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DECEMBER 14, 2018

HONORABLE KYLE MCCOY
MAYOR
CITY OF LANETT
POST OFFICE BOX 290
LANETT AL 36863

Re: DRAFT LOCAL LIMITS
CITY OF LANETT
LANETT WWTP
NPDES PERMIT NO. AL0023159

Dear Mayor McCoy:

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 should prevent pass through of pollutants that could cause violations of water quality standards in the POTW's receiving stream, interfere with the POTW collection/treatment system or cause sludge disposal concerns. 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 an updated draft local limits document for the Lanett 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 60 days from the date of this letter.

It should be noted that this draft is based on assumed levels of treatment, assumed levels of pollutants in domestic wastewater and stream conditions that may not reflect actual conditions at your facility. For this reason the Department encourages you to become involved with the local limits development process. Specifically, we are encouraging you to establish a sampling program to collect data that may be used to determine more site specific requirements. Requirements based on site specific information should ensure the protection of your plant's operation and could prevent the unnecessary reduction in permit limits for industrial sources and/or limit capacity for future growth.

If you are interested in establishing a program to collect this data prior to the final development of local limits, you should contact Scott Jackson at (334) 394-4366 within 30 days of the date of this letter to indicate your interest and to obtain specific guidance on proper sampling protocol. In addition a general guidance document for developing a sampling program is attached for your consideration. Should you choose to collect this data no further action will be taken on the attached draft until adequate time has been allowed for the submittal of sampling results.

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

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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)

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 additional information provided, revised draft local limits will be developed. If your facility has no comments and does not wish to establish a sampling program, 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.

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
Sampling for Local Limit Development

CC: Georgia Plating Technology
Shanda Torbert
Scott Jackson

LOCAL LIMITS

PUBLICLY OWNED TREATMENT WORKS: **LANETT WWTP**

LOCATION: **LANETT, ALABAMA**
CHAMBERS COUNTY

PERMIT NUMBER: **AL0023159**

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	2.085
Cadmium, Total Recoverable	2.083
Chromium, Total Recoverable	104.3
Copper, Total Recoverable	20.85
Cyanide, Free	2.085
Lead, Total Recoverable	20.85
Mercury, Total Recoverable	0.1215
Nickel, Total Recoverable	20.85
Silver, Total Recoverable	2.521
Zinc, Total Recoverable	20.85

HYDRAULIC LOADING:

The hydraulic loading limit on an average basis is the design capacity of the treatment plant which is 2.5 million gallons per day.

ORGANIC LOADING:

The organic loading limit ($CBOD_5$) is the design capacity of the treatment plant which is 3482 pounds per day.

SOLIDS LOADING

The Total Suspended Solids loading limit (TSS) is the design capacity of the treatment plant which is 4170 pounds per day.

EFFECTIVE DATE:

ISSUANCE DATE:

DRAFT

_____ _____

Alabama Department of Environmental Management

Rationale for Local Limits

Lanett WWTP (AL0023159)
2.5 MGD Aerated lagoon
Lanett/Chambers County

Reissuance
Prepared Date: 12/11/2018
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 1017.31cfs, 1Q10 of 762.98 cfs, an annual average flow of 5050 cfs and a stream hardness of 50 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 wastewater treatment plant serving West Point, Georgia discharges to the same stream segment as the Lanett WWTP. For purposes of developing local limits for the Lanett WWTP, fifty percent of the available pollutant loading was allocated to each of the POTWs.

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 stores sludge in an onsite impoundment. 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, 2.5 MGD.

Organic loading:
The organic loading limit ($CBOD_5$) 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: Lanett WWTP

NPDES PERMIT NUMBER: AL0023159

DATE PREPARED: 12/11/2018

PREPARED BY: Ed Hughes

STREAM DATA AND POTW FLOW DATA							
RECEIVING STREAM CLASSIFICATION	=	F & W	0		RECEIVING STREAM TIDALLY INFLUENCED =		No
POTW DESIGN FLOW	=		2.5	MGD			
FLOW FROM OTHER CONTRIBUTORS	=			MGD			
DOMESTIC FLOW	=		2.428	MGD			
7Q10	=		1017.31	CFS	OR	657.18	MGD
1Q10	=		762.98	CFS	OR	492.89	MGD
7Q2	=			CFS	OR	0.00	MGD
ANNUAL AVG FLOW	=		5050	CFS	OR	3262.30	MGD
STREAM HARDNESS (DEFAULT VALUE 100)	=		50	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	10165.281	10165.281	ANTIMONY, TR
ARSENIC, TRIVALENT	0.1500	-----	1437.740	0.3400	-----	2447.237	0.00030	8.251	8.251	ARSENIC, TRI
CADMIUM, TOT RECOVERABLE	0.0002	-----	3.541	0.0010	-----	17.960	-----	-----	3.541	CADMIUM, TR
CHROMIUM, TOT RECOVERABLE	0.0420	-----	1100.630	0.3230	-----	6353.905	-----	-----	1100.630	CHROMIUM, TR
CHROMIUM, HEXAVALENT	0.0110	-----	60.519	0.0160	-----	66.104	-----	-----	60.519	CHROMIUM, HEX
COPPER, TOTAL RECOVERABLE	0.0050	-----	70.233	0.0070	-----	74.327	-----	-----	70.233	COPPER, TR
CYANIDE, FREE	0.0052	-----	28.609	0.0220	-----	90.893	9.3333	51349.67	28.609	CYANIDE, FREE
LEAD, TOT RECOVERABLE	0.0012	-----	31.364	0.0301	-----	604.402	-----	-----	31.364	LEAD, TR
MERCURY, TOT RECOVERABLE	0.000012	-----	0.219	0.0024	-----	32.833	0.0000424	0.233	0.21861	MERCURY, TR
MOLYBDENUM	-----			-----	-----		-------		-------	MOLYBDENUM
NICKEL, TOT RECOVERABLE	0.0289	-----	315.207	0.2605	-----	2131.134	0.9929078	5462.731	315.207	NICKEL, TR
SELENIUM, TOTAL RECOVERABLE	0.0005	-----	2.751	0.0020	-----	8.263	2.4305556	13372.309	2.751	SELENIUM, TR
SILVER, TOT RECOVERABLE	-----	-----	-----	0.0010	-----	4.034	-----	-----	4.034	SILVER, TR
ZINC, TOT RECOVERABLE	0.0657	-----	1094.756	0.0651	-----	815.432	14.8936170	81940.96	815.432	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 =	1	Primary
TREATMENT INCLUDE NITIFICATION?	No	

SLUDGE DISPOSAL

DOES THE POTW HAVE SECONDARY CLARIFICATION?	No
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	10165.2813	5082	5083.2813	0	5083.2813				5083.2813	0.0202	0.0000	4574.9349	WATER QUALITY
ARSENIC, TRIVALENT	8.2510	4.126	4.1250	20	5.1563	0.100	2.0850	--------	2.0850	0.0202	0.0000	1.8583	INHIBITION
CADMIUM, TOT RECOVERABLE	3.5410	1.7705	1.7705	15	2.0829	1.000	20.8500	-------	2.0829	0.0607	0.0420	1.7821	WATER QUALITY
CHROMIUM, TOT RECOVERABLE	1100.6299	550.3	550.3299	27	753.8766	5.000	104.2500	-------	104.2500	1.0125	1.0268	91.9896	INHIBITION
CHROMIUM, HEXAVALENT	60.5193	30.259	30.2603	20	37.8253	1.000	20.8500	------	20.8500	0.0000	0.0000	18.7650	INHIBITION
COPPER, TOTAL RECOVERABLE	70.2330	35.11	35.1230	22	45.0294	1.000	20.8500	-------	20.8500	1.2150	1.2430	16.5528	INHIBITION
CYANIDE, FREE	28.6091	14.3	14.3091	27	19.6015	0.100	2.0850	------	2.0850	0.8100	0.3903	0.7962	INHIBITION
LEAD, TOT RECOVERABLE	31.3641	15.68	15.6841	57	36.4746	1.000	20.8500	-------	20.8500	1.0125	0.2582	17.6214	INHIBITION
MERCURY, TOT RECOVERABLE	0.2186	0.1093	0.1093	10	0.1215	0.100	2.0850	-------	0.1215	0.0000	0.0000	0.1093	WATER QUALITY
MOLYBDENUM		0						-------	0.0000	0.0000	0.0000	-------	--------
NICKEL, TOT RECOVERABLE	315.2071	157.6	157.6071	14	183.2641	1.000	20.8500	-------	20.8500	0.4050	1.4291	17.1143	INHIBITION
SELENIUM	2.7509	1.375	1.3759	10	1.5288			-------	1.5288	0.0000	0.0000	1.3759	WATER QUALITY
SILVER, TOT RECOVERABLE	4.0342	2.0171	2.0171	20	2.5214	0.250	5.2125	------	2.5214	0.2025	0.1441	1.9573	WATER QUALITY
ZINC, TOT RECOVERABLE	815.4315	407.71	407.7215	27	558.5226	1.000	20.8500	-------	20.8500	3.6449	0.8887	14.6847	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 critria 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 critria 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. Because of the close proximity with the West Point, Ga WWTP, the available stream allocation for Lanett was reduced by 50%.

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 treament 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 availablity)

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.

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)
Georgia Plating Tech (IU300900002)	**0.0720**	0.0000	0.0000	**0.0700**	**1.7100**	0.0000	**2.0700**	**0.6500**	**0.4300**	0.0000	0.0000	**2.3800**	0.0000	**0.2400**	**1.4800**
Total Industrial flow	0.0720														

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)
Georgia Plating Tech (IU300900002)	0.072	0.0000	0.0000	0.0420	1.0268	0.0000	1.2430	0.3903	0.2582	0.0000	0.0000	1.4291	0.0000	0.1441	0.8887
	0.0720	0.0000	0.0000	0.0420	1.0268	0.0000	1.2430	0.3903	0.2582	0.0000	0.0000	1.4291	0.0000	0.1441	0.8887

CURRENT PERMITTED INDUSTRIAL LOADING TO POTW (LBS/DAY)

PARAMETER	
ANTIMONY	0.0000
ARSENIC	0.0000
CADMIUM	0.0420
CHROMIUM	1.0268
HEX CHROM	0.0000
COPPER	1.2430
CYANIDE	0.3903
LEAD	0.2582
MERCURY	0.0000
Molybdenum	0.0000
NICKEL	1.4291
SELENIUM	0.0000
SILVER	0.1441
ZINC	0.8887

SAMPLING FOR LOCAL LIMIT DEVELOPMENT

Local limits developed utilizing site specific data will more accurately achieve the following:

- Identify Pollutants of Concern (POCs) that could adversely impact the operation of the treatment works, affect water quality in the receiving stream or limit the sludge disposal method utilized by the POTW.
- Determine the headworks capacity for each POC such that the POTW can make decisions regarding pollutant loadings allocation among industrial sources.
- Allow the POTW to make informed decisions regarding reserving pollutant loading for future growth.

For POTWs that desire to have more involvement with the local limit development process, ADEM encourages the collection of site specific data. This may be of particular importance for sites where calculated loadings will be restrictive on future growth and where the POTW believes assumed values in the ADEM Local Limits/Pass Through (LL-PT) spreadsheet do not correctly reflect the actual conditions at the site. For these cases, samples can be collected and analyzed by the POTW in accordance with a sampling plan developed by the POTW that can include the following items:

SAMPLING SITES

- POTW Influent - Influent sampling provides data to be used in calculating POTW-specific removal efficiencies. The sample should be collected from a location that allows for the collection of untreated wastewater before it is mixed with any waste streams returned to the headworks from operations within the POTW. Without site specific data, assumed values may be utilized.
- POTW Effluent - Sampling the treatment works' effluent is essential to determining the POTW's overall removal efficiency. Samples taken to demonstrate compliance with the POTW's NPDES permit can be used for this purpose.
- Collection System - In order to measure pollutant loadings from unregulated (domestic and commercial) sources, samples from a point within the collection system that isolates these sources would provide data regarding domestic/commercial pollutant loading.
- Receiving Stream – When available, the instream Hardness (measured as $CaCO3$) upstream of the discharge is typically used to determine the water quality criteria for some metal pollutants. Stream Hardness affects the loading of these POCs in the POTW's effluent and based on treatment removal rates determines the loading into the POTW headworks. Without site specific instream Hardness data, an assumed value may be utilized.

SAMPLING METHODS

- Sampling should occur on dates that are representative of typical loadings to the POTW and normal treatment works operations.
- 24-hour, flow-proportioned composite samples are the most accurate for generating the data. This sampling technique should be used whenever feasible for all pollutants except those that require grab samples (e.g. Cyanide).

- ADEM suggests 7 to 15 consecutive days of sampling for influent and effluent and 7 consecutive days for collection system data. Fewer sampling days may be appropriate in some cases. This should be discussed with your ADEM Industrial Section area engineer.
- If possible, an effluent sample should be collected at the appropriate time following the collection of the associated influent sample to account for the retention period in the POTW.
- Sampling for instream Hardness should be performed upstream of the discharge point. If possible, sampling should be performed during lower stream flow conditions that typically occur during the late August to early November time period.

ANALYTICAL METHODS

- Approved analytical methods found at 40 CFR Part 136 should be used in the development of local limits. The POTWs should use approved sufficiently sensitive methods (e.g. if there is no detection of the pollutant then a test method with the lowest detection level should be utilized).
- Regarding metals and Cyanide analyses, metals can be analyzed as "Total Recoverable" using EPA Method 200.8. Cyanide can be analyzed using EPA Method 335.4. Other methods may be appropriate if approved by ADEM.

OTHER CONSIDERATIONS

POTWs should not sample during or after periods of heavy rainfall when I&I is also high. Flows at these times may be diluted, and may not be representative of typical residential and commercial flow.

It would be useful to utilize data collected and analyzed over various seasons if available. However, to expedite the development of local limits more rapid data collection and analysis may be appropriate.