



Alabama Department of Environmental Management  
adem.alabama.gov

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Montgomery, Alabama 36130-1463  
(334) 271-7700 ■ FAX (334) 271-7950

HONORABLE JOHN L SMITH  
MAYOR  
CITY OF JACKSONVILLE  
330 CHURCH AVENUE SE  
JACKSONVILLE AL 36265

Re: REVISED DRAFT LOCAL LIMITS  
CITY OF JACKSONVILLE  
JACKSONVILLE WWTP  
NPDES PERMIT NO. AL0022586

Dear Mayor Smith:

This letter is to provide notification that ADEM has revised the draft local limits document for the Jacksonville WWTP. 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 Rachel Stanaland by email at [restanaland@adem.alabama.gov](mailto:restanaland@adem.alabama.gov) or by phone at (334) 279-3065.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Ramsey", is written over a horizontal line.

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

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

CC: Food Ingredients Technology Company  
General Dynamics  
Huron Valley Steel  
Lee Brass Foundry  
Solutia Inc  
Dustin Stokes  
Rachel Stanaland.



# LOCAL LIMITS

**PUBLICLY OWNED TREATMENT WORKS:** JACKSONVILLE WWTP  
**LOCATION:** JACKSONVILLE, ALABAMA  
CALHOUN COUNTY  
**PERMIT NUMBER:** AL0022586

## 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, Total Recoverable	0.0514
Cadmium, Total Recoverable	0.1708
Chromium, Total Recoverable	106.0
Copper, Total Recoverable	8.916
Cyanide, Free	0.9072
Lead, Total Recoverable	1.694
Mercury, Total Recoverable	0.0054
Nickel, Total Recoverable	2.700
Silver, Total Recoverable	0.6161
Zinc, Total Recoverable	25.63

No future loading above the domestic wastewater concentration of Cyanide will be allowed. All new or expanding industrial dischargers containing this pollutant shall be limited as indicated below:

<u>Parameter</u>	<u>Allowable Average Concentration</u>
	(mg/l)
Cyanide, Free	0.04

**HYDRAULIC LOADING:**

The hydraulic loading limit on an average basis is the design capacity of the treatment plant which is 3.5 million gallons per day.

**ORGANIC LOADING:**

The organic loading limit (CBOD<sub>5</sub>) is the design capacity of the treatment plant which is 4875 pounds per day.

**SOLIDS LOADING**

The Total Suspended Solids loading limit (TSS) is the design capacity of the treatment plant which is 5838 pounds per day.

**EFFECTIVE DATE:**

**ISSUANCE DATE:**

**DRAFT**

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**Alabama Department of Environmental Management**

## Rationale for Local Limits

Jacksonville WWTP (AL0022586)  
3.5 MGD Activated sludge facility  
Jacksonville/ Calhoun County

Reissuance  
Prepared Date: 11/1/2018  
Prepared By: Ed Hughes  
Revised Date: 1/18/2019

### Nonconventional Pollutants:

#### Pass Through:

Allowable pollutant loadings were based on state water quality standards applicable to streams with a use designated of Fish & Wildlife. Local limits calculations were performed using a receiving stream 7Q10 of 4.62 cfs, 1Q10 of 3.47 cfs, an annual average flow of 11.9 cfs and a stream hardness of 100 mg/l as CaCO<sub>3</sub>. 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.

There are three small WWTPs downstream of this outfall. They serve a school, a shopping mall and a mobile home park. Pollutant loadings from these sources were not considered in the local limit calculations for Jacksonville due to the nature of the wastes (no industrial or significant commercial sources), small design flows and in view of the distance from Jacksonville’s outfall to their discharge points.

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 by land application. Based on information provided by the POTW’s annual MWPP report, 266.2 tons of sludge are disposed on an annual basis. This quantity is generated based on an average influent flow of 1.9 MGD. This equates to 1.34 tons per day at the design effluent flow of 3.5 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. Specifically, these calculations estimate that no additional loading of Cyanide above the domestic sewage concentration can be allowed; therefore, new and expanded discharges shall be limited to domestic sewage concentrations.

The limiting factor for this pollutant is shown below:

<u>Parameter</u>	<u>Limiting Factor</u>
Cyanide, Free	Water Quality

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, 3.5 MGD.

#### Organic loading:

The organic loading limit (CBOD<sub>5</sub>) is the design capacity of the treatment plant. This loading was calculated using the design flow of the POTW and an influent CBOD<sub>5</sub> 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 (1/17/2019):**

In this revision the local limit for Chromium was increased after the local limit spreadsheet was modified to remove CFR 503 related limits which were not applicable to this pollutant. Second, the quantity of sludge disposed was changed from the spreadsheet default value to the level reported in the POTW's annual MWSS report (and adjusted to account for the current influent flow as compared to the design influent flow level). This resulted in a reduction in local limits for Nickel and Zinc.

**LOCAL LIMIT/ PASS THROUGH CALCULATIONS**

POTW NAME: **Jacksonville WWTP**  
 NPDES PERMIT NUMBER: **AL0022586**

DATE PREPARED: **11/1/2018**  
 PREPARED BY: **Ed Hughes**  
 REVISED DATE: **1/17/2019**

STREAM DATA AND POTW FLOW DATA					
RECEIVING STREAM CLASSIFICATION	=	F & W	0	RECEIVING STREAM TIDALLY INFLUENCED =	No
POTW DESIGN FLOW	=		3.5 MGD		
FLOW FROM OTHER CONTRIBUTORS	=		MGD		
DOMESTIC FLOW	=		3.475 MGD		
7Q10	=		4.62 CFS	OR	2.98 MGD
1Q10	=		3.47 CFS	OR	2.24 MGD
7Q2	=		CFS	OR	0.00 MGD
ANNUAL AVG FLOW	=		11.9 CFS	OR	7.89 MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=		100 MGL 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 (MGL)	TOXICITY (MGL)	INSTREAM (LBS/D)	TOXICITY (MGL)	TOXICITY (MGL)	INSTREAM (LBS/D)	HEALTH (MGL)	INSTREAM (LBS/D)	BASED DISC LEVEL (LBS/D)	
ANTIMONY, TOTAL RECOVERABLE	----	----	----	----	----	----	0.3733333	34.833	34.833	ANTIMONY, TR
ARSENIC, TOT RECOVERABLE	0.1500	----	14.133	0.3400	----	28.364	0.00030	0.028	0.028	ARSENIC, TR
CADMIUM, TOT RECOVERABLE	0.0002	----	0.056	0.0020	----	0.409	----	----	0.056	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0741	----	19.087	0.5698	----	129.920	----	----	19.087	CHROMIUM, TR
CHROMIUM, HEXVALENT	0.0110	----	0.595	0.0160	----	0.766	----	----	0.595	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0090	----	1.248	0.0134	----	1.655	----	----	1.248	COPPER, TR
CYANIDE, FREE	0.0052	----	0.281	0.0220	----	1.053	9.3333	504.76	0.281	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0025	----	0.661	0.0646	----	15.012	----	----	0.661	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	0.002	0.0024	----	0.381	0.0000424	0.002	0.00215	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0520	----	5.569	0.4682	----	44.399	0.9929078	53.697	5.569	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	0.027	0.0020	----	0.096	2.4305556	131.447	0.027	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0032	----	0.154	----	----	0.154	SILVER, TR
ZINC, TOT RECOVERABLE	0.1181	----	19.361	0.1172	----	17.004	14.8936170	805.46	17.004	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)	1.35
			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	34.8331	0	34.8331	0	34.8331				34.8331	0.0290	0.0000	31.3237	WATER QUALITY
ARSENIC, TOT RECOVERABLE	0.0283	0	0.0283	45	0.0514	0.100	2.9190	0.45	0.0514	0.0290	0.0000	0.0202	WATER QUALITY
CADMIUM, TOT RECOVERABLE	0.0564	0	0.0564	67	0.1708	1.000	29.1900	0.342537313	0.1708	0.0869	0.0542	0.0267	WATER QUALITY
CHROMIUM, TOT RECOVERABLE	19.0866	0	19.0866	82	106.0365	5.000	145.9500	-----	106.0365	1.4491	0.3565	93.8078	WATER QUALITY
CHROMIUM, HEXAVALENT	0.5949	0	0.5949	83	3.4994	1.000	29.1900	-----	3.4994	0.0000	0.0000	3.1494	WATER QUALITY
COPPER, TOTAL RECOVERABLE	1.2483	0	1.2483	86	8.9163	1.000	29.1900	13.5	8.9163	1.7389	0.4316	6.0713	WATER QUALITY
CYANIDE, FREE	0.2812	0	0.2812	69	0.9072	0.100	2.9190	-----	0.9072	1.1593	0.0083	-0.2344	WATER QUALITY
LEAD, TOT RECOVERABLE	0.6607	0	0.6607	61	1.6941	1.000	29.1900	3.718032787	1.6941	1.4491	0.0897	0.1398	WATER QUALITY
MERCURY, TOT RECOVERABLE	0.0021	0	0.0021	60	0.0054	0.100	2.9190	0.2565	0.0054	0.0000	0.0000	0.0048	WATER QUALITY
MOLYBDENUM		0						0.2025	0.2025	0.0000	0.0000	-----	SLUDGE
NICKEL, TOT RECOVERABLE	5.5694	0	5.5694	42	9.6025	1.000	29.1900	2.7	2.7000	0.5796	0.4962	1.4617	SLUDGE
SELENIUM	0.0270	0	0.0270	50	0.0541			0.54	0.0541	0.0000	0.0000	0.0487	WATER QUALITY
SILVER, TOT RECOVERABLE	0.1540	0	0.1540	75	0.6161	0.250	7.2975	-----	0.6161	0.2898	0.0500	0.2487	WATER QUALITY
ZINC, TOT RECOVERABLE	17.0036	0	17.0036	79	80.9697	1.000	29.1900	25.63291139	25.6329	5.2167	0.3086	18.0969	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 LIMIT/ PASS THROUGH CALCULATIONS**

POTW NAME: **Jacksonville WWTP**  
 NPDES PERMIT NUMBER: **AL0022586**

DATE PREPARED: **11/1/2018**  
 PREPARED BY: **Ed Hughes**  
 REVISED DATE: **5/28/2019**

STREAM DATA AND POTW FLOW DATA						
RECEIVING STREAM CLASSIFICATION	=	F & W	0		RECEIVING STREAM TIDALLY INFLUENCED =	No
POTW DESIGN FLOW	=		3.5 MGD			
FLOW FROM OTHER CONTRIBUTORS	=		MGD			
DOMESTIC FLOW	=		3.475 MGD			
7Q10	=		4.62 CFS	OR		2.98 MGD
1Q10	=		3.47 CFS	OR		2.24 MGD
7Q2	=		CFS	OR		0.00 MGD
ANNUAL AVG FLOW	=		11.9 CFS	OR		7.69 MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=		100 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	20.190	20.190	ANTIMONY, TR
ARSENIC, TOT RECOVERABLE	0.1500	----	14.133	0.3400	----	28.364	0.00030	0.028	0.028	ARSENIC, TR
CADMIUM, TOT RECOVERABLE	0.0002	----	0.056	0.0020	----	0.409	----	----	0.056	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0741	----	19.087	0.5698	----	129.920	----	----	19.087	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	0.595	0.0160	----	0.766	----	----	0.595	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0090	----	1.248	0.0134	----	1.655	----	----	1.248	COPPER, TR
CYANIDE, FREE	0.0052	----	0.281	0.0220	----	1.053	9.3333	504.76	0.281	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0025	----	0.661	0.0646	----	15.012	----	----	0.661	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	0.002	0.0024	----	0.381	0.0000424	0.002	0.00215	MERCURY, TR
MOLYBDENUM	----	----	----	----	----	----	----	----	----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0520	----	5.569	0.4682	----	44.399	0.9929078	53.697	5.569	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	0.027	0.0020	----	0.096	2.4305556	131.447	0.027	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0032	----	0.154	----	----	0.154	SILVER, TR
ZINC, TOT RECOVERABLE	0.1181	----	19.361	0.1172	----	17.004	14.8936170	805.46	17.004	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	<b>SLUDGE DISPOSAL</b>	
TREATMENT INCLUDE NITIFICATION?	No		DOES THE POTW HAVE SECONDARY CLARIFICATION?	Yes
			AVERAGE TONS OF SLUDGE PER DAY (DRY WEIGHT)	1.35
			IS SLUDGE LAND APPLIED?	Yes
			<b>GROWTH ALLOCATION</b>	
			% 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	20.1902	0	20.1902	0	20.1902				20.1902	0.0290	0.0000	18.1451	WATER QUALITY
ARSENIC, TOT RECOVERABLE	0.0283	0	0.0283	45	0.0514	0.100	2.9190	0.45	0.0514	0.0290	0.0000	0.0202	WATER QUALITY
CADMIUM, TOT RECOVERABLE	0.0564	0	0.0564	67	0.1708	1.000	29.1900	0.342537313	0.1708	0.0869	0.0542	0.0267	WATER QUALITY
CHROMIUM, TOT RECOVERABLE	19.0866	0	19.0866	82	106.0365	5.000	145.9500	-----	106.0365	1.4491	0.3565	93.8078	WATER QUALITY
CHROMIUM, HEXAVALENT	0.5949	0	0.5949	83	3.4994	1.000	29.1900	-----	3.4994	0.0000	0.0000	3.1494	WATER QUALITY
COPPER, TOTAL RECOVERABLE	1.2483	0	1.2483	86	8.9163	1.000	29.1900	13.5	8.9163	1.7389	0.4316	6.0713	WATER QUALITY
CYANIDE, FREE	0.2812	0	0.2812	69	0.9072	0.100	2.9190	-----	0.9072	1.1593	0.0083	-0.2344	WATER QUALITY
LEAD, TOT RECOVERABLE	0.6607	0	0.6607	61	1.6941	1.000	29.1900	3.718032787	1.6941	1.4491	0.0897	0.1398	WATER QUALITY
MERCURY, TOT RECOVERABLE	0.0021	0	0.0021	60	0.0054	0.100	2.9190	0.2565	0.0054	0.0000	0.0000	0.0048	WATER QUALITY
MOLYBDENUM		0						0.2025	0.2025	0.0000	0.0000	-----	SLUDGE
NICKEL, TOT RECOVERABLE	5.5694	0	5.5694	42	9.6025	1.000	29.1900	2.7	2.7000	0.5796	0.4962	1.4617	SLUDGE
SELENIUM	0.0270	0	0.0270	50	0.0541			0.54	0.0541	0.0000	0.0000	0.0487	WATER QUALITY
SILVER, TOT RECOVERABLE	0.1540	0	0.1540	75	0.6161	0.250	7.2975	-----	0.6161	0.2898	0.0500	0.2487	WATER QUALITY
ZINC, TOT RECOVERABLE	17.0036	0	17.0036	79	80.9697	1.000	29.1900	25.63291139	25.6329	5.2167	0.3086	18.0969	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.