



State of Ohio Environmental Protection Agency

**Southeast District Office**

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Logan, Ohio 43138

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

November 23, 2007

**Re: Coshocton County  
Coshocton WWTP  
Compliance Evaluation Inspection  
Correspondence (PWW)**

Mayor and Council  
City of Coshocton  
760 Chestnut Street  
Coshocton, Ohio 43812

Dear Mayor and Council:

On November 15, 2007, Ohio EPA conducted a Compliance Evaluation Inspection at the City of Coshocton Wastewater Treatment Plant (WWTP). The purpose of the inspection was to determine compliance with terms and conditions of National Pollutant Discharge Elimination System (NPDES) permit number OPD00004\*HD and evaluate the wastewater treatment systems performance.

The following list summarizes violations which have been reported through Monthly Operating Reports (MORs) since the last inspection (May 1, 2006):

Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	80082	CBOD 5 day	30D Conc	25	60.4166	5/1/2006
001	80082	CBOD 5 day	7D Conc	40	65.3333	5/1/2006
001	80082	CBOD 5 day	30D Qty	416	422.027	5/1/2006
001	61942	pH, Minimum	1D Conc	6.5	6.3	5/3/2006
001	80082	CBOD 5 day	7D Conc	40	62.6666	5/8/2006
001	61942	pH, Minimum	1D Conc	6.5	6.3	5/8/2006
001	80082	CBOD 5 day	7D Conc	40	70.	5/15/2006
001	80082	CBOD 5 day	7D Conc	40	43.6666	5/22/2006
001	80082	CBOD 5 day	30D Conc	25	40.3846	6/1/2006
001	80082	CBOD 5 day	7D Conc	40	47.	6/1/2006
001	80082	CBOD 5 day	7D Conc	40	46.	6/22/2006
001	31616	Fecal Coliform	30D Conc	1000	1787.99	8/1/2006
001	80082	CBOD 5 day	30D Conc	25	26.5	8/1/2006
001	61942	pH, Minimum	1D Conc	6.5	6.1	8/5/2006
001	31616	Fecal Coliform	7D Conc	2000	3842.91	8/15/2006
001	31616	Fecal Coliform	7D Conc	2000	3322.80	8/22/2006
001	80082	CBOD 5 day	7D Conc	40	44.	8/22/2006
001	80082	CBOD 5 day	30D Conc	25	31.6666	9/1/2006

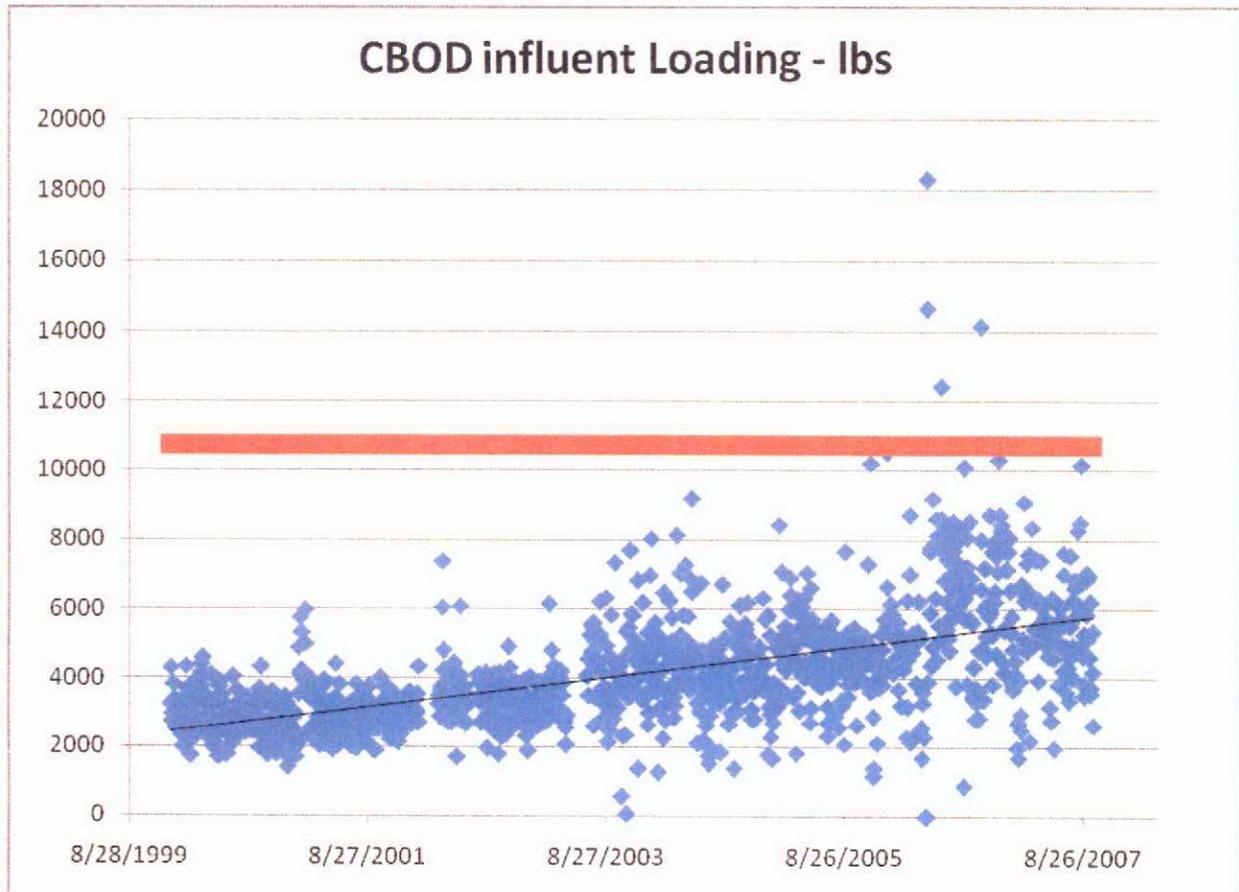
Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
001	80082	CBOD 5 day	7D Conc	40	44.3333	9/8/2006
001	50060	Chlorine, Total Residual	1D Conc	0.038	.07	9/20/2006
001	50060	Chlorine, Total Residual	1D Conc	0.038	.12	10/14/2006
001	50060	Chlorine, Total Residual	1D Conc	0.038	.06	10/15/2006
001	80082	CBOD 5 day	30D Conc	25	30.4	11/1/2006
001	80082	CBOD 5 day	30D Conc	25	32.1666	12/1/2006
001	80082	CBOD 5 day	30D Conc	25	32.7857	1/1/2007
001	80082	CBOD 5 day	30D Conc	25	31.5	2/1/2007
001	80082	CBOD 5 day	30D Conc	25	34.7916	3/1/2007
001	61942	pH, Minimum	1D Conc	6.5	6.2	3/24/2007
001	80082	CBOD 5 day	30D Conc	25	39.75	4/1/2007
001	80082	CBOD 5 day	7D Conc	40	56.6666	4/22/2007
001	31616	Fecal Coliform	7D Conc	2000	3489.21	5/1/2007
001	80082	CBOD 5 day	30D Conc	25	40.9166	5/1/2007
001	80082	CBOD 5 day	7D Conc	40	40.6666	5/1/2007
001	80082	CBOD 5 day	7D Conc	40	42.6666	5/8/2007
001	80082	CBOD 5 day	7D Conc	40	41.6666	5/15/2007
001	61942	pH, Minimum	1D Conc	6.5	6.4	5/21/2007
001	61942	pH, Minimum	1D Conc	6.5	6.4	5/27/2007
001	80082	CBOD 5 day	30D Conc	25	41.6666	6/1/2007
001	80082	CBOD 5 day	7D Conc	40	41.6666	6/1/2007
001	80082	CBOD 5 day	7D Conc	40	40.6666	6/8/2007
001	61942	pH, Minimum	1D Conc	6.5	6.4	6/10/2007
001	61942	pH, Minimum	1D Conc	6.5	6.3	6/16/2007
001	80082	CBOD 5 day	7D Conc	40	45.3333	6/22/2007
001	80082	CBOD 5 day	30D Conc	25	29.8333	7/1/2007
001	80082	CBOD 5 day	7D Conc	40	40.6666	7/1/2007
001	50060	Chlorine, Total Residual	1D Conc	0.038	.05	7/2/2007
001	61942	pH, Minimum	1D Conc	6.5	6.4	7/5/2007
001	31616	Fecal Coliform	7D Conc	2000	3026.43	7/15/2007
001	50060	Chlorine, Total Residual	1D Conc	0.038	.05	7/24/2007
001	50060	Chlorine, Total Residual	1D Conc	0.038	.16	7/27/2007
001	80082	CBOD 5 day	30D Conc	25	26.5714	8/1/2007
001	61942	pH, Minimum	1D Conc	6.5	6.4	8/14/2007
001	61942	pH, Minimum	1D Conc	6.5	6.3	8/24/2007
001	61942	pH, Minimum	1D Conc	6.5	6.1	8/27/2007
001	61942	pH, Minimum	1D Conc	6.5	6.3	8/28/2007
001	61942	pH, Minimum	1D Conc	6.5	6.3	8/29/2007
001	61942	pH, Minimum	1D Conc	6.5	5.9	8/30/2007
001	80082	CBOD 5 day	30D Conc	25	28.25	9/1/2007

The City of Coshocton is required in Part III, Paragraph 12 of its NPDES permit to notify Ohio EPA of any exceedance of permit limitations. Coshocton has failed to notify Ohio EPA of the above referenced violations with respect to the requirements of the permit. Please review the requirements of this paragraph and ensure that any and all future violations are

reported as specified. Submit correspondence which can be reviewed and which documents each violation.

The City is currently on the agency's Significant Non-Compliance (SNC) List. Previous violations were reported to be a result of the lack of performance of the rock media. Many of the above listed violations have been suggested as a result of construction phasing and startups of the attached growth. Additionally, from operations the rotation of the trickling filter arms has been challenging with flow being a limiting factor. Meanwhile, influent organic loadings are steadily rising and the startup of Coshocton Ethanol is likely to contribute approximately an additional 1,000 lb of Biological Oxygen Demand (BOD) per day to the City's influent after pretreatment. There is concern that the city may continue to see violations and possibly with more frequency. Addressing the increasing influent organic loadings and optimizing plant performance should become a focal point of treatment if the City is to meet compliance with the NPDES permit. Formal enforcement action will be initiated if the violations continue.

The chart below includes data reported since January 2000 with pounds of CBOD on the y axis and dates on the x axis. The blue marks indicate the daily loading placed on the Coshocton WWTP, while the red line indicates the organic loading design capacity of the plant with the ability to treat to secondary effluent limits as required by NPDES permit.

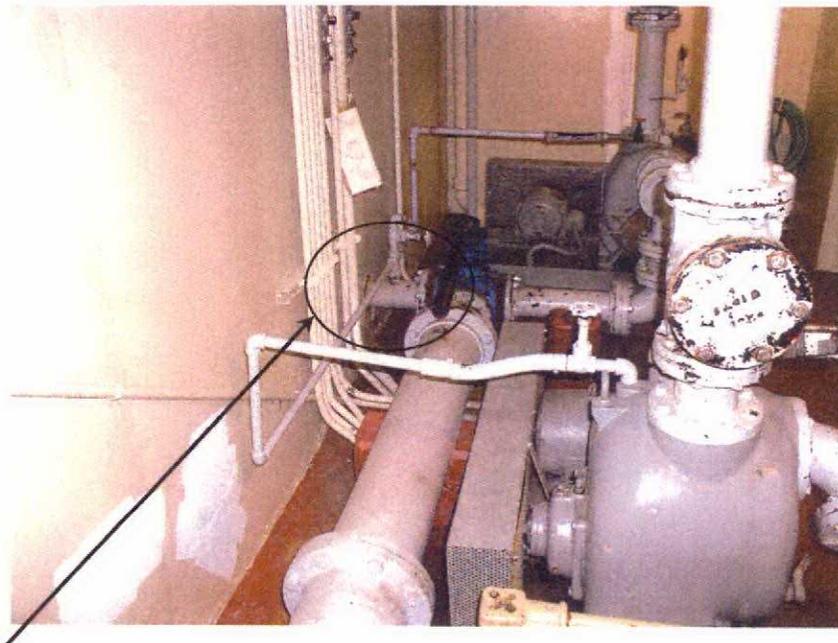


The zero loadings in the chart indicate where a code was reported and a number value could not be correlated, so the two points indicating zero are not valid. The numbers are spraying out and the overall trend is upwards. The City should be aware of the plant influent organic growth and realize the limitation of the plant.

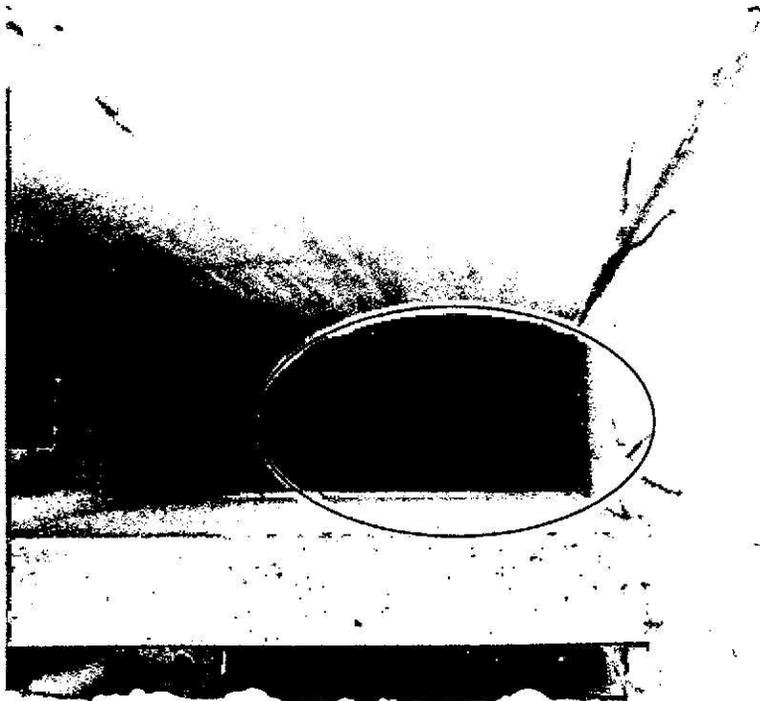
We ask that the City be cognizant of its septage receiving where septage is often 37 times more concentrated than domestic sewage. 10,000 gallons of septage (roughly four loads) can add 600 additional pounds of BOD loading if not considerably more. Upon discussions with the staff, four loads is typical to a day however some days just a couple loads and others there could be significantly more. The current septage received flows to the headworks of the plant and it goes through the whole process with the sanitary flow. Thus, septage receiving has a role in influent loading, especially in the scattering effect shown in the graph above.

Upon the inspection of the plant, the following items should be addressed:

1. The plant has a plant bypass, which reportedly has not been used. This bypass enables operators to control the amount of flow received at the plant without inundating plant operations. Such bypasses are commonly in existence elsewhere. The use of any such bypass should only be used out of necessity and is illegal unless the conditions in Part III, Item 11 of the NPDES permit are met. The City of Coshocton WWTP reportedly has a sludge bypass line which enables sludge from the primary clarifiers to be directed to the river which would result in a violation. This practice is not reserved for any occasion and any such line should be properly abandoned. Below are two pictures showing the line in question.



The above three-way valve was reported as being the origin of the pipe seen snaking through the plant bypass shown below. The City needs to evaluate this pipe and determine where the pipe ends.



If indeed this line is a sludge bypass line as reported, then the line should be properly abandoned. Please notify our agency of this correction. As a minimum, we would like to see a physical disconnection of this pipe with blind flanges. If the pipe turns out to serve some other purpose please report back to our agency with some sort of visual evidence.

2. Digester alarms are to be corrected at the administration building panel. The sensors were reported as working in the digester building, but the relay to the display panel with autodialer is malfunctioning. This item was reported as going to be corrected in the near future with the incoming SCADA system.
3. Two of the trickling filter recycle pumps are in the process of being replaced. The replacement of these pumps shall be accomplished as soon as possible to ensure the plants treatment ability in the event that one of the remaining pumps becomes inoperable. See the following picture. The City should attempt to employ variable frequency drives on the recycle pumps to allow the operator more flexibility.



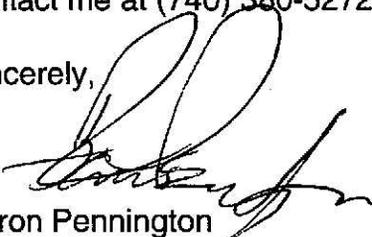
4. Effluent flow meter is reportedly due for calibration. Calibration of flow meters used for reporting flow under the NPDES permit should be done at a minimum of once annually if not more as to satisfy manufacturer's recommendations.
5. The composite sampler should have a thermometer in a liquid stored in the refrigerator. A log should be maintained with the date, time, and temperature reading recorded during sample collection and setup.
6. CBOD tests - verify 2 mg/L depletion with 1.0 mg/L residual to be reportable. The use of a nitrification inhibitor shall be in accordance with Standard Methods and check shelf life of the inhibitor. During chlorination season, the sample shall be dechlorinated and the sample seeded to ensure adequate depletion is achieved.

Please follow up on the above addressed items within thirty days of receipt of this letter.

Coshocton WWTP  
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A copy of our inspection report is enclosed. The assistance and cooperation received during the inspection was appreciated. If you have any questions, please feel free to contact me at (740) 380-5272.

Sincerely,



Aaron Pennington  
District Representative  
Division of Surface Water

AP/dh

Enclosures

c: Dave McVay, Supt, Coshocton WWTP (w/enclosure)

**NPDES  
Compliance Inspection Report**

**A. NATIONAL DATA SYSTEM CODING**

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
OPD00004*HD	OH0024775	November 15, 2007	C	S	1

**B. FACILITY DATA**

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Coshocton Wastewater Treatment Plant 2742 CR 271 Coshocton, Ohio 43812	~10:00 A.M.	March 1, 2003
	Exit Time	Permit Expiration Date
	~2:00 P.M.	July 1, 2007

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Dave McVay, Superintendent Tom Watts, Lead Operator / Lab Tech	(740) 622-1684, ext. 10 (740) 622-1684, ext. 11
Name, Address and Title of Responsible Official	Phone Number
Mayor and Council City of Coshocton 760 Chestnut Street Coshocton, OH 43812	

**C. AREAS EVALUATED DURING INSPECTION**

<u>  </u> M Permit	<u>  </u> M Flow Measurement	<u>  </u> N Pretreatment
<u>  </u> S Records/Reports	<u>  </u> M Laboratory	<u>  </u> N Compliance Schedules
<u>  </u> M Operations & Maintenance	<u>  </u> M Effluent/Receiving Waters	<u>  </u> S Self-Monitoring Program
<u>  </u> M Facility Site Review	<u>  </u> S Sludge Storage/Disposal	<u>  </u> Other
<u>  </u> N Collection System		

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

**D. SUMMARY OF FINDINGS/COMMENTS** (attach additional sheets if necessary)

See attached cover letter.

  
 \_\_\_\_\_  
 Aaron Pennington, Inspector, Ohio EPA, Southeast District Office

11-21-07  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office

11/26/07  
 \_\_\_\_\_  
 Date

**E. PERMIT VERIFICATION**

Inspection Observations Verify the Permit	Yes	No	N/A	N/E
a. Correct name and mailing address of permittee	X			
b. Correct name and location of receiving waters	X			
c. Product(s) and production rates conform with permit application (industries)			X	
d. Flows and loadings conform with NPDES permit	X			
e. Treatment processes are as described in permit application/briefing memo	X			
f. New treatment process(es) added since last inspection	X <sup>1</sup>			
g. Notification given to state of new, different, or increased discharges			X	
h. All discharges are permitted	X			
i. Number and location of discharge points are as described in permit	X			

<sup>1</sup> Upgraded Trickling Filter media from rock to crossflow. Also in construction of Biothane for pretreatment of CE.

**F. COMPLIANCE SCHEDULES/VIOLATIONS**

	Yes	No	N/A	N/E
a. Any significant violations since the last inspection	X <sup>1</sup>			
b. Permittee is taking actions to resolve violations	X			
c. Permittee has compliance schedule		X		
d. Compliance schedule contained in:			X	
e. Permittee is meeting compliance schedule			X	

<sup>1</sup> Limits for CBOD<sub>5</sub>, pH, fecals, and Chlorine have been exceeded since previous inspection.

**G. OPERATION AND MAINTENANCE**

Treatment Facility Properly Operated and Maintained	Yes	No	N/A	N/E
a. Standby power available: Generator	X			
b. Adequate alarm system available for power or equipment failures	X <sup>1</sup>			
c. All treatment units in service other than backup units	X			
d. Sufficient operating staff provided: # of shifts <u>3</u> Days/Week <u>7</u>	X			
e. Operator holds unexpired license of class required by permit Class: III	X			
f. Routine and preventive maintenance schedule/performed on time:	X			
g. Any major equipment breakdown since last inspection	X <sup>2</sup>			
h. Operation and maintenance manual provided and maintained		X		
i. Any plant bypasses since last inspection		X		
j. Regulatory agency notified of bypasses:			X	
k. Any hydraulic and/or organic overloads experienced since last inspection	X <sup>3</sup>			

<sup>1</sup> Digester alarms are to be corrected at the Administration building panel. Sensors were reported as working in the digester building.

<sup>2</sup> Two trickling filter recycle pumps are being replaced, a new cover placed on the South Primary digester, and a new automatic transfer switch installed.

<sup>3</sup> Plant organic loading with the new crossflow media is designed for approximately 11,000 lbs BOD/day assuming 30% removal out of the primary clarifiers. A recent review of influent data shows multiple loadings in excess of 12,000 lbs BOD/day. With the new Biothane effluent from Coshocton Ethanol about to place an additional 1,000 lb BOD on the system, future violations seem likely to occur. Addressing the increasing influent loadings and optimizing plant performance should become a focal point of treatment if the City is to meet compliance with the NPDES permit. Continued non-compliance with the permit will lead to formal enforcement action.

Collection System	Yes	No	N/A	N/E
a. Percent combined system: <u>0%</u>				
b. Any collection system overflows since last inspection (CSO _____ SSO _____)		X		
c. Regulatory agency notified of overflow (SSOs)			X	
d. CSO O and M plan provided and implemented		X		
e. CSOs monitored and reported in accordance with permit			X	
f. Portable pumps used to relieve system	X			
g. Lift station alarm systems provided and maintained	X			
h. Are lift stations equipped with permanent standby power or equivalent	X			
i. Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection		X		
j. Any complaints received since last inspection of basement flooding	X <sup>1</sup>			
k. Are any portions of the sewer system at or near capacity	X			

<sup>1</sup> Frequent (weekly) backups from clogs.

## H. SLUDGE MANAGEMENT

a. Sludge Management Plan (SMP): 3/16/01 Submitted Date  
06-253-PW Approval Number  
\_\_\_\_\_  
Not submitted  
\_\_\_\_\_  
N/A

	Yes	No	N/A	N/E
b. Sludge Management Plan current	X			
c. Sludge adequately disposed	X			
d. If sludge is incinerated, where is ash disposed of?			X	
e. Is sludge disposal contracted? Synagro	X			
f. Has amount of sludge generated changed significantly since last inspection		X		
g. Adequate sludge storage provided at plant	X			
h. Land application sites monitored and inspected per SMP	X			
i. Records kept in accordance with state and federal law	X			
j. Any complaints received in last year regarding sludge		X		
k. Is sludge adequately processed	X			



Part 3, Laboratory - Quality Control/Quality Assurance		Yes	No	N/A	N/E
f.	Quality assurance manual provided and maintained				X
g.	Satisfactory calibration and maintenance of instruments and equipment				X
h.	Adequate records maintained				X
i.	Results of latest U.S. EPA quality assurance performance sampling program:				

Tom Watts had reported that they had participated in the latest DMR/QA achieving satisfactory in all the necessary parameters.

**J. EFFLUENT/RECEIVING WATER OBSERVATIONS**

Outfall	Oil Sheen	Grease	Turbidity	Visible Foam	Visible Float Solids	Color	Other
001	None	None	Slight	None	None	Slightly dark	