

Alabama Department of Environmental Management
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MARCH 14, 2019 1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

HONORABLE DARRIO MELTON
MAYOR
CITY OF SELMA
POST OFFICE BOX 326
SELMA AL 36701

Re: DRAFT LOCAL LIMITS
SELMA WATERWORKS AND SEWER BOARD
VALLEY CREEK WWTP
NPDES PERMIT NO. AL0022578

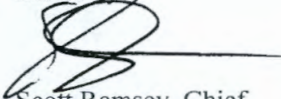
Dear Mayor Melton:

This letter is to provide notification that ADEM has revised the draft local limits document for the Selma Valley Creek WWTP. This revision is based on the sampling data that you provided as an attachment to your March 8, 2019 letter. A copy of this draft along with supporting information is attached for your review and comment. ADEM is requesting that your comments be received no later than 30 days from the date of this letter.

Following evaluation of any additional information provided, revised draft local limits will be developed if needed. If your facility has no further comments and does not wish to establish a sampling program, ADEM will proceed with the development of final local limits based on the attached revised draft. After consideration of any comments received during the public notice period, a final determination on the local limits will be made. All permits issued to industrial users must comply with adopted local limits.

Should you have any questions about this process, please contact Wayne Holt by email at WHolt@adem.alabama.gov or by phone at (334) 271-7847.

Sincerely,



Scott Ramsey, Chief
Industrial Section
Industrial/Municipal Branch
Water Division

Attachments: Draft Local Limits
Rationale for Local Limits
Local Limits/Pass Through Calculations

CC: Bush Hog Inc
Global Security Glazing
R L Zeigler Company
Sandra Lee
Wayne Holt



LOCAL LIMIT/ PASS THROUGH CALCULATIONS

POTW NAME: Selma Valley Creek WWTP
 NPDES PERMIT NUMBER: AL0022578

DATE PREPARED: 12/14/2018
 PREPARED BY: Ed Hughes
 REVISED : 3/13/2019

STREAM DATA AND POTW FLOW DATA					
RECEIVING STREAM CLASSIFICATION	=	F & W	0	RECEIVING STREAM TIDALLY INFLUENCED =	No
POTW DESIGN FLOW	=		6 MGD		
FLOW FROM OTHER CONTRIBUTORS	=		MGD		
DOMESTIC FLOW	=		5.58 MGD		
7010	=		3840 CFS	OR	2480.64 MGD
1010	=		2880 CFS	OR	1860.48 MGD
702	=		CFS	OR	0.00 MGD
ANNUAL AVG FLOW	=		26170 CFS	OR	16905.82 MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=		41 MG/L AS CaCO3		

ALLOWABLE LOADING TO STREAM BASED ON WATER QUALITY AND HH STANDARDS										
PARAMETER	1) CHRONIC TOXICITY (MG/L)	SW CHRONIC TOXICITY (MG/L)	2) MAX W Q INSTREAM (LBS/D)	3) ACUTE TOXICITY (MG/L)	SW ACUTE TOXICITY (MG/L)	4) MAX W Q INSTREAM (LBS/D)	5) HUMAN HEALTH (MG/L)	6) MAX W Q INSTREAM (LBS/D)	7) WQ / HH BASED DISC LEVEL (LBS/D)	PARAMETER
ANTIMONY, TOTAL RECOVERABLE	----	----	----	----	----	----	0.3733333	52656.643	52656.643	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	----	5419.489	0.3400	----	9220.541	0.00030	42.741	42.741	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0001	----	11.624	0.0008	----	55.778	----	----	11.624	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0357	----	3526.411	0.2745	----	20348.607	----	----	3526.411	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	228.124	0.0160	----	249.063	----	----	228.124	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0042	----	223.446	0.0058	----	232.287	----	----	223.446	COPPER, TR
CYANIDE, FREE	0.0052	----	107.841	0.0220	----	342.462	9.3333	193560.06	107.841	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0009	----	94.809	0.0242	----	1826.195	----	----	94.809	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	0.824	0.0024	----	123.707	0.0000424	0.880	0.82405	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0245	----	1004.525	0.2202	----	6788.561	0.9929078	20591.495	1004.525	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	10.369	0.0020	----	31.133	2.4305556	50406.265	10.369	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0007	----	10.804	----	----	10.804	SILVER, TR
ZINC, TOT RECOVERABLE	0.0555	----	3487.948	0.0551	----	2596.823	14.8936170	308872.43	2596.823	ZINC, TR

		Antimony	Arsenic	Cadmium	Chromium, To	Chromium, VI	Copper	Cyanide	Lead	Mercury	Molybdenum	Nickel	
DOMESTIC	DATA VALUE	0.0000	0.0003	0.0005	0.0007	0.0000	0.0074	0.0100	0.0007	0.000008	0.0000	0.0014	
	LIT VALUE	0.0010	0.0010	0.0030	0.0500	0.0000	0.0600	0.0400	0.0500	0.0000	0.0000	0.0200	
		Selenium	Silver	Zinc									
	DATA VALUE	0.0000	0.0000	0.0407									
	LIT VALUE	0.0000	0.0100	0.1800									

TYPE OF TREATMENT =	3	Trickling filter	SLUDGE DISPOSAL	
TREATMENT INCLUDE NITIFICATION?	No		DOES THE POTW HAVE SECONDARY CLARIFICATION?	Yes
			AVERAGE TONS OF SLUDGE PER DAY (DRY WEIGHT)	1.1
			IS SLUDGE LAND APPLIED?	Yes
			GROWTH ALLOCATION	
			% ALLOCATION RESERVED FOR FUTURE GROWTH =	10

PARAMETER	7) MAX WQ INSTREAM (LBS/D)	8) ALLOCATION FROM BACKGROUND (LBS/D)	9) ALLOWABLE DISC FROM POTW (LBS/D)	10) REMOVAL RATE (%)	11) ALLOWABLE DISCHARGE (WQ / HH) (LBS/D)	12) INHIBITION TRESHOLD CONC (MG/L)	13) ALLOWABLE DISCHARGE (INHIBITION) (LBS/D)	14) ALLOWABLE DISCHARGE (SLUDGE) (LBS/D)	15) ALLOWABLE DISCHARGE LOCAL LIMIT (LBS/D)	16) DOMESTIC INFLUENT LOADING (LBS/D)	17) INDUSTRIAL INFLUENT LOADING (LBS/D)	18) AVAILABLE CAPACITY FOR GROWTH (LBS/D)	LIMITING FACTOR
ANTIMONY, TOT RECOVERABLE	52656.6428	0	52656.6428	0	52656.6428				52656.6428	0.0465	0.0000	47390.9366	WATER QUALITY
ARSENIC, TRIVALENT	42.7408	0	42.7408	55	94.9795	0.100	5.0040	0.3	0.3000	0.0140	0.0000	0.2574	SLUDGE
CADMIUM, TOT RECOVERABLE	11.6245	0	11.6245	68	36.3265	1.000	50.0400	0.275	0.2750	0.0233	0.0088	0.2187	SLUDGE
CHROMIUM, TOT RECOVERABLE	3526.4113	0	3526.4113	55	7836.4695	5.000	250.2000	-----	250.2000	0.0326	0.2139	224.9582	INHIBITION
CHROMIUM, HEXVALENT	228.1244	0	228.1244	55	506.9430	1.000	50.0400	-----	50.0400	0.0000	0.0000	45.0360	INHIBITION
COPPER, TOTAL RECOVERABLE	223.4463	0	223.4463	61	572.9391	1.000	50.0400	15.50819672	15.5082	0.3444	0.2590	13.4144	SLUDGE
CYANIDE, FREE	107.8406	0	107.8406	59	263.0259	0.100	5.0040	-----	5.0040	0.4654	0.0813	4.0116	INHIBITION
LEAD, TOT RECOVERABLE	94.8093	0	94.8093	55	210.6874	1.000	50.0400	3.36	3.3600	0.0326	0.0538	2.9463	SLUDGE
MERCURY, TOT RECOVERABLE	0.8240	0	0.8240	50	1.6481	0.100	5.0040	0.2508	0.2508	0.0004	0.0000	0.2254	SLUDGE
MOLYBDENUM		0						0.165	0.1650	0.0000	0.0000	-----	SLUDGE
NICKEL, TOT RECOVERABLE	1004.5249	0	1004.5249	29	1414.8237	1.000	50.0400	3.186206897	3.1862	0.0652	0.2977	2.5410	SLUDGE
SELENIUM	10.3693	0	10.3693	50	20.7386			0.44	0.4400	0.0000	0.0000	0.3960	SLUDGE
SILVER, TOT RECOVERABLE	10.8043	0	10.8043	66	31.7773	0.250	12.5100	-----	12.5100	0.4654	0.0300	10.8131	INHIBITION
ZINC, TOT RECOVERABLE	2596.8232	0	2596.8232	67	7869.1613	1.000	50.0400	24.62686567	24.6269	1.8941	0.0000	20.4595	SLUDGE

Comments

Item 1: Allowable concentration instream based on above noted stream conditions and state standard to protect aquatic life from chronic toxicity.

Item 2: Mass of pollutant allowed instream based on above noted stream conditions and chronic criteria calculated as shown below:

Item 2 = stream 7Q10 x 8.34 x Item 1. If stream segment is tidally influenced, the more stringent of freshwater and saltwater criteria is used.

Item 3: Allowable concentration instream based above noted stream conditions and state standard to protect aquatic life from acute toxicity.

Item 4: Mass of pollutant allowed instream based on above noted stream conditions and acute criteria and calculated as shown below:

Item 4 = stream 1Q10 x 8.34 x Item 3. For LWF streams, Item 4 = stream 7Q2 x 8.34 x Item 3.

If stream segment is tidally influenced, the more stringent of freshwater and saltwater criteria is used.

Item 5: Allowable concentration instream based on above noted stream conditions and state human health standard for a stream with this use classification.

Item 6: Mass of pollutant allowed instream based on above noted stream condition, the human health standard and calculated as shown below:

Item 6 = Annual average stream flow x 8.34 x Item 5 (for carcinogens) and 7Q10 x 8.34 x Item 5 (for non-carcinogens).

Item 7: The most stringent of the requirements calculated in Items 2,4 and 6.

Item 8: Amount allocated to other facilities discharging to this stream segment.

Item 9: Remaining allocation available.

Item 10: Pollutant removal rates based on the treatment process.

Item 11: The calculated allowable discharge into the POTW based on water quality and human health concerns.

Item 12: Concentration of pollutant that could cause inhibition of biological processes utilized at the treatment plant.

Item 13: Allowable discharge into the POTW based on levels to prevent inhibition of biological treatment processes.

Item 14: Allowable discharge into the POTW based on levels to meet EPA 503 standards for land application of sludge, if sludge is land applied.

Item 15: Allowable discharge into the POTW based on the more stringent of Items 11, Item 13 and item 14 requirements. This column contains the Local Limits for this POTW.

Item 16: Domestic influent (lbs/d) based on domestic flow and sampled domestic influent data if available or literature values if not.

Item 17: Industrial influent (lbs/d) based on monthly average permit limits and actual average values for the past 2 to 5 years (depending on availability) for "monitor only" pollutants as shown on SIUs sheet. Values reported as less than detect are not included in average calculation.

Item 18: Available capacity remaining for new sources after subtracting capacity being utilized by industrial sources, domestic sources (including commercial sources and septage disposal) and capacity reserved for future growth.

LOCAL LIMITS

PUBLICLY OWNED TREATMENT WORKS: SELMA VALLEY CREEK WWTP

LOCATION: SELMA, ALABAMA
DALLAS COUNTY

PERMIT NUMBER: AL0022578

GENERAL PRETREATMENT PROHIBITIONS

No discharge to the Publicly Owned Treatment Works (POTW) shall exceed or otherwise violate the General Pretreatment Standards described in ADEM Administrative Code 335-6-5. Specifically the POTW shall ensure that discharges to their system comply with the following prohibitions to ensure protection of the treatment and collections systems and to ensure worker safety:

Pollutants which create a fire or explosion hazard including but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit;

Pollutants which will cause corrosive structural damage to the treatment works but in no case discharges with a pH lower than 5.0 S.U. unless the treatment works are specifically designed to accommodate such discharges;

Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers or other interference with the operation of the treatment works;

Any pollutant, including oxygen demanding pollutants released in a discharge of such volume or strength as to cause interference in the treatment works;

Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference, but in no case in such quantities that the temperature of the effluent at the treatment plant exceeds 104 degrees Fahrenheit unless the treatment plant is designed to accommodate such heat;

Pollutants which will result in the presence of toxic gases, vapors or fumes within the treatment works in a quantity that may cause acute worker health and safety problems;

Any trucked or hauled pollutants except at discharge points designated by the treatment works; and

Petroleum oil, nonbiodegradable cutting oil, or products of mineral origin in such amounts that will cause interference or pass through.

GENERAL PRETREATMENT STANDARDS AND LOCAL LIMITS

POLLUTANTS:

The total average daily loading of the substances from all sources shall not exceed the indicated mass listed below.

<u>Parameter</u>	<u>Allowable Average Daily Pollutant Load at Headworks of POTW</u> (lbs/day)
Arsenic, Trivalent	0.3000
Cadmium, Total Recoverable	0.2750
Chromium, Total Recoverable	250.2
Copper, Total Recoverable	15.51
Cyanide, Free	5.004
Lead, Total Recoverable	3.360
Mercury, Total Recoverable	0.2508
Nickel, Total Recoverable	3.186
Silver, Total Recoverable	12.51
Zinc, Total Recoverable	24.63

HYDRAULIC LOADING:

The hydraulic loading limit on an average basis is the design capacity of the treatment plant which is 6.0 million gallons per day.

ORGANIC LOADING:

The organic loading limit (CBOD₅) is the design capacity of the treatment plant which is 8357 pounds per day.

SOLIDS LOADING

The Total Suspended Solids loading limit (TSS) is the design capacity of the treatment plant which is 10,008 pounds per day.

EFFECTIVE DATE:

ISSUANCE DATE:

DRAFT

Alabama Department of Environmental Management

Rationale for Local Limits

Selma Valley Creek WWTP (AL0022578)
6.0 MGD Trickling filter facility
Selma/ Dallas County

Reissuance
Prepared Date: 12/14/2018
Prepared By: Ed Hughes
Revised: 3/13/2019

Nonconventional Pollutants:

Pass Through:

Allowable pollutant loadings were based on state water quality standards applicable to streams with a use designation of Fish & Wildlife. Local limits calculations were performed using a receiving stream 7Q10 of 3840 cfs, 1Q10 of 2880 cfs, an annual average flow of 26,170 cfs and a stream hardness of 41 mg/l as CaCO₃. The treatment plant removal rates and untreated domestic sewage pollutant concentrations were based on Best Professional Judgment using literature values and EPA recommended levels as the basis unless site specific data was available. Calculations estimate the allowable quantity of heavy metals (measured as Total Recoverable) and Free Cyanide that can be discharged into the POTW to ensure that state water quality standards for aquatic toxicity and human health criteria are met in the receiving stream during critical flow conditions. Because only the portion of heavy metals present in dissolved form is "bioavailable" to aquatic life, the calculations which evaluate aquatic toxicity take into account the relationship between "dissolved" metals and metals measured using the Total Recoverable test procedure. The allowable pollutant loadings based on pass through concerns are located in column 11 of the Local Limits-Pass Through (LL-PT) spreadsheet.

Interference:

The Department evaluated the potential for processes at the POTW to be inhibited as result of the pollutant loading entering the treatment works. Inhibition values were based on Best Professional Judgment using literature values and EPA recommended levels as the basis unless site specific information was provided by the POTW. The allowable pollutant loadings based on inhibition concerns are located in column 13 of the LL-PT spreadsheet.

Sludge Disposal:

The POTW disposes of sludge using land application. According to their NPDES permit application, the facility generates 1,173 pounds per day (ppd) of biosolids based on an average influent flow of 3.2 MGD. This equates to 2199.8 ppd or 1.1 tons per day at the design flow of 6 MGD. This value was used in the development of local limits for this site. For POTWs that use land application as a means of disposal the LL-PT spreadsheet calculates the allowable pollutant loading to ensure that metal concentrations in the sludge comply with EPA 503 regulations for land application of biosolids. The results of these calculations are located in column 14 of the spreadsheet.

Column 15 of the LL-PT spreadsheet indicates the most stringent of the above three criteria. These loadings are considered the POTW's total headworks capacity for the pollutants of concern.

The LL-PT spreadsheet also lists the current loading of the pollutants of concern from domestic/commercial and industrial sources and determines the remaining capacity currently available. Domestic/commercial loadings are indicated in Columns 16 and current industrial loadings are shown in column 17 (a listing of each significant industrial user and their permit limits and average reported discharge level for pollutants without permit limits is shown on the attached Significant Industrial Users sheet). Column 18 of that spreadsheet shows the remaining capacity after subtracting the current loadings. Negative values indicate that no additional capacity is available for these pollutants.

It should be noted that the available pollutant loadings shown in column 18 have been reduced by 10%, which is the percent of total capacity reserved for future growth.

Conventional Pollutants

Temperature:

The Department is not aware of any specific circumstances related to this POTW which require a temperature limitation more stringent than general standards and prohibitions contained in ADEM Administrative code 335-6-5-.03(2)(e).

pH:

The Department is not aware of any specific circumstances related to this POTW which require a minimum pH limitation more stringent than general standards and prohibitions contained in ADEM Administrative code 335-6-5-.03(2)(b).

Hydraulic loading:

The hydraulic loading limit is the design capacity of the treatment plant as indicated by the POTW, 6.0 MGD.

Organic loading:

The organic loading limit (CBOD₅) is the design capacity of the treatment plant. This loading was calculated using the design flow of the POTW and an influent CBOD₅ concentration of 167 mg/l.

Total Suspended Solids loading

The Total Suspended Solids (TSS) loading was calculated using the design flow of the POTW and an influent TSS concentration of 200 mg/l.

While ADEM develops local limits and reviews compliance, POTWs are responsible for ensuring proper management of Significant Industrial Users and other sources to meet their NPDES limits and to prevent pass through and interference problems and to ensure compliance with the prohibitions contained in ADEM Administrative Code 335-6-5.03 for protection of the treatment works, collection system and worker safety. The POTWs' responsibilities include establishing any additional limitations via local ordinances, etc. to protect the POTW and comply with their permit.

Revision (3/13/19):

The POTW has provided influent data for their facility. Although the samples were collected at the influent and therefore included both domestic and industrial sources, the results are being used in this revision as the domestic concentration for this plant which is a conservative assumption. The previously calculated local limits were based on restrictions related to sludge disposal or inhibition concerns and are not affected by the use of the provided data; however, the available capacity for some pollutants is slightly increased due to the decreased loading from domestic sources.

LOCAL LIMIT/ PASS THROUGH CALCULATIONS

POTW NAME: Selma Valley Creek WWTP
 NPDES PERMIT NUMBER: AL0022578

DATE PREPARED: 12/14/2018
 PREPARED BY: Ed Hughes
 REVISED : 3/13/2019 5/28/2019

STREAM DATA AND POTW FLOW DATA						
RECEIVING STREAM CLASSIFICATION	=	F & W	0		RECEIVING STREAM TIDALLY INFLUENCED =	No
POTW DESIGN FLOW	=		6 MGD			
FLOW FROM OTHER CONTRIBUTORS	=		MGD			
DOMESTIC FLOW	=		5.58 MGD			
7010	=		3840 CFS	OR	2480.64 MGD	
1Q10	=		2880 CFS	OR	1860.48 MGD	
702	=		CFS	OR	0.00 MGD	
ANNUAL AVG FLOW	=		26170 CFS	OR	16905.82 MGD	
STREAM HARDNESS (DEFAULT VALUE 100)	=		41 MG/L AS CaCO3			

ALLOWABLE LOADING TO STREAM BASED ON WATER QUALITY AND HH STANDARDS										
PARAMETER	1) CHRONIC	SW CHRONIC	2) MAX W Q	3) ACUTE	SW ACUTE	4) MAX W Q	5) HUMAN	6) MAX W Q	7) WQ / HH	PARAMETER
	TOXICITY (MG/L)	TOXICITY (MG/L)	INSTREAM (LBS/D)	TOXICITY (MG/L)	TOXICITY (MG/L)	INSTREAM (LBS/D)	HEALTH (MG/L)	INSTREAM (LBS/D)	BASED DISC LEVEL (LBS/D)	
ANTIMONY, TOTAL RECOVERABLE	----	----	----	----	----	----	0.3733333	7742.402	7742.402	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	----	5419.489	0.3400	----	9220.541	0.00030	42.741	42.741	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0001	----	11.624	0.0008	----	55.778	----	----	11.624	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0357	----	3526.411	0.2745	----	20348.607	----	----	3526.411	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	228.124	0.0160	----	249.063	----	----	228.124	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0042	----	223.446	0.0058	----	232.287	----	----	223.446	COPPER, TR
CYANIDE, FREE	0.0052	----	107.841	0.0220	----	342.462	9.3333	193560.06	107.841	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0009	----	94.809	0.0242	----	1826.195	----	----	94.809	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	0.824	0.0024	----	123.707	0.0000424	0.880	0.82405	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0245	----	1004.525	0.2202	----	6788.561	0.9929078	20591.495	1004.525	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	10.369	0.0020	----	31.133	2.4305556	50406.265	10.369	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0007	----	10.804	----	----	10.804	SILVER, TR
ZINC, TOT RECOVERABLE	0.0555	----	3487.948	0.0551	----	2596.823	14.8936170	308872.43	2596.823	ZINC, TR

		Antimony	Arsenic	Cadmium	Chromium, To	Chromium, VI	Copper	Cyanide	Lead	Mercury	Molybdenum	Nickel	
DOMESTIC	DATA VALUE	0.0000	0.0003	0.0005	0.0007	0.0000	0.0074	0.0100	0.0007	0.000008	0.0000	0.0014	
	LIT VALUE	0.0010	0.0010	0.0030	0.0500	0.0000	0.0600	0.0400	0.0500	0.0000	0.0000	0.0200	
		Selenium	Silver	Zinc									
	DATA VALUE	0.0000	0.0000	0.0407									
	LIT VALUE	0.0000	0.0100	0.1800									

TYPE OF TREATMENT =	3	Trickling filter	SLUDGE DISPOSAL	
TREATMENT INCLUDE NITIFICATION?	No		DOES THE POTW HAVE SECONDARY CLARIFICATION?	Yes
			AVERAGE TONS OF SLUDGE PER DAY (DRY WEIGHT)	1.1
			IS SLUDGE LAND APPLIED?	Yes
GROWTH ALLOCATION				
			% ALLOCATION RESERVED FOR FUTURE GROWTH =	10

PARAMETER	7) MAX WQ INSTREAM (LBS/D)	8) ALLOCATION FROM BACKGROUND (LBS/D)	9) ALLOWABLE DISC FROM POTW (LBS/D)	10) REMOVAL RATE (%)	11) ALLOWABLE DISCHARGE (WQ / HH) (LBS/D)	12) INHIBITION TRESHOLD CONC (MG/L)	13) ALLOWABLE DISCHARGE (INHIBITION) (LBS/D)	14) ALLOWABLE DISCHARGE (SLUDGE) (LBS/D)	15) ALLOWABLE DISCHARGE LOCAL LIMIT (LBS/D)	16) DOMESTIC INFLUENT LOADING (LBS / D)	17) INDUSTRIAL INFLUENT LOADING (LBS/D)	18) AVAILABLE CAPACITY FOR GROWTH (LBS/D)	LIMITING FACTOR
ANTIMONY, TOT RECOVERABLE	7742.4023	0	7742.4023	0	7742.4023			7742.4023	0.0465	0.0000		6968.1202	WATER QUALITY
ARSENIC, TRIVALENT	42.7408	0	42.7408	55	94.9795	0.100	5.0040	0.3	0.3000	0.0140	0.0000	0.2574	SLUDGE
CADMIUM, TOT RECOVERABLE	11.6245	0	11.6245	68	36.3265	1.000	50.0400	0.275	0.2750	0.0233	0.0088	0.2187	SLUDGE
CHROMIUM, TOT RECOVERABLE	3526.4113	0	3526.4113	55	7836.4695	5.000	250.2000	-----	250.2000	0.0326	0.2139	224.9582	INHIBITION
CHROMIUM, HEXAVALENT	228.1244	0	228.1244	55	506.9430	1.000	50.0400	-----	50.0400	0.0000	0.0000	45.0360	INHIBITION
COPPER, TOTAL RECOVERABLE	223.4463	0	223.4463	61	572.9391	1.000	50.0400	15.50819672	15.5082	0.3444	0.2590	13.4144	SLUDGE
CYANIDE, FREE	107.8406	0	107.8406	59	263.0259	0.100	5.0040	-----	5.0040	0.4654	0.0813	4.0116	INHIBITION
LEAD, TOT RECOVERABLE	94.8093	0	94.8093	55	210.6874	1.000	50.0400	3.36	3.3600	0.0326	0.0538	2.9463	SLUDGE
MERCURY, TOT RECOVERABLE	0.8240	0	0.8240	50	1.6481	0.100	5.0040	0.2508	0.2508	0.0004	0.0000	0.2254	SLUDGE
MOLYBDENUM		0						0.165	0.1650	0.0000	0.0000	-----	SLUDGE
NICKEL, TOT RECOVERABLE	1004.5249	0	1004.5249	29	1414.8237	1.000	50.0400	3.186206897	3.1862	0.0652	0.2977	2.5410	SLUDGE
SELENIUM	10.3693	0	10.3693	50	20.7386			0.44	0.4400	0.0000	0.0000	0.3960	SLUDGE
SILVER, TOT RECOVERABLE	10.8043	0	10.8043	66	31.7773	0.250	12.5100	-----	12.5100	0.4654	0.0300	10.8131	INHIBITION
ZINC, TOT RECOVERABLE	2596.8232	0	2596.8232	67	7869.1613	1.000	50.0400	24.62686567	24.6269	1.8941	0.0000	20.4595	SLUDGE

Comments

Item 1: Allowable concentration instream based on above noted stream conditions and state standard to protect aquatic life from chronic toxicity.

Item 2: Mass of pollutant allowed instream based on above noted stream conditions and chronic criteria calculated as shown below:

Item 2 = stream 7Q10 x 8.34 x Item 1. If stream segment is tidally influenced, the more stringent of freshwater and saltwater criteria is used.

Item 3: Allowable concentration instream based on above noted stream conditions and state standard to protect aquatic life from acute toxicity.

Item 4: Mass of pollutant allowed instream based on above noted stream conditions and acute criteria and calculated as shown below:

Item 4 = stream 1Q10 x 8.34 x Item 3. For LWF streams, Item 4 = stream 7Q2 x 8.34 x Item 3.

If stream segment is tidally influenced, the more stringent of freshwater and saltwater criteria is used.

Item 5: Allowable concentration instream based on above noted stream conditions and state human health standard for a stream with this use classification.

Item 6: Mass of pollutant allowed instream based on above noted stream condition, the human health standard and calculated as shown below:

Item 6 = Annual average stream flow x 8.34 x Item 5 (for carcinogens) and 7Q10 x 8.34 x Item 5 (for non-carcinogens).

Item 7: The most stringent of the requirements calculated in Items 2, 4 and 6.

Item 8: Amount allocated to other facilities discharging to this stream segment.

Item 9: Remaining allocation available.

Item 10: Pollutant removal rates based on the treatment process.

Item 11: The calculated allowable discharge into the POTW based on water quality and human health concerns.

Item 12: Concentration of pollutant that could cause inhibition of biological processes utilized at the treatment plant.

Item 13: Allowable discharge into the POTW based on levels to prevent inhibition of biological treatment processes.

Item 14: Allowable discharge into the POTW based on levels to meet EPA 503 standards for land application of sludge, if sludge is land applied.

Item 15: Allowable discharge into the POTW based on the more stringent of Items 11, Item 13 and item 14 requirements. This column contains the Local Limits for this POTW.

Item 16: Domestic influent (lbs/d) based on domestic flow and sampled domestic influent data if available or literature values if not.

Item 17: Industrial influent (lbs/d) based on monthly average permit limits and actual average values for the past 2 to 5 years (depending on availability) for "monitor only" pollutants as shown on SIUs sheet. Values reported as less than detect are not included in average calculation.

Item 18: Available capacity remaining for new sources after subtracting capacity being utilized by industrial sources, domestic sources (including commercial sources and septage disposal) and capacity reserved for future growth.