

MEMORANDUM

March 8, 1977

State of
Washington
Department
of Ecology



To: Ken Mauerman
From: Douglas Houck
Subject: West Point (Metro)
Class II Inspection

On September 14, 1976, Mike Morhous and I arrived at the West Point STP to conduct the scheduled Class II Inspection. Automatic composite samplers were installed at the influent, unchlorinated and chlorinated effluent. The influent sampler was located in the preaeration tank. The unchlorinated effluent sampler was located at the end of the western primary clarifier. The chlorinated effluent sampler was located at the large plastic tank where the chlorinated effluent is analyzed for chlorine residual. All samplers were adjusted to take a 250 ml aliquot every 30 minutes. At each sampling location the temperature, pH and specific conductivity was measured. The following table gives those results.

<u>Parameter</u>	<u>Influent</u>	<u>Unchl. Effluent</u>	<u>Chl. Effluent</u>
Temp. °C	20	19	19
pH	7.0	6.8	6.7
Cond. umhos/cm	455	490	365

Laboratory procedures were reviewed with Mike Mar and found to be generally acceptable. There were a few inconsistencies such as, they do not reseed their dechlorinated BODs and they need to keep a closer watch on the temperatures for their incubators. The following table shows the temperatures as they were and as they should be.

	<u>Actual Temp.</u>	<u>Correct Temp.</u>
Drying oven	118	103-105°C
BOD incubator	23	20 ± 1
Presumptive incubator	34	35 ± 0.5
Fecal incubator	45	44.5 ± 0.2

all temperatures are °C

On the 15th Mike Morhous and I returned to pick up the samplers and split the influent and chlorinated effluent composite samples with the treatment plant's laboratory. The following table shows both DOE's and Metro's chlorinated effluent results along with their NPDES weekly average permit limitations.

<u>Parameter</u>	<u>DOE</u>	<u>Metro</u>	<u>NPDES</u>
pH	7.0	7.1	6.5-8.5
COD (mg/l)	233	186	
BOD ₅ (mg/l)	98 (81,732)	76	125 (118,000)
T.S.S. (mg/l)	55 (45,870)	58	110 (105,000)
Fecal Coliform (colonies/100 ml)	280	240	900
Cd.	<0.02	0.008	0.020 (12)
Cr.	0.05 (41.7)	0.04	0.20 (100)
Cu	0.06 (50)	0.06	0.20 (110)
Pb	0.05 (42)	0.04	0.20 (105)
Hg	0.0024		0.010
Ni	<0.1	0.02	0.10 (60)
Zn	0.22 (183)	0.16	0.50 (450)
Flow (MGD)	100		195
() - lbs/day			

As can be seen by the above table, during the time of the inspection the West Point treatment plant was well within their NPDES permit limitations.

DH:ee

cc: Dick Cunningham
Central Files

DEPARTMENT OF ECOLOGY

OLYMPIA LABORATORY

DATA SUMMARY

ORIGINAL TO: 2 #
 COPIES TO: M
 LAB FILES:

Source: West Point STA (METRO)

Collected By Hoveck, Mathews, & Andrews

Site Collected 9/14-15/76

Sample Number:	76-3633	34	35	36	(CONT.)	-3633	-3635
Parameter:	INF.	UNCHLOR. EFF.	CHLOR. EFF.	FINAL EFF.		INF.	CHLOR. EFF.
Turbidity (NTU)	7.1	6.9	7.0				
Conductivity (umhos/cm)			670.				
D	485.	170.	233.				
D (5 day)	157.	89.	98.				
total Coliform (Col./100ml)				EST 120.			
MPN total Coliform (Col./100ml)				280.			
3-N (Filtered)		<.02	0.10	<.02			
2-N (Filtered)		<.02	<.02	<.02			
3-N (Unfiltered)		14.0	13.9	14.4			
Kjeldahl-N (Unfiltered)							
PO4-P (Filtered)		3.2	3.4	3.6			
total Phos.-P (Unfiltered)		4.6	4.8	6.0			
total Solids	462	357	363				
total Non. Vol. Solids	297	261	281				
total Suspended Solids	190	48	55				
total Sus. Non Vol. Solids	40	8	14				
Copper	0.15			0.06	CADMIUM: <0.02	<0.02	
Chromium	0.10			0.05	MERCURY: 4.0 ppb	2.4 ppb	
Lead	0.07			0.05	CYANIDE:		
Zinc	0.38			0.22			
Nickel	<0.1			<0.1			

All results are in PPM (mg/L) unless otherwise specified. ND is "None Detected"
 "<" is "Less Than" and ">" is "Greater Than"