



Alabama Department of Environmental Management
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APRIL 23, 2019 1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

MR ROY E LIGHT
GENERAL MANAGER
SCOTTSBORO WATER SEWER AND GAS BOARD
POST OFFICE BOX 550
SCOTTSBORO AL 35768

Re: REVISED DRAFT LOCAL LIMITS
SCOTTSBORO WATER SEWER AND GAS BOARD
SCOTTSBORO SOUTHSIDE WWTP
NPDES PERMIT NO. AL0031372

Dear Mr. Light:

Thank you for your April 18, 2019 letter which provided comments on draft local limits for the Scottsboro Southside WWTP.

Attached is a revised draft local limits document and rationale for your review. ADEM is requesting that any additional comments be received no later than 30 days from the date of this letter.

In addition we offer the following response to your comments:

1. ADEM calculates local limits based on the current design capacity of the treatment works. At such time as the plant expansion is completed for your facility, the Department will reissue local limits consistent with the increased plant capacity. To provide you with some insight as to the change in pollutant allocation following the expansion, we have included a spreadsheet based on a discharge of 15 MGD.
2. After receiving comments from other POTWs, the Department has modified the local limits document by removing the word "limit" as related to flow, CBOD and TSS. As currently written, the values listed in the local limits document are categorized as plant capacities based on the design of the POTW. Compliance with these parameters will be determined by the effluent limits established at the NPDES discharge location.
3. The rationale has been revised to list the correct hardness of 69.9 mg/l as CaCO₃. This is the value used in the spreadsheet to determine the proposed local limit requirements.

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 Rachel Stanaland by email at restanaland@adem.alabama.gov or by phone at (334) 279-3065.

Sincerely,



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

Attachments: Draft Local Limits
Rationale for Local Limits
Local Limits/Pass Through Calculations
List of Significant Industrial Users
Sampling for Local Limit Development

CC: Lozier Corp
Maples Industries Inc
Maple Industries
Polyamide High Performance Inc
Safetweave Inc
Dustin Stokes, ADEM
Rachel Stanaland, ADEM

LOCAL LIMITS

PUBLICLY OWNED TREATMENT WORKS: SCOTTSBORO SOUTHSIDE WWTP

LOCATION: SCOTTSBORO, ALABAMA
JACKSON COUNTY

PERMIT NUMBER: AL0031372

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	4.170
Cadmium, Total Recoverable	41.70
Chromium, Total Recoverable	208.5
Copper, Total Recoverable	41.70
Cyanide, Free	4.170
Lead, Total Recoverable	41.70
Mercury, Total Recoverable	3.114
Nickel, Total Recoverable	41.70
Silver, Total Recoverable	10.43
Zinc, Total Recoverable	208.5

HYDRAULIC LOADING:

The hydraulic loading on an average basis is the design capacity of the treatment plant which is 5.0 million gallons per day.

ORGANIC LOADING:

The organic loading (CBOD₅) is the design capacity of the treatment plant which is 6964 pounds per day.

SOLIDS LOADING

The Total Suspended Solids loading (TSS) is the design capacity of the treatment plant which is 8340 pounds per day.

EFFECTIVE DATE:

ISSUANCE DATE:

DRAFT

Alabama Department of Environmental Management

Rationale for Local Limits

Scottsboro Southside WWTP
5.0 MGD Activated sludge
Scottsboro/Jackson County

(AL0031372)

Reissuance
Prepared Date: 12/20/2018
Prepared By: Ed Hughes
Revised Date: 4/18/2019

Nonconventional Pollutants:

Pass Through:

Allowable pollutant loadings were based on state water quality standards applicable to streams with a use designation of Swimming/Fish & Wildlife. Local limits calculations were performed using a receiving stream 7Q10 of 5811 cfs, 1Q10 of 4358 cfs, an annual average flow of 38,739 cfs and a stream hardness of 69.9 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.

Scottsboro Southside WWTP is permitted to discharge 15 MGD. Currently the facility has not been expanded to handle this volume; therefore, local limits will be based on the present design capacity of 5 MGD.

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 landfilling. 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. Initial calculations estimate that no additional loading of Zinc above the domestic sewage concentration can be allowed. To address this, the Zinc monthly average limit for Maples Industries (IU083600045) is being reduced from 45 to 22 pounds per day in the 2019 reissuance of their SID permit and the SID permit for Maples Industries (IU083600437) is proposed to be modified to reduce the daily maximum Zinc limit from 2.6 mg/l to 2.0 mg/l. These changes create an available Zinc allocation of 1.911 pounds per day.

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, 5.0 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 Date (4/18/2019):

The rationale was changed to list the correct hardness value of 69.9 mg/l as CaCO₃. This is the hardness used to calculate the limits in the local limit spreadsheet.

LOCAL LIMIT/ PASS THROUGH CALCULATIONS

(PROPOSED LOCAL LIMITS AFTER PLANT EXPANSION TO 15 MGD)

POTW NAME: Scottsboro Southside WWTP
NPDES PERMIT NUMBER: AL0031372

DATE PREPARED: 12/20/2018
PREPARED BY: Ed Hughes
REVISED DATE: 3/22/2019

STREAM DATA AND POTW FLOW DATA					
RECEIVING STREAM CLASSIFICATION	=	F & W	0	RECEIVING STREAM TIDALLY INFLUENCED =	No
POTW DESIGN FLOW	=		15 MGD		
FLOW FROM OTHER CONTRIBUTORS	=		MGD		
DOMESTIC FLOW	=		11.945 MGD		
7Q10	=		5811 CFS	OR	3753.91 MGD
1Q10	=		4358 CFS	OR	2815.27 MGD
7Q2	=		CFS	OR	0.00 MGD
ANNUAL AVG FLOW	=		38739 CFS	OR	25025.39 MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=		69.9 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	77965.771	77965.771	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	----	4714.901	0.3400	----	8025.508	0.00030	63.284	63.284	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0002	----	25.543	0.0014	----	142.173	----	----	25.543	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0553	----	8273.555	0.4249	----	47763.454	----	----	8273.555	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	345.759	0.0160	----	377.671	----	----	345.759	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0066	----	534.266	0.0096	----	582.278	----	----	534.266	COPPER, TR
CYANIDE, FREE	0.0052	----	163.450	0.0220	----	519.298	9.3333	293371.64	163.450	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0017	----	259.477	0.0436	----	5000.311	----	----	259.477	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	1.249	0.0024	----	187.585	0.0000424	1.334	1.24898	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0384	----	2390.978	0.3459	----	16165.700	0.9929078	31209.749	2390.978	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	15.716	0.0020	----	47.209	2.4305556	76398.865	15.716	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0017	----	41.012	----	----	41.012	SILVER, TR
ZINC, TOT RECOVERABLE	0.0872	----	8307.803	0.0865	----	6188.143	14.8936170	468146.24	6188.143	ZINC, TR

		Antimony	Arsenic	Cadmium	Chromium, To	Chromium, VI	Copper	Cyanide	Lead	Mercury	Molybdenum	Nickel
DOMESTIC	DATA VALUE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	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	0.0000								
	LIT VALUE	0.0000	0.0100	0.1800								

TYPE OF TREATMENT =	2	Act Sludge	SLUDGE DISPOSAL
TREATMENT INCLUDE NITIFICATION?	No		DOES THE POTW HAVE SECONDARY CLARIFICATION?
			Yes
			AVERAGE TONS OF SLUDGE PER DAY (DRY WEIGHT)
			N/A
			IS SLUDGE LAND APPLIED?
			No
			GROWTH ALLOCATION
			% ALLOCATION RESERVED FOR FUTURE GROWTH =
			10

PARAMETER	7) MAX WO 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	77965.7708	0	77965.7708	0	77965.7708				77965.7708	0.0996	0.0000	70169.1040	WATER QUALITY
ARSENIC, TRIVALENT	63.2839	0	63.2839	45	115.0616	0.100	12.5100	-----	12.5100	0.0996	0.0000	11.1693	INHIBITION
CADMIUM, TOT RECOVERABLE	25.5429	0	25.5429	67	77.4029	1.000	125.1000	-----	77.4029	0.2989	0.3144	69.1106	WATER QUALITY
CHROMIUM, TOT RECOVERABLE	8273.5554	0	8273.5554	82	45964.1969	5.000	625.5000	-----	625.5000	4.9811	2.0679	556.6059	INHIBITION
CHROMIUM, HEXAVALENT	345.7594	0	345.7594	83	2033.8790	1.000	125.1000	-----	125.1000	0.0000	0.0000	112.5900	INHIBITION
COPPER, TOTAL RECOVERABLE	534.2658	0	534.2658	86	3816.1845	1.000	125.1000	-----	125.1000	5.9773	2.5033	104.9575	INHIBITION
CYANIDE, FREE	163.4499	0	163.4499	69	527.2578	0.100	12.5100	-----	12.5100	3.9849	0.9315	6.8343	INHIBITION
LEAD, TOT RECOVERABLE	259.4772	0	259.4772	61	665.3261	1.000	125.1000	-----	125.1000	4.9811	0.6308	107.5393	INHIBITION
MERCURY, TOT RECOVERABLE	1.2490	0	1.2490	60	3.1225	0.100	12.5100	-----	3.1225	0.0000	0.0000	2.8102	WATER QUALITY
MOLYBDENUM		0						-----	0.0000	0.0000	0.0000	-----	-----
NICKEL, TOT RECOVERABLE	2390.9782	0	2390.9782	42	4122.3763	1.000	125.1000	-----	125.1000	1.9924	2.8781	108.2065	INHIBITION
SELENIUM	15.7163	0	15.7163	50	31.4327			-----	31.4327	0.0000	0.0000	28.2894	WATER QUALITY
SILVER, TOT RECOVERABLE	41.0122	0	41.0122	75	164.0486	0.250	31.2750	-----	31.2750	0.9962	0.2902	26.9897	INHIBITION
ZINC, TOT RECOVERABLE	6188.1433	0	6188.1433	79	29467.3489	5.000	625.5000	-----	625.5000	17.9318	63.4160	489.7369	INHIBITION

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.

LOCAL LIMIT/ PASS THROUGH CALCULATIONS

POTW NAME: Scottsboro Southside WWTP

NPDES PERMIT NUMBER: AL0031372

DATE PREPARED: 12/20/2018

PREPARED BY: Ed Hughes

REVISED DATE: 3/22/2019 5/28/2019

STREAM DATA AND POTW FLOW DATA									
RECEIVING STREAM CLASSIFICATION	=	F & W	0		RECEIVING STREAM TIDALLY INFLUENCED =	No			
POTW DESIGN FLOW	=		5 MGD						
FLOW FROM OTHER CONTRIBUTORS	=		MGD						
DOMESTIC FLOW	=		1.945 MGD						
7Q10	=		5811 CFS	QR			3753.91 MGD		
1Q10	=		4358 CFS	OR			2815.27 MGD		
7Q2	=		CFS	OR			0.00 MGD		
ANNUAL AVG FLOW	=		38739 CFS	OR			25025.39 MGD		
STREAM HARDNESS (DEFAULT VALUE 100)	=		69.9 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	----	----	----	----	----	----	0.373333	11703.730	11703.730	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	----	4702.391	0.3400	----	7997.152	0.00030	63.259	63.259	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0002	----	25.475	0.0014	----	141.670	----	----	25.475	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0553	----	8251.603	0.4249	----	47594.695	----	----	8251.603	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	344.842	0.0160	----	376.337	----	----	344.842	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0066	----	532.848	0.0096	----	580.221	----	----	532.848	COPPER, TR
CYANIDE, FREE	0.0052	----	163.016	0.0220	----	517.463	9.3333	292593.24	163.016	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0017	----	258.789	0.0436	----	4982.644	----	----	258.789	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	1.246	0.0024	----	186.922	0.0000424	1.330	1.24567	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0384	----	2384.634	0.3459	----	16108.583	0.9929078	31126.941	2384.634	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	15.675	0.0020	----	47.042	2.4305556	76196.157	15.675	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0017	----	40.867	----	----	40.867	SILVER, TR
ZINC, TOT RECOVERABLE	0.0872	----	8285.760	0.0865	----	6166.279	14.8936170	466904.11	6166.279	ZINC, TR

		Antimony	Arsenic	Cadmium	Chromium, To	Chromium, VI	Copper	Cyanide	Lead	Mercury	Molybdenum	Nickel
DOMESTIC	DATA VALUE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	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	0.0000								
	LIT VALUE	0.0000	0.0100	0.1800								

TYPE OF TREATMENT =	2	Act Sludge	SLUDGE DISPOSAL	
TREATMENT INCLUDE NITIFICATION?	No		DOES THE POTW HAVE SECONDARY CLARIFICATION?	Yes
			AVERAGE TONS OF SLUDGE PER DAY (DRY WEIGHT)	N/A
			IS SLUDGE LAND APPLIED?	No
			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	11703.7297	0	11703.7297	0	11703.7297				11703.7297	0.0162	0.0000	10533.3422	WATER QUALITY
ARSENIC, TRIVALENT	63.2586	0	63.2586	45	115.0157	0.100	4.1700	-----	4.1700	0.0162	0.0000	3.7384	INHIBITION
CADMIUM, TOT RECOVERABLE	25.4752	0	25.4752	67	77.1975	1.000	41.7000	-----	41.7000	0.0487	0.3144	37.2032	INHIBITION
CHROMIUM, TOT RECOVERABLE	8251.6033	0	8251.6033	82	45842.2405	5.000	208.5000	-----	208.5000	0.8111	2.0679	185.0589	INHIBITION
CHROMIUM, HEXAVALENT	344.8420	0	344.8420	83	2028.4826	1.000	41.7000	-----	41.7000	0.0000	0.0000	37.5300	INHIBITION
COPPER, TOTAL RECOVERABLE	532.8483	0	532.8483	86	3806.0591	1.000	41.7000	-----	41.7000	0.9733	2.5033	34.4011	INHIBITION
CYANIDE, FREE	163.0162	0	163.0162	69	525.8588	0.100	4.1700	-----	4.1700	0.6489	0.9315	2.3307	INHIBITION
LEAD, TOT RECOVERABLE	258.7887	0	258.7887	61	663.5608	1.000	41.7000	-----	41.7000	0.8111	0.6308	36.2323	INHIBITION
MERCURY, TOT RECOVERABLE	1.2457	0	1.2457	60	3.1142	0.100	4.1700	-----	3.1142	0.0000	0.0000	2.8027	WATER QUALITY
MOLYBDENUM		0						-----	0.0000	0.0000	0.0000	-----	-----
NICKEL, TOT RECOVERABLE	2384.6343	0	2384.6343	42	4111.4384	1.000	41.7000	-----	41.7000	0.3244	2.8781	34.6477	INHIBITION
SELENIUM	15.6746	0	15.6746	50	31.3493			-----	31.3493	0.0000	0.0000	28.2143	WATER QUALITY
SILVER, TOT RECOVERABLE	40.8673	0	40.8673	75	163.4690	0.250	10.4250	-----	10.4250	0.1622	0.2902	8.9753	INHIBITION
ZINC, TOT RECOVERABLE	6166.2791	0	6166.2791	79	29363.2338	5.000	208.5000	-----	208.5000	2.9198	63.4160	127.9477	INHIBITION

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.