all maintenance performed on a piece of equipment should be documented in the logbook. This should include parts replacement and routine maintenance activities. Entries should include date, maintenance performed and initials of person making entry.

