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JUN 17 2020

MR WAYNE LIVINGSTON
GENERAL MANAGER
WATER WORKS AND SEWER BOARD OF THE CITY OF OXFORD
POST OFFICE BOX 3663
OXFORD AL 36203

Re: DRAFT LOCAL LIMITS
WATER WORKS AND SEWER BOARD OF THE CITY OF OXFORD
TULL C ALLEN WWTP
NPDES PERMIT NO. AL0058408

Dear Mr. Livingston:

The Alabama Department of Environmental Management (ADEM) is required by Administrative Rule 335-6-5-.03 to develop local limits for Publicly Owned Treatment Works (POTWs) receiving wastewater from significant industrial users which could adversely impact the operation or performance of the treatment works. These limits establish headworks loading levels for the pollutants of concern to ensure compliance with water quality standards in the POTW's receiving stream, prevent interference with the POTW collection/treatment system and protect existing sludge disposal practices. Because many POTWs have modernized or expanded their treatment plants since the last issuance of local limits, ADEM is currently in the process of updating these requirements.

In this regard, ADEM has developed draft local limits documents for the Tull C Allen 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.

ADEM rules also provide the opportunity for POTWs to reserve a portion of their hydraulic or treatment capacity for any pollutant. This initial draft assumed a reserved capacity of 10%. Please inform the Department if this assumption is consistent with current plans for future development. In addition we would appreciate your input on local issues such as other pollutants of concern that may be impacting your operation and that need to be addressed in the local limits program.

Following evaluation of any comments received, revised draft local limits will be developed. If your facility has no comments, ADEM will proceed with the development of final local limits based on the attached 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.

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Should you have any questions about this process, please contact Scott Jackson by email at scott.jackson@adem.alabama.gov or by phone at (334) 394-4366.

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

CC: Aerospace Coatings
Alaplate
Honeywell
Kronospan
Southern Metal
Southern Tool
Tape Craft
Shanda Torbert
Scott Jackson

LOCAL LIMITS

PUBLICLY OWNED TREATMENT WORKS: **OXFORD TULL C ALLEN WTP**

LOCATION: **OXFORD, ALABAMA**
TALLADEGA COUNTY

PERMIT NUMBER: **AL0058408**

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.

Parameter	Allowable Average Daily Pollutant Load at Headworks of POTW (lbs/day)
Arsenic, Trivalent	0.3400
Cadmium, Total Recoverable	0.3481
Chromium, Total Recoverable	187.7
Copper, Total Recoverable	17.13
Cyanide, Free	2.388
Lead, Total Recoverable	2.980
Mercury, Total Recoverable	0.0141
Nickel, Total Recoverable	18.51
Silver, Total Recoverable	0.9028
Zinc, Total Recoverable	37.53

HYDRAULIC LOADING:
The hydraulic loading on an average basis is the design capacity of the treatment plant, which is 4.5 million gallons per day.

ORGANIC LOADING:
The organic loading ($CBOD_5$) is the design capacity of the treatment plant which is 6268 pounds per day.

SOLIDS LOADING
The Total Suspended Solids loading (TSS) is the design capacity of the treatment plant, which is 7506 pounds per day.

EFFECTIVE DATE:

ISSUANCE DATE:

DRAFT

Alabama Department of Environmental Management

Rationale for Local Limits

Oxford Tull C Allen WWTP (AL0058408)
4.5 MGD Activated sludge
Oxford/ Talladega County

Reissuance
Prepared Date: 6/10/2020
Prepared By: Ed Hughes

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 64.85 cfs, 1Q10 of 58.55 cfs, an annual average flow of 358.53 cfs and a stream hardness of 69.2 mg/l as CaCO3. The 7Q10 and 1Q10 flows were calculated by adding the critical flow values determined at the upstream outfall location for Anniston (7Q10 = 45.04, 1Q10 = 43.19) to the additional stream flows into Chococcolocco Creek between the Anniston and Oxford discharge locations (7Q10 = 19.81, 1Q10 = 15.36). 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.

Anniston Choccolocco Creek WWTP's flow and pollutant loadings were taken into account in developing Oxford's local limits due to the proximity of the two discharges. Available metal allocations based on water quality concerns were shared between the dischargers. Pollutant loadings were calculated using the ratio of design flows (Anniston - 10.5 MGD : Oxford - 4.5 MGD, i.e. 70:30 ratio). Local Limit calculations did not consider NGC Industries because their discharge does not contain the pollutants of concern. Nor did it consider Anniston U S Army Depot's discharge because it is located downstream where the stream 7Q10 is considerably higher. The Depot's pollutant loading will be based solely on the additional stream flow that enters Choccolocco Creek below Oxford's outfall.

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 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.

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 is the design capacity of the treatment plant as indicated by the POTW, 4.5 MGD.

Organic loading:
The organic loading ($CBOD_5$) 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.

LOCAL LIMIT/ PASS THROUGH CALCULATIONS

POTW NAME: Oxford Tull C Allen WWTP

NPDES PERMIT NUMBER: AL0058408

DATE PREPARED: 6/10/2020

PREPARED BY: Ed Hughes

STREAM DATA AND POTW FLOW DATA						
RECEIVING STREAM CLASSIFICATION	=	F & W	0	RECEIVING STREAM TIDALLY INFLUENCED =		No
POTW DESIGN FLOW	=	4.5	MGD			
FLOW FROM OTHER CONTRIBUTORS	=	10.5	MGD			
DOMESTIC FLOW	=	4.0834	MGD			
7Q10	=	64.85	CFS	OR	41.893	MGD
1Q10	=	58.55	CFS	OR	37.823	MGD
7Q2	=		CFS	OR	0.000	MGD
ANNUAL AVG FLOW	=	358.53	CFS	OR	231.610	MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=	69.2	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	177.142	177.142	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	----	71.173	0.3400	----	149.786	0.00030	0.623	0.623	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0002	----	0.383	0.0014	----	2.628	----	----	0.383	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0548	----	123.867	0.4214	----	884.125	----	----	123.867	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	----	5.219	0.0160	----	7.049	----	----	5.219	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0065	----	7.996	0.0095	----	10.765	----	----	7.996	COPPER, TR
CYANIDE, FREE	0.0052	----	2.467	0.0220	----	9.692	9.3333	4428.56	2.467	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0017	----	3.874	0.0432	----	92.297	----	----	3.874	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	----	0.019	0.0024	----	3.501	0.0000424	0.020	0.01885	MERCURY, TR
MOLYBDENUM	----			----	----		----		----	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0381	----	35.787	0.3429	----	299.154	0.9929078	471.123	35.787	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	----	0.237	0.0020	----	0.881	2.4305556	1153.271	0.237	SELENIUM, TR
SILVER, TOT RECOVERABLE	----	----	----	0.0017	----	0.752	----	----	0.752	SILVER, TR
ZINC, TOT RECOVERABLE	0.0865	----	124.345	0.0858	----	114.513	14.8936170	7066.85	114.513	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	0.1600								

TYPE OF TREATMENT =	2	Act Sludge
TREATMENT INCLUDE NITIFICATION?	No	

SLUDGE DISPOSAL

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, TOTAL RECOVERABLE	177.1424	123.9996	53.1427	0	53.1427				53.1427	0.0341	0.0000	47.7978	WATER QUALITY
ARSENIC, TRIVALENT	0.6233	0.4363	0.1870	45	0.3400	0.100	3.7530	-------	0.3400	0.0341	0.0000	0.2753	WATER QUALITY
CADMIUM, TOT RECOVERABLE	0.3829	0.2680	0.1149	67	0.3481	1.000	37.5300	-------	0.3481	0.1022	0.0019	0.2196	WATER QUALITY
CHROMIUM, TOT RECOVERABLE	123.8673	86.7071	37.1602	82	206.4454	5.000	187.6500	-------	187.6500	1.7028	0.8470	166.5902	INHIBITION
CHROMIUM, HEXAVALENT	5.2194	3.6536	1.5658	83	9.2107	1.000	37.5300	-------	9.2107	0.0000	0.0000	8.2896	WATER QUALITY
COPPER, TOTAL RECOVERABLE	7.9959	5.5971	2.3988	86	17.1340	1.000	37.5300	-------	17.1340	2.0433	0.5052	13.1270	WATER QUALITY
CYANIDE, FREE	2.4673	1.7271	0.7402	69	2.3877	0.100	3.7530	-------	2.3877	1.3622	0.0096	0.9143	WATER QUALITY
LEAD, TOT RECOVERABLE	3.8738	2.7116	1.1621	61	2.9798	1.000	37.5300	-------	2.9798	1.7028	0.0230	1.1287	WATER QUALITY
MERCURY, TOT RECOVERABLE	0.0189	0.0132	0.0057	60	0.0141	0.100	3.7530	-------	0.0141	0.0000	0.0000	0.0127	WATER QUALITY
MOLYBDENUM		0.0000						-------	0.0000	0.0000	0.0000	-------	-------
NICKEL, TOT RECOVERABLE	35.7867	25.0507	10.7360	42	18.5104	1.000	37.5300	-------	18.5104	0.6811	0.2503	15.8211	WATER QUALITY
SELENIUM	0.2372	0.1661	0.0712	50	0.1423			-------	0.1423	0.0000	0.0000	0.1281	WATER QUALITY
SILVER, TOT RECOVERABLE	0.7523	0.5266	0.2257	75	0.9028	0.250	9.3825	-------	0.9028	0.3406	0.0460	0.4646	WATER QUALITY
ZINC, TOT RECOVERABLE	114.5130	80.1591	34.3539	79	163.5900	1.000	37.5300	-------	37.5300	6.1300	3.5376	25.0761	INHIBITION

SIGNIFICANT INDUSTRIAL USERS

PERMITTEE	AVG FLOW (MGD)	DAILY AVG ANTIMONY (MG/L)	DAILY AVG ARSENIC (MG/L)	DAILY AVG CADMIUM (MG/L)	DAILY AVG CHROMIUM (MG/L)	DAILY AVG HEX CHROM (MG/L)	DAILY AVG COPPER (MG/L)	DAILY AVG CYANIDE (MG/L)	DAILY AVG LEAD (MG/L)	DAILY AVG MERCURY (MG/L)	DAILY AVG Molybdenum (mg/l)	DAILY AVG NICKEL (MG/L)	DAILY AVG SELENIUM (MG/L)	DAILY AVG SILVER (MG/L)	DAILY AVG ZINC (MG/L)
Aerospace Coatings (IU356100001)	**0.0030**	0.0000	0.0000	**0.0100**	1.7100	0.0000	**1.0000**	**0.0500**	**0.1000**	0.0000	0.0000	**0.5000**	0.0000	0.2400	1.4800
Alaplate (IU350800002)	**0.0200**	0.0000	0.0000	0.0100	1.7100	0.0000	1.0000	0.0500	0.1000	0.0000	0.0000	0.5000	0.0000	0.2400	1.4800
Honeywell (IU350800183)	0.0044	0.0000	0.0000	0.0000	0.0746	0.0000	0.0948	0.0000	0.0000	0.0000	0.0000	0.0938	0.0000	0.0000	0.4770
Kronospan (IU350801146)	0.2582	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	**1.4800**
Southern Metal (IU350800046)	0.0362	0.0000	0.0000	0.0000	1.7100	0.0000	**1.0000**	0.0000	0.0092	0.0000	0.0000	**0.5000**	0.0000	0.0000	0.1140
Southern Tool (IU350800009)	0.0012	0.0000	0.0000	0.0000	0.0000	0.0000	0.7993	0.0000	**0.1000**	0.0000	0.0000	0.0000	0.0000	0.0000	**1.4800**
Tape Craft (IU350801151)	0.0936	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Industrial flow	0.4166														

Monthly average permit limits are listed in bold print.

Other values are based on a minimum of 24 months of data if available as reported on DMRs (for parameters with testing requirements in permits).

PERMITTEE	AVG FLOW (MGD)	DAILY AVG ANTIMONY (LBS/D)	DAILY AVG ARSENIC (LBS/D)	DAILY AVG CADMIUM (LBS/D)	DAILY AVG CHROMIUM (LBS/D)	DAILY AVG HEX CHROM (LBS/D)	DAILY AVG COPPER (LBS/D)	DAILY AVG CYANIDE (LBS/D)	DAILY AVG LEAD (LBS/D)	DAILY AVG MERCURY (LBS/D)	DAILY AVG Molybdenum (LBS/D)	DAILY AVG NICKEL (LBS/D)	DAILY AVG SELENIUM (LBS/D)	DAILY AVG SILVER (LBS/D)	DAILY AVG ZINC (LBS/D)
Aerospace Coatings (IU356100001)	0.003	0.0000	0.0000	0.0003	0.0428	0.0000	0.0250	0.0013	0.0025	0.0000	0.0000	0.0125	0.0000	0.0060	0.0370
Alaplate (IU350800002)	0.02	0.0000	0.0000	0.0017	0.2852	0.0000	0.1668	0.0083	0.0167	0.0000	0.0000	0.0834	0.0000	0.0400	0.2469
Honeywell (IU350800183)	0.0044	0.0000	0.0000	0.0000	0.0027	0.0000	0.0035	0.0000	0.0000	0.0000	0.0000	0.0034	0.0000	0.0000	0.0175
Kronospan (IU350801146)	0.2582	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.1870
Southern Metal (IU350800046)	0.0362	0.0000	0.0000	0.0000	0.5163	0.0000	0.3019	0.0000	0.0028	0.0000	0.0000	0.1510	0.0000	0.0000	0.0344
Southern Tool (IU350800009)	0.0012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0080	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0148
Tape Craft (IU350801151)	0.0936	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.4166	0.0000	0.0000	0.0019	0.8470	0.0000	0.5052	0.0096	0.0230	0.0000	0.0000	0.2503	0.0000	0.0460	3.5376

CURRENT PERMITTED INDUSTRIAL LOADING TO POTW (LBS/DAY)

PARAMETER	
ANTIMONY	0.0000
ARSENIC	0.0000
CADMIUM	0.0019
CHROMIUM	0.8470
HEX CHROM	0.0000
COPPER	0.5052
CYANIDE	0.0096
LEAD	0.0230
MERCURY	0.0000
Molybdenum	0.0000
NICKEL	0.2503
SELENIUM	0.0000
SILVER	0.0460
ZINC	3.5376