ADEQ

A R K A N S A S
Department of Environmental Quality

October 1, 2009

Denise Georgiou
Industrial Pretreatment Coordinator
Operations Management International, Inc.
1400 North Fox Hunter Road
Fayetteville, AR 72701

Re: City of Fayetteville Maximum Allowable Headworks Loadings and Water Quality Levels not to be Exceeded (NPDES Permit Numbers AR0020010 and AR0050288 AFIN 72-00102)

Dear Ms. Georgiou:

The City of Fayetteville existing local limits are based on an Operations Management International document dated May 30, 1995 (Part 2 in the Industrial Pretreatment Program Document). The enclosed final excel spreadsheets (shown in Word format) indicate the current two Publicly Owned Treatment Works' (POTWs') Maximum Allowable Headworks Concentrations (MAHCs), Maximum Allowable Industrial Loadings (MAILs), and Water Quality Standards (WQS) not to be exceeded. The City should review these documents and may use the MAHCs and WQS levels for future annual reports.

Please find enclosed new charts with the current MAHCs and WQS levels for both POTWs (Noland and West POTWs). The City should display MAHCs (and not Maximum Allowable Headworks Loadings-MAHL) on the charts for two reasons. First, the City can compare lab analyses with the MAHCs and, second, the MAHLs are based on a specific plant flow which may not be applicable.

Please contact the Department at 682-0626 or torrence@adeq.state.ar.us if you have questions or concerns.

Sincerely,

Rufus Torrence
ADEQ Engineer

Enclosures:

1. Fayetteville Noland POTW Technically Based Local Limit Development dated October 1, 2009
2. Fayetteville West POTW Technically Based Local Limit Development dated October 1, 2009
3. AR0020010 Noland POTW Influent / Effluent Chart
4. AR0050288 West POTW Influent / Effluent Chart

MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT
REPORTING YEAR: _____, 20__ TO _____, 20____
TREATMENT PLANT: City of _____ NPDES PERMIT #AR0020010
AVERAGE POTW FLOW: ____MGD % IU FLOW: ____%

METALS, CYANIDE and PHENOLS	MAHC (Total) (µg/l) (2)	INFLUENT DATES SAMPLED (µg/l) Once/quarter				WQ level/ limit (µg/l) (2)	EFFLUENT DATES SAMPLED (µg/l) Once/quarter				LABORATORY ANALYSIS		
		Date	Date	Date	Date		Date	Date	Date	Date	EPA MQL (µg/l) (1)	EPA Method Used (1)	Detection Level Achieved (µg/l)
Antimony	N/A					N/A					60		
Cadmium	21.2					7.0					0.5		
Copper	684.66					41.1					0.5		
Lead	39.02					18.7					0.5		
Mercury	0.03					0.01					.005		
Nickel	235.34					42.2					0.5		
Selenium	11.16					5.6					5		
Silver	44.34					20.0					0.5		
Zinc	300.00					372.9					20		
Chromium	676.51					1255.0					10		
Cyanide	18.72					5.8					10		
Arsenic	30.82					342.4					0.5		
Molybdenum	27.74					N/A					--		
Phenols	N/A					N/A					5		
Beryllium	11.83					5.9					0.5		
Thallium	N/A					N/A					0.5		
Flow, MGD	N/A					N/A							
(3)													

(1) It is advised that the influent and effluent samples are collected considering flow detention time through each plant. **Analytical MQLs must be met for the effluent (and SHOULD be met for the influent) so the data can also be used for Local Limits assessment and NPDES application purposes.**

(2) This value was calculated during the development of TBLL based on State WQ criteria, EPA guidance and either ADEQ Pretreatment staff Excel spreadsheets or the Permittee's consultant with concurrence from Pretreatment staff.

(3) Record the name of any pollutant [40 CFR 122, Appendix D, Table II and/or Table V] detected and the concentration at which they were detected.

MAHL - Maximum Allowable Headworks Level / MAHC – Maximum Allowable Headworks Concentration

WQ - "Water Quality Levels not to exceed" OR actual permit limit.

MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT
REPORTING YEAR: _____, 20__ TO _____, 20____
TREATMENT PLANT: City of _____ NPDES PERMIT #AR0050288
AVERAGE POTW FLOW: ___MGD % IU FLOW: ___%

METALS, CYANIDE and PHENOLS	MAHC (Total) (µg/l) (2)	INFLUENT DATES SAMPLED (µg/l) Once/quarter				WQ level/ limit (µg/l) (2)	EFFLUENT DATES SAMPLED (µg/l) Once/quarter				LABORATORY ANALYSIS		
		Date	Date	Date	Date		Date	Date	Date	Date	EPA MQL (µg/l) (1)	EPA Method Used (1)	Detection Level Achieved (µg/l)
Antimony	N/A					N/A					60		
Cadmium	21.2					7					0.5		
Copper	456.44					41.08					0.5		
Lead	74.91					18.73					0.5		
Mercury	0.03					0.01					.005		
Nickel	844.04					422.02					0.5		
Selenium	11.16					5.58					5		
Silver	86.74					19.95					0.5		
Zinc	300.00					372.89					20		
Chromium	1000.0					1255.02					10		
Cyanide	18.72					5.80					10		
Arsenic	100.0					342.39					0.5		
Molybdenum	200.0					N/A					--		
Phenols	N/A					N/A					5		
Beryllium	11.83					5.91					0.5		
Thallium	N/A					N/A					0.5		
Flow, MGD	N/A					N/A							
(3)													

(1) It is advised that the influent and effluent samples are collected considering flow detention time through each plant. **Analytical MQLs must be met for the effluent (and SHOULD be met for the influent) so the data can also be used for Local Limits assessment and NPDES application purposes.**

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MAHL - Maximum Allowable Headworks Level / MAHC – Maximum Allowable Headworks Concentration

WQ - "Water Quality Levels not to exceed" OR actual permit limit.

CALCULATIONS OF ARKANSAS WATER QUALITY-BASED EFFLUENT LIMITATIONS

For an Arkansas River Stream

(Reserved)

STEP 1: INPUT TWO LETTER CODE FOR ECOREGION (Use Code at Right) — OH

Basin Name — White River

FACILITY

Permittee	FYVL Noland
NPDES Permit No.	AR0020010
Outfall No.(s)	001
Plant Ave Flow (MGD)	9.67
SIUs Ave Flow (MGD)	1.24
Domestic Flow (MGD)	8.43
Plant Design Flow (MGD)	12.60
Plant Design Flow (cfs)	19.47

RECEIVING STREAM

Is this a large river? (see list at right)(enter "1" if yes, "0" if no; make entry as a number)	0
Name of Receiving Stream:	White River
Waterbody Segment Code No.	4K
Is this a lake or reservoir? (enter '1' if yes, '0 ' = no; make entry as a number)	0
Is seasonal critical flow applicable (1=yes, 0=no); see Reg 2 page 1-3 for details.	0
(Reserved) DO NOT INPUT DATA INTO CELL H25, H26 & H27....LEAVE BLANK=>	
(Reserved)	
(Reserved) (Reserved)	
(Reserved) (Reserved)	(Reserved)
(Reserved) (Reserved)	(Reserved)
(Reserved) (Reserved)	(Reserved)
Ecoregion TSS (mg/l) (For Large River, See List to Right)	2.50
Ecoregion Hardness (mg/l)	148.00
Enter 7Q10 (cfs) (Reserved)	0.00 (Reserved)
Long Term Ave / Harmonic Mean Flow (cfs)	0.00 (Reserved) (Reserved)
Using Diffusers (Yes/No)	No
pH (Avg)	7.40
Percent (%) of 7Q10 for Chronic Criteria	0.67
Percent (%) of 7Q10 for Acute Criteria	0.33
Water Effect Ration (WER)	1.00
EPA Statistical Factor for Data (enter 2.13 for <20; enter 1 for >20)	2.13
Ave Monthly Limit LTA Multiplier (Ref: page 103 TSD for WQ-Based Toxics Control)	1.55
Max Daily Limit LTA Multiplier (Ref: " " " ")	3.11

Codes & TSS for Ecoregions and Large Rivers

Ouachita Mts. Eco (OM) =	2.0 mg/l	Arkansas (Ft. Smith to Dardanelle Dam)	12.0 mg/l
Ozark Highlands Eco (OH) =	2.5 mg/l	Arkansas (Dardanelle Dam to Terry L&D	10.5 mg/l
Boston Mts. Eco (BM) =	1.3 mg/l	Arkansas (Terry L&D to L&D No. 5)	8.3 mg/l
Ark River Valley Eco (AV) =	3.0 mg/l	Arkansas (L&D No. 5 to Mouth)	9.0 mg/l
Gulf Coastal Eco (GC) =	5.5 mg/l	White (Above Beaver Lake)	2.5 mg/l
Delta Ecoregion (DL) =	8.0 mg/l	White (Below Bull Shoals to Black Riv)	3.3 mg/l
		White (From Black River to Mouth)	18.5 mg/l
		St. Francis River	18.0 mg/l
		Ouachita (Above Caddo River)	2.0 mg/l
		Ouachita (Below Caddo River)	5.5 mg/l
		Red River	33.0 mg/l

Total Hardness for:

Arkansas River = 125 mg/l	Red River = 211 mg/l
Ouachita River = 28 mg/l	St. Francis River = 103 mg/l
White River = 116 mg/l	
Gulf Coastal = 31 mg/l	Ouachita Mount = 31 mg/l
Ozark Highlands = 148 mg/l	Ark River Valley = 25 mg/l
Boston Mount = 25 mg/l	Delta = 81 mg/l

Large Rivers

Mississippi River, Arkansas River, Red River

White (Below confluence with Black River)

Ouachita (Below confluence with Little Miss. River)

For industrial and federal facility, use the highest monthly average flow for the past 24 months. For POTWs, use the design flow.

#VALUE! => No violation or Not Applicable

WQ Limits for the FYVL Noland

	Aquatic Life
	AML, ug/l
Cadmium Total	7.00
Chromium (hex)	11.81
Copper Total	41.08
Lead Total	18.73
Mercury Total	0.01
Nickel Total	422.02
Selenium Total	5.58
Silver Total	19.95
Zinc Total	372.89
Chromium (Tri)	1255.02
Cyanide Total	5.80
Beryllium Total	5.91
Arsenic	342.39

FYVL Noland MAHC

Pollutant	% Rem***	Water Quality	Water Quality*	Sludge	Sludge+	Inhibition**	Inhibition++	MAHL	MAHC	Domestic	Allocation for %SF	MAIL	Max Inf Exceeded	Max Effluent
		mg/l	lbs/day	mg/kg	lbs/day	mg/l	lbs/day	lbs/day	mg/l	lbs/day	lbs/day^	lbs/day	MAHC	vs WQS(mg/l)
Cadmium Total	67	0.0070	1.71	85	1.89	1.00	80.65	1.71	0.02120	0.04	1.28	1.247	No	No
Copper Total	94	0.0411	55.22	4300	68.22	1.00	80.65	55.22	0.68466	3.36	41.41	38.051	No	No
Lead Total	52	0.0187	3.15	840	24.09	1.00	80.65	3.15	0.03902	0.23	2.36	2.125	No	No
Mercury Total	60	0.00001	0.0027	57	1.42	0.10	8.06	0.0027	0.00003	0.0006	0.0020	0.001	No	No
Nickel Total	33	0.4220	50.7987	420	18.98	1.00	80.65	18.98	0.23534	0.54	14.23	13.699	No	No
Selenium Total	50	0.0056	0.900	100	2.983	0.20	16.13	0.900	0.01116	0.35	0.68	0.323	No	No
Silver Total	55	0.0200	3.58	0	0.00	0.25	20.16	3.58	0.04434	0.08	2.68	2.604	No	No
Zinc Total	70	0.3729	100.2422	7500	159.78	0.300	24.19	24.19	0.30000	5.63	18.15	12.520	No	No
Chromium Total	82	1.2550	562.3026	3000	54.56	1.00	80.65	54.56	0.67651	0.70	40.92	40.216	No	No
Cyanide Total	69	0.0058	1.51	0	0.00	0.10	8.06	1.51	0.01872	0.35	1.13	0.781	No	No
Arsenic	45	0.3424	50.2051	75	2.49	0.10	8.065	2.49	0.03082	0.35	1.86	1.512	No	No
Molybdenum	50	0.0000	0.0000	75	2.237	0.20	16.13	2.237	0.02774	0.21	1.68	1.467	No	No
Beryllium	50	0.005915	0.954	0	0.00	0.10	8.06	0.954	0.01183	0.35	0.72	0.364	No	No

Dry tons/day of sludge **** 7.46 Saftey Factor 0.25

* lbs/day = mg/l * 8.34 * average flow / (1-%Rem)
** Page 3-44 of EPA 833B87202 Be est @ 0.10 mg/l.
\+ lbs/day = (dry tons/day * 0.002 * critria(mg/kg))/ % Rem
++ lbs/day = mg/l * Flow * 8.34
^ lbs/day = (1 - SF) * MAHL
MAIL = Maximum allowable industrial loading = Allocation for % SF - Domestic
***Rem Eff from Page 3-56 EPA 833B87202, Be & Mo est @ 50; Cu,Pb, Ni, Ag & Zn from "Rem" spreadsheet in this Workbook
**** Dry tons/day of sludge based on page 3 of checklist in Audit Report dated January 31, 2007

FYVL Noland REMOVAL EFFICIENCIES (% REM)

Influent

Date	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
02/26/08		0.0570	0.0017		0.0076		0.0015	0.1000					
08/15/08		0.0150	0.0016		0.0059		0.0006	0.0600					
12/08/08		0.0440	0.0034		0.0094		0.0012	0.1200					
12/17/08		0.0370	0.0020		0.0076		0.0013	0.0900					
02/26/07		0.0240	0.0080				0.0006	0.0900					
10/10/07		0.1100					0.0014	0.0200					
Detection Level (DL)	0.0005	0.0005	0.0005	0.000005	0.0005	0.0050	0.0005	0.0200	0.0100	0.0100	0.0005	0.0100	0.0005
Average	#DIV/0!	0.04783	0.00334	#DIV/0!	0.00763	#DIV/0!	0.00110	0.08000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Maximum	0.0000	0.1100	0.0080	0.0000	0.0094	0.0000	0.0015	0.1200	0.0000	0.0000	0.0000	0.0000	0.0000
All Concs > DL (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Effluent

Date	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
02/26/08		0.0045	0.0005		0.0064		0.0005	0.0440					
08/15/08		0.0008	0.0005		0.0051		0.0005	0.0200					
12/08/08		0.0022	0.0005		0.0049		0.0005	0.0200					
12/17/08		0.0023	0.0005		0.0041		0.0005	0.0200					
02/26/07		0.0050	0.0060				0.0005	0.0200					
10/10/07		0.0016					0.0005	0.0200					
Detection Level	0.0005	0.0005	0.0005	0.000005	0.0005	0.0050	0.0005	0.0200	0.0100	0.0100	0.0005	0.0100	0.0005
Average	#DIV/0!	0.00273	0.00160	#DIV/0!	0.00513	#DIV/0!	0.00050	0.02400	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Maximum	0.0000	0.0050	0.0060	0.0000	0.0064	0.0000	0.0005	0.0440	0.0000	0.0000	0.0000	0.0000	0.0000
All Concs > DL (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

% Rem

	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
Average	#DIV/0!	94	52	#DIV/0!	33	#DIV/0!	55	70	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
EPA % REM	67	86	61	60	42	50	75	79	82	69	45	50	50

Note: The engineer considered only the pollutants with concentrations in the influent well above the method detection level.

Domestic Calculations for FYVL Noland

Pollutants	EPA, P3-59* mg/l	Avg Reported** mg/l	Loading lbs/day
Cadmium Total	0.0030	0.00050	0.04
Copper Total	0.0607	0.04780	3.36
Lead Total	0.0490	0.00334	0.23
Mercury Total	0.0003	0.0000079	0.00056
Nickel Total	0.0210	0.00763	0.54
Selenium Total	-	0.00500	0.35
Silver Total	0.0050	0.00110	0.08
Zinc Total	0.1750	0.08000	5.63
Chromium Total	0.0500	0.01000	0.70
Cyanide Total	0.0410	0.00500	0.35
Arsenic	0.0030	0.00500	0.35
Molybdenum	999999.0000	0.00300	0.21
Beryllium	999999.00	0.00500	0.35

*EPA Page 3-59 of 833-B87-202

**Domestic concentrations are the smaller of either EPA Typical Levels or average influent values reported in the 2008 Annual Report dated May 2009 except Molybdenum (EPA Method 200.8 Detection Level used for Molybdenum).

CALCULATIONS OF ARKANSAS WATER QUALITY-BASED EFFLUENT LIMITATIONS

For an Arkansas River/Stream

(Reserved)

STEP 1: INPUT TWO LETTER CODE FOR ECOREGION (Use Code at Right) — OH

Basin Name — AR River

FACILITY

Permittee	FYVL West
NPDES Permit No.	AR0050288
Outfall No.(s)	001
Plant Ave Flow (MGD)	5.07
SIUs Ave Flow (MGD)	0.00
Domestic Flow (MGD)	5.07
Plant Design Flow (MGD)	10.00
Plant Design Flow (cfs)	15.45

RECEIVING STREAM

Is this a large river? (see list at right)(enter "1" if yes, "0" if no; make entry as a number)	0
Name of Receiving Stream:	Goose Creek
Waterbody Segment Code No.	3J
Is this a lake or reservoir? (enter '1' if yes, '0 ' = no; make entry as a number)	0
Is seasonal critical flow applicable (1=yes, 0=no); see Reg 2 page 1-3 for details.	0
(Reserved) DO NOT INPUT DATA INTO CELL H25, H26 & H27....LEAVE BLANK=>	
(Reserved)	
(Reserved) (Reserved)	
(Reserved)	(Reserved)
(Reserved)	(Reserved)
(Reserved)	(Reserved)
Ecoregion TSS (mg/l) (For Large River, See List to Right)	2.50
Ecoregion Hardness (mg/l)	148.00
Enter 7Q10 (cfs) (Reserved)	0.00 (Reserved)
Long Term Ave / Harmonic Mean Flow (cfs)	0.00 (Reserved) (Reserved)
Using Diffusers (Yes/No)	No
pH (Avg)	7.10
Percent (%) of 7Q10 for Chronic Criteria	0.67
Percent (%) of 7Q10 for Acute Criteria	0.33
Water Effect Ration (WER)	1.00
EPA Statistical Factor for Data (enter 2.13 for <20; enter 1 for >20)	2.13
Ave Monthly Limit LTA Multiplier (Ref: page 103 TSD for WQ-Based Toxics Control)	1.55
Max Daily Limit LTA Multiplier (Ref: " " " ")	3.11

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Gulf Coastal Eco (GC) =	5.5 mg/l	White (Above Beaver Lake)	2.5 mg/l
Delta Ecoregion (DL) =	8.0 mg/l	White (Below Bull Shoals to Black Riv)	3.3 mg/l
		White (From Black River to Mouth)	18.5 mg/l
		St. Francis River	18.0 mg/l
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		Red River	33.0 mg/l

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Large Rivers

Mississippi River, Arkansas River, Red River

White (Below confluence with Black River)

Ouachita (Below confluence with Little Miss. River)

For industrial and federal facility, use the highest monthly average flow for the past 24 months. For POTWs, use the design flow.

#VALUE! => No violation or Not Applicable

WQ Limits for the	*FYVL West*
	Aquatic Life
	AML, ug/l
Cadmium Total	7.00
Chromium (hex)	11.81
Copper Total	41.08
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Mercury Total	0.01
Nickel Total	422.02
Selenium Total	5.58
Silver Total	19.95
Zinc Total	372.89
Chromium (Tri)	1255.02
Cyanide Total	5.80
Beryllium Total	5.91
Arsenic	342.39

FYVL West MAHC

Pollutant	% Rem***	Water Quality	Water Quality*	Sludge	Sludge+	Inhibition**	Inhibition++	MAHL	MAHC	Domestic	Allocation for %SF	MAIL	Max Inf Exceeded	Max Effluent
		mg/l	lbs/day	mg/kg	lbs/day	mg/l	lbs/day	lbs/day	mg/l	lbs/day	lbs/day^	lbs/day	MAHC	vs WQS(mg/l)
Cadmium Total	67	0.0070	0.896	85	########	1.00	42.28	0.896	0.02120	0.02	0.67	0.651	No	No
Copper Total	91	0.0411	19.3	4300	########	1.00	42.28	19.3	0.45644	1.47	14.48	13.009	No	No
Lead Total	75	0.0187	3.167	840	########	1.00	42.28	3.167	0.07491	0.10	2.38	2.274	No	No
Mercury Total	60	0.00001	0.0014	57	########	0.10	4.23	0.0014	0.00003	0.3580	0.0011	0.000	No	No
Nickel Total	50	0.4220	35.689	420	########	1.00	42.28	35.689	0.84404	0.31	26.77	26.453	No	No
Selenium Total	50	0.0056	0.472	100	########	0.20	8.46	0.472	0.01116	0.21	0.35	0.142	No	No
Silver Total	77	0.0200	3.668	0	0.00	0.25	10.57	3.668	0.08674	0.09	2.75	2.659	No	No
Zinc Total	76	0.3729	65.696	7500	########	0.300	12.69	12.685	0.30000	5.43	9.51	4.088	No	No
Chromium Total	82	1.2550	294.816	3000	########	1.00	42.28	42.284	1.00000	0.42	31.71	31.290	No	No
Cyanide Total	69	0.0058	0.792	0	0.00	0.10	4.23	0.792	0.01872	0.21	0.59	0.382	No	No
Arsenic	45	0.3424	26.323	75	########	0.10	4.228	4.228	0.10000	0.02	3.17	3.150	No	No
Molybdenum	50	0.0000	0.000	75	########	0.20	8.46	8.457	0.20000	0.01	6.34	6.330	No	No
Beryllium	50	0.005915	0.500	0	0.00	0.10	4.23	0.500	0.01183	0.02	0.38	0.354	No	No

Dry tons/day of sludge **** 999999999.00 Saftey Factor 0.25

* lbs/day = mg/l * 8.34 * average flow / (1-%Rem)
** Page 3-44 of EPA 833B87202 Be est @ 0.10 mg/l.
+ lbs/day = (dry tons/day * 0.002 * critria(mg/kg))/ % Rem
++ lbs/day = mg/l * Flow * 8.34
^ lbs/day = (1 - SF) * MAHL
MAIL = Maximum allowable industrial loading = Allocation for % SF - Domestic
***Rem Eff from Page 3-56 EPA 833B87202, Be & Mo est @ 50; Cu,Pb, Ni, Ag & Zn from "Rem" spreadsheet in this Workbook
**** No Historical Data available on Sludge Production

FYVL West — REMOVAL EFFICIENCIES (% REM)

Influent

Date	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
06/26/08		0.0420	0.0036		0.0100		0.0021	0.2000					
09/18/08		0.0260	0.0020		0.0066		0.0013	0.0750					
12/12/08		0.0360	0.0016		0.0057		0.0031	0.1100					
Detection Level (DL)	0.0005	0.0005	0.0005	0.000005	0.0005	0.0050	0.0005	0.0200	0.0100	0.0100	0.0005	0.0100	0.0005
Average	#DIV/0!	0.03467	0.00240	#DIV/0!	0.00743	#DIV/0!	0.00217	0.12833	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Maximum	0.0000	0.0420	0.0036	0.0000	0.0100	0.0000	0.0031	0.2000	0.0000	0.0000	0.0000	0.0000	0.0000
All Concs > DL (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Effluent

Date	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
06/26/08		0.0011	0.0005		0.0037		0.0005	0.0250					
09/18/08		0.0046	0.0005		0.0047		0.0005	0.0310					
12/12/08		0.0034	0.00081		0.0027		0.0005	0.0370					
Detection Level	0.0005	0.0005	0.0005	0.000005	0.0005	0.0050	0.0005	0.0200	0.0100	0.0100	0.0005	0.0100	0.0005
Average	#DIV/0!	0.00303	0.00060	#DIV/0!	0.00370	#DIV/0!	0.00050	0.03100	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Maximum	0.0000	0.0046	0.0008	0.0000	0.0047	0.0000	0.0005	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000
All Concs > DL (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

% Rem

	Cadmium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Zinc	Chromium	Cyanide	Arsenic	Molydenur	Beryllium
Average	#DIV/0!	91	75	#DIV/0!	50	#DIV/0!	77	76	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
EPA % REM	67	86	61	60	42	50	75	79	82	69	45	50	50

Note: The engineer considered only the pollutants with concentrations in the influent well above the method detection level.

Domestic Calculations for FYVL West

Pollutants	EPA, P3-59* mg/l	Avg Reported** mg/l	Loading lbs/day
Cadmium Total	0.0030	0.00050	0.02
Copper Total	0.0607	0.03467	1.47
Lead Total	0.0490	0.00240	0.10
Mercury Total	0.0003	0.00847	0.36
Nickel Total	0.0210	0.00743	0.31
Selenium Total	-	0.00500	0.21
Silver Total	0.0050	0.00217	0.09
Zinc Total	0.1750	0.12833	5.43
Chromium Total	0.0500	0.01000	0.42
Cyanide Total	0.0410	0.00500	0.21
Arsenic	0.0030	0.00050	0.02
Molybdenum	999999.0000	0.00030	0.01
Beryllium	999999.00	0.00050	0.02

*EPA Page 3-59 of 833-B87-202

**Domestic concentrations are the smaller of either EPA Typical Levels or average influent values reported in the 2008 Annual Report dated May 2009 except Molydendum (EPA Method 200.8 Detection Level used for Molybdenum).