US EPA Pretreatment Webcast Series

The Pretreatment 101 Series:
Pretreatment Standards – Local Limits Development

September 29, 2011

Speakers:

- Jan Pickrel, U.S. EPA
- Robin Danesi, U.S. EPA
- I-Hsin Lee, Tetra Tech, Inc.

Office of Wastewater Management, U.S. Environmental Protection Agency

Guide to Our Webcasts

- To Ask a Question – Type your question in the text box located at the bottom of your screen
- To Answer Poll Question – Click on the radio button to the left of your choice and click submit. Do not type your answer in the “Ask a Question” box
- To See Closed Captioning – Turn your pop-up blocker off and click on the “closed captioning” button
- To Complete the Evaluation – Answer questions in the slide window

Pretreatment 101 Series

- Available archived webcasts:
  - Introduction to the National Pretreatment Program
  - Industrial User Waste Survey Procedures
  - POTW's Procedures for Conducting Compliance Inspections
  - POTW's Procedures for Conducting Compliance Monitoring
- www.epa.gov/npdes/training

Purpose of the Pretreatment Program

- To prevent the introduction of pollutants into POTWs which will:
  - interfere,
  - pass through, and/or
  - be incompatible
- To improve opportunities to recycle and reclaim wastewaters and sludges
- To protect POTW workers

Common Acronyms

CWA – Clean Water Act

NPDES – National Pollutant Discharge Elimination System

POTW – Publicly Owned Treatment Works

IU – Industrial User

SIU – Significant Industrial User

CIU – Categorical Industrial User

CFR – Code of Federal Regulations

Outline of Today's Webcast
Continuation of
"Overview of Pretreatment Standards"

- What are "Local Limits"?
- Why are Local Limits Developed?
- Who must Develop Local Limits?
- How are Local Limits Developed?
- What should a POTW submit to get its Local Limits Approved?
- When do Local Limits Expire
  [or, When /Why must they be revaluated]?

Pretreatment Standards: Local Limits

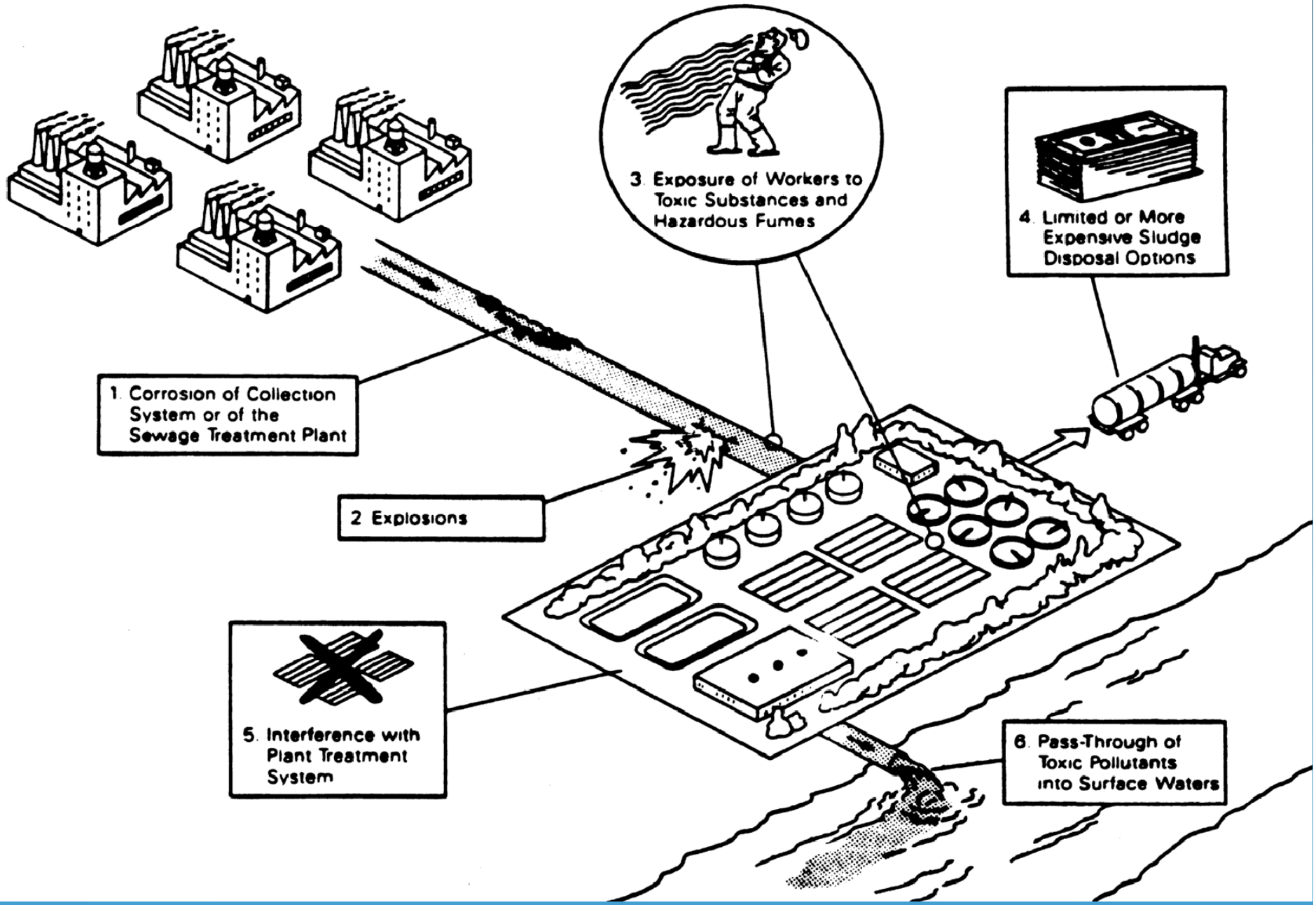
Jan Pickrel
National Pretreatment Coordinator
Environmental Protection Agency

EPA Local Limits Development Guidance

- EPA 833-R-04-002A, July 2004
- Available on our webpage at: http://cfpub.epa.gov/npdes/pretreatment/pstandards.cfm#local

3 Types of Pretreatment Standards

- General and Specific Prohibitions
- Categorical standards
- Local Limits
  - Are Pretreatment Standards if developed in accordance with 40 CFR 403.5(c)
  - Locally implement General and Specific Prohibitions (prevent pass through and interference)

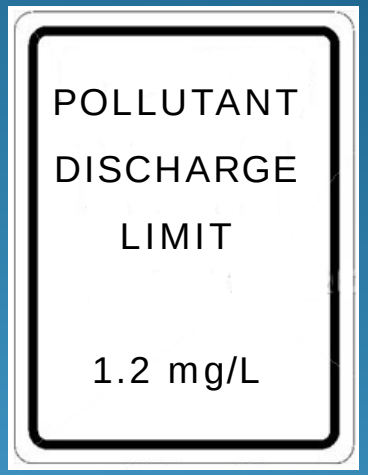

3. Exposure of Workers to Toxic Substances and Hazardous Fumes
4. Limited or More Expensive Sludge Disposal Options
1. Corrosion of Collection System or of the Sewage Treatment Plant
2 Explosions
5. Interference with Plant Treatment System
6. Pass-Through of Toxic Pollutants into Surface Waters

Local Limits Can be Expressed as:

- Pollutant-specific limits
- Additional specific narrative prohibitions
- Industrial user management plans
- Case-by-case discharge limits

Who must comply with Local Limits?

- Local Limits are developed by POTWs
- POTWs determine
  - How local limits are allocated
  - To whom local limits are allocated



Who Must Develop Local Limits?
[40 CFR 403.5(c)]

- Each POTW developing a POTW Pretreatment Program must develop and enforce specific limits to implement the prohibitions listed at 40 CFR 403.5(a)(1) and (b)

- All other POTWs must develop and enforce specific limits for IUs and other users to ensure compliance with the POTW's NPDES permit and sludge use or disposal requirements

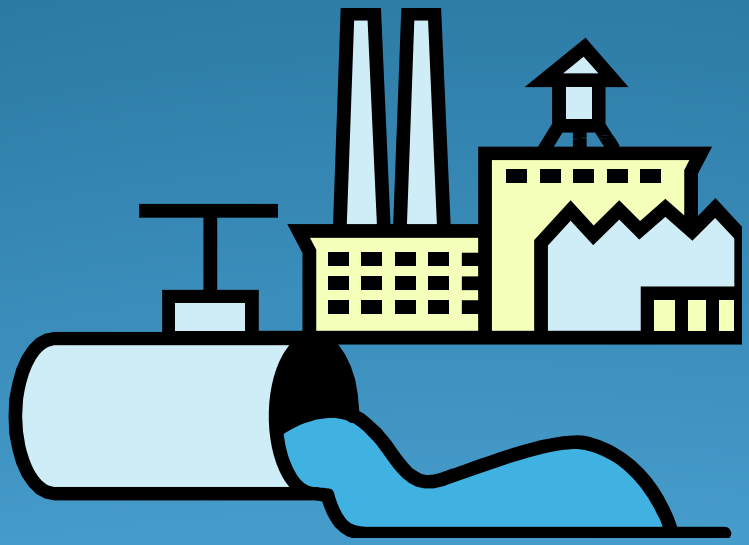
When to Develop Local Limits
[40 CFR 403.5(c) and 403.8(f)(4)]

- POTWs with approved programs
  - During pretreatment program development
  - Continually assess and/or develop when necessary
- POTWs without approved programs
  - In cases where Pass through or interference caused by industrial discharge is likely to recur

Answer to Quiz Question 1:

(b) Local limits are technically-based.

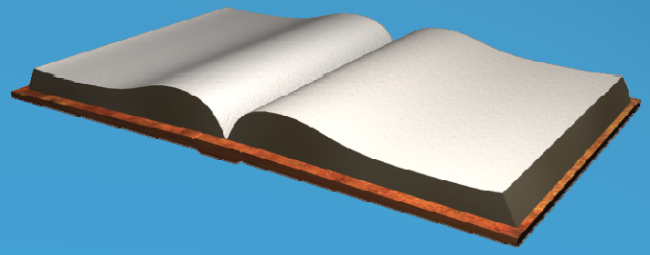
POTW's Local Limits Development Requirements



Robin Danesi
Environmental Protection Agency

Terms and Concepts

- Headworks
- Allowable Headworks Loading (AHL)
- Pollutant of Concern (POC)
- Maximum Allowable Headworks Loading (MAHL)
- Maximum Allowable Industrial Loading (MAIL)
- Controlled and Uncontrolled Sources
- Local Limits



Allowable Headworks Loading (AHL)

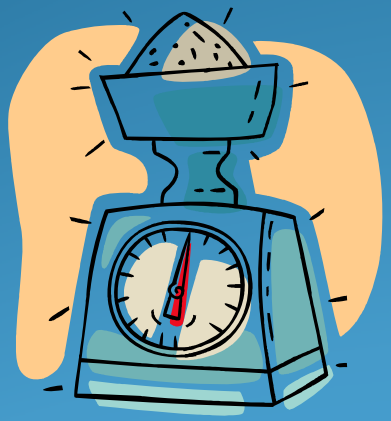
The amount of pollutant a treatment plant can receive without jeopardizing a PARTICULAR criterion (e.g., NPDES effluent limit, plant inhibition values, sludge disposal limit) for a specific pollutant

Pollutant of Concern (POC)

- Any pollutant that might reasonably be discharged in sufficient amounts to cause:
  - Pass through (discharge entering into U.S. waters, cause NPDES permit violations)
  - Interference (discharger that inhibits, disrupts, or prevents POTW operations and processes; disrupts sludge use or disposal)

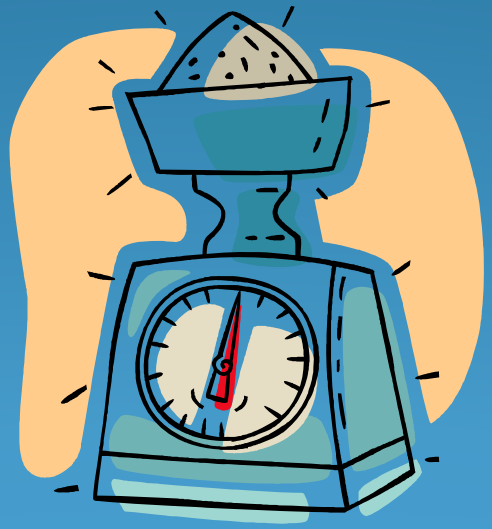
Maximum Allowable Headworks Loading (MAHL)

- The smallest AHL value based on all criterion
- Protects ALL criteria

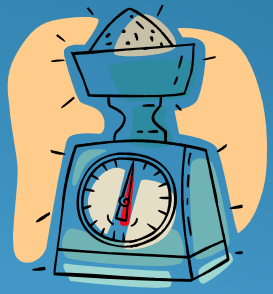


NPDES Permit

Limit



503 Clean Sludge Concentration

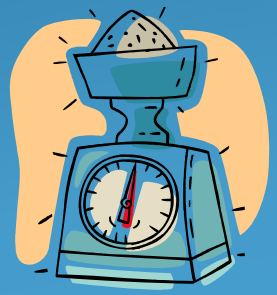


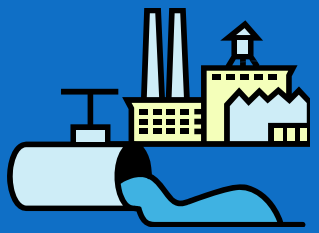
Treatment plant inhibition –

(The smallest AHL)

Maximum Allowable Industrial Loading (MAIL)

The portion of the MAHL that is available for nondomestic sources (controlled sources)





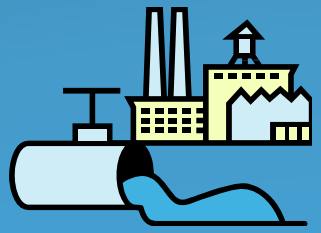
MAIL: For Controlled Sources

Uncontrolled Sources, Safety Factor, and Growth Allowance

Controlled Sources

Any nondomestic user

- Industrial users
- Some or all commercial or institutional users
- Waste haulers



Local limits apply to controlled sources

Uncontrolled Sources

- Domestic users
- Inflow and Infiltration (I & I)
- Treatment chemicals added to sewers
- Drinking water
- Storm water
- Some or all commercial users

Local limits DO NOT apply to uncontrolled sources

Steps for Developing Local Limits

- **Determine Pollutants of Concern (POC)**
- Collect and Analyze Data
- Calculating MAHL for each POC
- Designate and Implement Local Limits
- Address Collection System Concerns

Determine POCs

Five Types

1. National POCs
2. NPDES Permit POCs
3. Sludge Regulated POCs
4. Site-Specific POCs
5. Water Quality Criteria POCS

The 15 National POCs	
Arsenic	Nickel
Cadmium	Selenium
Chromium	Silver
Copper	Zinc
Cyanide	5-day BOD
Lead	TSS
Mercury	Ammonia
Molybdenum	

Determine the POCs

- Pollutants with known environmental criteria (NPDES permit limit, water quality criteria, sludge quality)
- Pollutants known to be discharged to the POTW
- Pollutants that could cause treatment plant inhibition
- Pollutants to protect the treatment plant, collection system and workers:
  - Explosive and flammable substances (for more information, see Appendices H and I of EPA's Local Limits Guidance Manual)
  - Fume toxicity (for more information, see Appendix J of EPA's Local Limits Guidance Manual)

POC Screening Process

- Screening and evaluate for all potential POCs
  - Sample (as needed)
  - Look at historical data
  - Evaluate discharges
- Determine which POCs need further action and which need no further action

Next Steps

- Conduct screening to determine which POCs should be included in a full headworks analysis
- Determine if your approval authority has guidelines that you can use for determining POCs
- Develop your sampling and analysis plan

Steps for Developing Local Limits

- Determine Pollutants of Concern (POC)
- **Collect and Analyze Data**
- Calculating MAHL for each POC
- Designate and Implement Local Limits
- Address Collection System Concerns

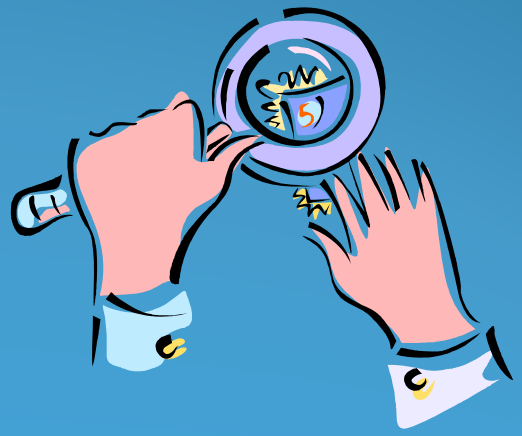
Develop a Sampling Plan

- Depict the POTW under typical operating conditions
- Be representative of different days
- Account for hydraulic retention times
- Be representative of seasonal variations

Collect and Analyze Data

Samples and data need to be collected at:

- Treatment plant's influent
- Treatment plant's primary effluent
- Treatment plant's effluent
- Collection system (for domestic background)
- Sludge
- IUs



Collect and Analyze Data (cont'd)

- Treatment Plant's influent flow
- Sludge flow to digester
- Sludge flow to disposal
- IU flows
- Hauled waste flows
- Commercial flows

Sampling Considerations

NPDES monitoring

- Use all NPDES data for POC
- Be mindful of composite sampling day/times
- If no influent sampling is required by NPDES, may want to consider adding it for POC analysis
- Vary sample day/times

Sampling Methods

- EPA-approved methods 40 CFR Part 136
- Grab vs Composite
- 24-hour Composite

Minimum Sampling Days for Initial Local Limits Development

Parameter	POTW			Residential/Commercial
	Influent (days to sample)	Effluent (days to sample)	Sludge (days to sample)	Collection system (days to sample)
Organic Pollutants	1-2	1-2	1	1-2
National POCs	7-14	7-14	2	7
POTW-specific POCs	7-14	7-14	2	7
Percent solids, sludge			2	
TCLP pollutants			1	

Minimum Sampling Days for Ongoing Local Limits Analysis

Parameter	Location	Less than 5 MGD	5 – 10 MGD	10 – 50 MGD	Greater than 50 MGD
Pollutants for which local limits were adopted	Influent, Effluent, Sludge	Once every 3 months	Once every 3 months	Once every 3 months	Once every 2 months
Pollutants for which MAHLs were calculated, but for which local limits were not adopted	Influent, Effluent, Sludge	Once every 12 months	Once every 6 months	Once every 6 months	Once every 3 months
Organic Priority Pollutants	Influent	Once per year	Once per year	Once per year	Once every 6 months
TCLP Pollutants	Sludge	Once per year	Once per year	Once per year	Once per year
Percent Solids	Sludge	Once every 6 months	Once every 4 months	Once every 3 months	Once every 2 months

Data Considerations

- Detection Limit (DL)
- Practical Quantitation Level (PQL)
- Method Detection Level (MDL)

What do these mean and why is my lab reporting them?

Concentrations Below the Minimum Level of Quantitation (ML)

If only a few data values are below the ML	If most of the data values are below the ML
Option 1: Use surrogate value of ½ the ML	Option 1: Re-evaluate the need for a local limit for the pollutant. (If the pollutant is one of the 15 EPA POCs, an AHL should be developed.)
Option 2: Discard the few samples below the ML. (Influent and effluent data should be discarded in pairs.)	Option 2: Use removal data from other sources (i.e., literature data).

Actual versus Literature Data

Actual Data

- Should be used if available
- Specific to each POTW
- More accurate

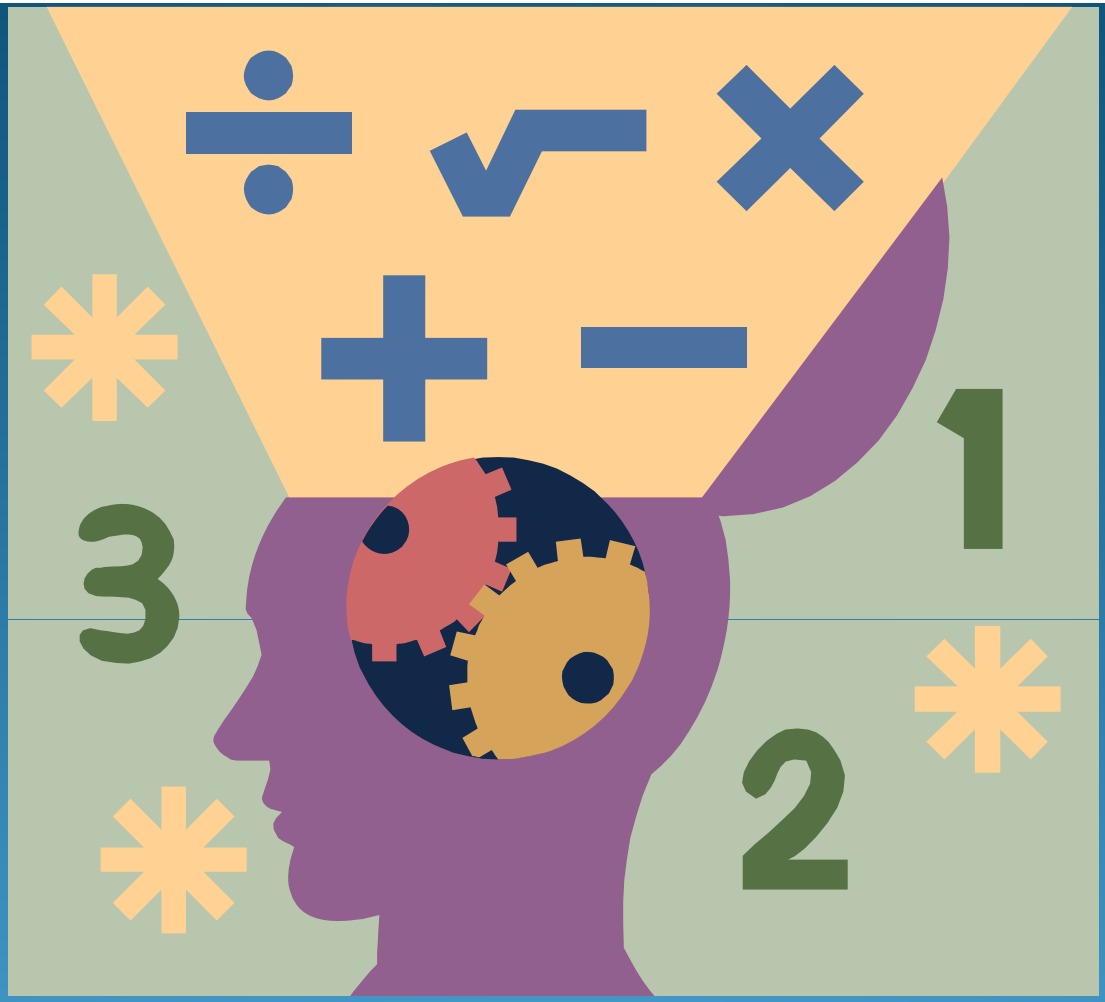
Literature Data

- Can be used if necessary
- If used, POTW should choose data from similar operations
- If used, POTW should clearly document where the data came from

Answer to Quiz Question 2:

False! Actual data should be used for local limits development wherever possible.

Questions?



Calculating MAHLs & Local Limits

I-Hsin Lee
Tetra Tech, Inc.

Steps for Developing Local Limits

- Determine Pollutants of Concern (POC)
- Collect and Analyze Data
- **Calculating MAHL for each POC**
- Designate and Implement Local Limits
- Address Collection System Concerns

Calculating MAHLs

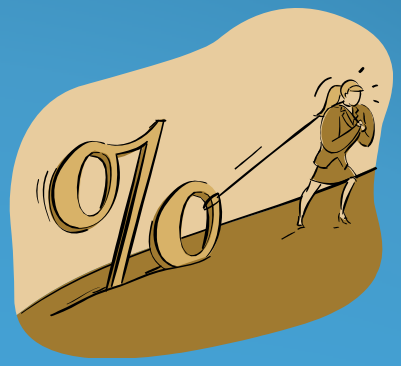
1. Calculate the POTW removal efficiency for each POC
2. Calculate the AHL for each environmental criterion
3. Designate the most stringent AHL as the MAHL for each specific POC

Determining Local Limits

- **MAHL and MAIL Method**
- Local limits based on collection system issues
  - Fire and explosions
  - Corrosion
  - Flow obstruction
  - Toxic gases, vapors, and fumes

Calculating Removal Efficiencies

- Three commonly used methods:
  - Average daily removal efficiency method
  - Mean removal efficiency method
  - Decile method
- Removal efficiency from sludge data



Average Daily Removal Efficiency

$$R_{potw} = \frac{\Sigma(I_n - E_{potw,n})/I_n}{N}$$

$$R_{prim} = \frac{\Sigma(I_n - E_{prim,n})/I_n}{N}$$

$$R_{sec} = \frac{\Sigma(I_n - E_{sec,n})/I_n}{N}$$

Where:

R_{potw} =	Plant removal efficiency from headworks to plant effluent, as decimal
R_{prim} =	Removal efficiency from headworks to primary treatment effluent, as decimal
R_{sec} =	Removal efficiency from headworks to secondary treatment effluent, as decimal
I_n=	POTW influent pollutant concentration at headworks , mg/L
$E_{potw,\ n}$ =	POTW effluent pollutant concentration
$E_{prim,\ n}$ =	Primary treatment effluent pollutant concentration, mg/L
$E_{sec,n}$ =	Secondary treatment effluent pollutant concentration, mg/L
n =	Paired observations, numbered 1 to N

- Influent and effluent samples must be paired with appropriate lag times
- Influent and effluent samples must be paired

Chapter 5: Calculation of Maximum Allowable Headworks Loadings

Negative Removal Efficiency Values?

- Should not be summarily dismissed
  - Chemical addition at treatment plant
  - Poor sampling or analytical technique
- Use the mean removal efficiency method or Decile Approach instead
- Data below minimum level of quantitation

Mean Removal Efficiency

$$R_{potw} = \frac{\bar{I}_r - \overline{E_{potw,t}}}{\bar{I}_r}$$

$$R_{sec} = \frac{\bar{I}_r - \overline{E_{sec,y}}}{\bar{I}_r} \qquad R_{prim} = \frac{\bar{I}_r - \overline{E_{prim,x}}}{\bar{I}_r}$$

Where:

R_{potw} =	Plant removal efficiency from headworks to plant effluent, as decimal
R_{prim} =	Removal efficiency from headworks to primary treatment effluent, as decimal
R_{sec} =	Removal efficiency from headworks to secondary treatment effluent, as decimal
I_r =	POTW influent pollutant concentration at headworks, mg/L
$E_{potw,\,t}$ =	POTW effluent pollutant concentration, mg/L
$E_{prim,\,x}$ =	Primary treatment effluent pollutant concentration, mg/L
$E_{sec,\,y}$ =	Secondary treatment effluent pollutant concentration, mg/L
t =	Plant effluent samples, numbered 1 to T
r =	Plant influent samples, numbered 1 to R
x =	Primary treatment effluent samples, numbered 1 to X
y =	Secondary treatment effluent samples, numbered 1 to Y

- More flexible than the average daily removal efficiency method
- Can be used with either paired or unpaired influent and effluent data
- Can use historical data from the same time period

Decile Method

- Indicates how often the derived removal efficiency was achieved
- Requires at least nine daily removal efficiency values
- Outlined in Appendix P of EPA's Local Limits Development Document

Removal Efficiency from Sludge Data

Plant Removal Efficiency Calculated – Average Daily Removal Efficiency Method

$$R_{potw} = \frac{\Sigma(S_n * PS/100 * Q_{sldg} * G_{sldg})/(I_n * Q_{potw})}{N}$$

Plant Removal Efficiency Calculated – Mean Daily Removal Efficiency Method

$$R_{potw} = \frac{\overline{(S_u * 8.34 * PS/100 * Q_{sldg} * G_{sldg})}}{\overline{(I_r * 8.34 * Q_{potw})}}$$

Where:

R_{potw} =	Plant removal efficiency from headworks to plant effluent, as decimal
I_n, I_r =	POTW influent pollutant concentration at headworks, mg/L
PS =	Percentage solids of sludge to disposal,
Q_{sldg} =	Total sludge flow rate to disposal, MGD
Q_{potw} =	POTW average flow rate, MGD
G_{sldg} =	Specific gravity of sludge, kg/L
8.34 =	Unit conversion factor
S_n, S_u =	Sludge pollutant concentration, mg/kg
n =	Paired observations, numbered 1 to N
u =	Sludge samples, numbered 1 to U
r =	Influent samples numbered 1 to R

- For conservative pollutants only
- Can be used when influent data is above detection but effluent is not
- Can be used as mass balance check for conservative pollutants
- Mean Daily Removal Efficiency Method is often more suitable

Example AHL Calculation

- Primary Removal Efficiency = 15%
- Plant Removal Efficiency = 85%
- Activated Sludge Inhibition Value = 5 mg/L
- Sludge digester inhibition Value = 55 mg/L
- NPDES permit limit = 0.05 mg/L
- Total POTW flow = 10 MGD
- Total IU flow = 1.5 MGD
- Sludge flow to digester = 0.13 MGD
- Domestic/Background Concentration = 0.2 mg/L
- Safety factor = 15%

Calculating AHL based on NPDES Permit Limits

$$AHL_{npdes} = \frac{(8.34)(C_{npdes})(Q_{potw})}{(1 - R_{potw})}$$

Where:

AHL_{npdes} = AHL based on NPDES permit limit, lb/day
C_{npdes} = NPDES permit limit, mg/L
Q_{potw} = POTW average flow rate, MGD
R_{potw} = Plant removal efficiency from headworks to plant effluent, as decimal
8.34 = Conversion factor

AHL Based on NPDES Permit Limits

$$AHL = \frac{(8.34)(0.05)(10)}{(1-0.85)}$$

$AHL_{npdes} = 27.83$ lbs/day

Chapter 5: Calculation of Maximum Allowable Headworks Loadings

Calculating AHL based on secondary treatment inhibition

$$AHL_{sec} = \frac{8.34(C_{Inhib2})(Q_{potw})}{(1 - R_{prim})}$$

Where:

AHL_{sec} = AHL based on secondary treatment inhibition, lb/day

C_{Inhib2} = Inhibition criterion for secondary treatment, mg/L

Q_{potw} = POTW average flow rate, MGD

R_{prim} = Removal efficiency from headworks to primary treatment effluent, as decimal

8.34 = Unit conversion factor

AHL Based on Secondary Treatment Inhibition

$$AHL = \frac{(8.34)(5)(10)}{(1-0.15)}$$

AHL_{sec} = 490.58 lbs/day

Chapter 5: Calculation of Maximum Allowable Headworks Loadings

Calculating AHL based on Sludge Digestion

AHLs Based On Sludge Digestion Inhibition (Conservative Pollutants)

$$AHL_{dgstr} = \frac{8.34(C_{dgstinhib})(Q_{dgstr})}{R_{potw}}$$

AHLs Based On Sludge Digestion Inhibition (Non-conservative Pollutants)

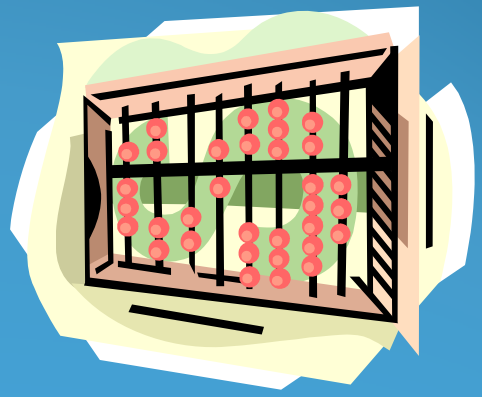
$$AHL_{dgstr} = (L_{infl}) * \frac{C_{dgstinhib}}{C_{dgstr}}$$

Where:

AHL_{dgstr} =	AHL based on sludge digestion inhibition, lb/day
L_{infl} =	POTW influent loading, lb/day
$C_{dgstinhib}$ =	Sludge digester inhibition criterion, mg/L
C_{dgstr} =	Existing pollutant level in sludge, mg/L
Q_{dgstr} =	Sludge flow rate to digester, MGD
R_{potw} =	Plant removal efficiency from headworks to plant effluent, as decimal
8.34 =	Unit conversion factor

$$AHL = \frac{(8.34)(55)(0.13)}{(0.85)}$$

$$AHL_{dgstr} = 70.15 \text{ lbs/day}$$



Compare AHL Values

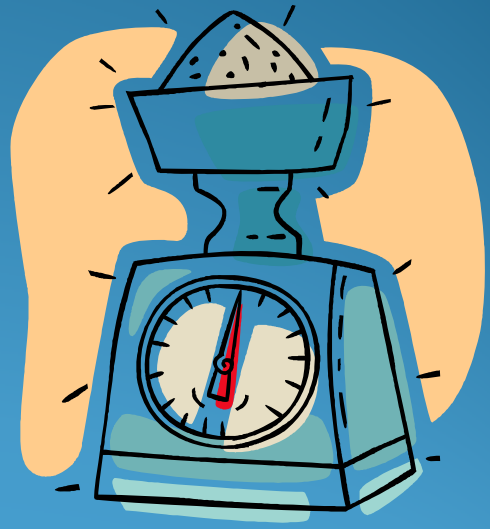
AHL_{npdes} = 27.83 lbs/day

Most stringent AHL

Therefore, it's the

MAHL

AHL_{dgstr} = 70.15 lbs/day



AHL_{sec} = 490.58 lbs/day

Chapter 5: Calculation of Maximum Allowable Headworks Loadings

Steps for Developing Local Limits

- Determine Pollutants of Concern (POC)
- Collect and Analyze Data
- Calculating MAHL for each POC
- **Designate and Implement Local Limits**
- Address Collection System Concerns

Calculating MAIL

Uncontrolled Loading Calculation

$$L_{UNC} = (C_{UNC})(Q_{UNC})(8.34)$$

Where:

L_{UNC} =	Uncontrolled loading, lb/day
C_{UNC} =	Uncontrolled pollutant concentration, mg/L
Q_{UNC} =	Uncontrolled flow rate, MGD
8.34 =	Unit conversion factor.

MAIL Calculation

$$MAIL = MAHL(1 - SF) - (L_{UNC})$$

Where:

MAIL =	Maximum allowable industrial loading, lb/day
MAHL =	Maximum allowable headworks loading, lb/day
SF =	Safety factor, if desired
L_{UNC} =	Loadings from uncontrolled sources (uncontrolled sources= domestic + some commercial + I&I)

$L_{unc} = (0.2)(10\text{-}1.5)(8.34)$

$L_{unc} = 14.18$ lbs/day

$MAIL = [27.83\ (1\text{-}0.15)] - 14.18$

$MAIL = 9.48$ lbs/day

This is the total allowable loading from all IUs!!!

MAIL Allocation Approaches

- Limits based on IU contributions
  - IU contributory Flow
  - Mass proportion method
    - Mass-based limit
    - Concentration-based limit
- Uniform Concentration Limits

IU Contributory Flow Calculations

IU Contributory Flow Calculation

$$C_{LIM} = \frac{MAIL - L_{BACK}}{(Q_{CONTD})(8.34)}$$

Mass Proportion Method for a Mass-Based Local Limit

$$L_{ALL_X} = \frac{L_{CURR_X}}{L_{CURR_t}} * (MAIL - L_{BACK})$$

Mass-Proportion Method for a Concentration-Based Local Limit

$$C_{LIM_X} = \frac{L_{ALL_X}}{(Q_X)(8.34)}$$

Uniform Allocation of Background Loading

$$C_{BACK} = \frac{L_{BACK}}{(Q_{BACK})(8.34)}$$

Where:

C_{LIM} =	Concentration-based limit for all users discharging a pollutant, mg/L
C_{BACK} =	Concentration-based limit for all users discharging pollutant at or below background, mg/L
$MAIL$ =	Maximum allowable industrial loading, lb/day
L_{BACK} =	Total background loading allocation for all users for which no contributory flow limit is being established for that pollutant, lb/day
Q_{CONTD} =	Flow rate from all industrial and other controlled sources discharging the pollutant, MGD
Q_{BACK} =	Flow rate from all industrial and other controlled sources not discharging the pollutant at or below background, MGD
L_{ALLx} =	Allowable loading allocated to user x, lb/day
L_{CURRx} =	Current loading from user x, lb/day
L_{CURRt} =	Total current loading to POTW from controlled sources, lb/day
C_{LIMx} =	Discharge limit for user x, mg/L

Calculating Limit Based on the Uniform Concentration Method

Uniform Concentration Limit Calculation

$$C_{LIM} = \frac{MAIL}{(Q_{CONT})(8.34)}$$

Where:

C_{LIM} =	Uniform concentration limit, mg/L
$MAIL$ =	Maximum allowable industrial loading, lb/day
Q_{CONT} =	Total flow rate from industrial and other controlled sources, MGD
8.34 =	Unit conversion factor

$$C = \frac{9.48}{(1.5)(8.34)}$$

C_{LIM} = 0.77 mg/L

A Limit is Calculated… Now what?

The POTW must determine the appropriate limit duration

Are local limits…

- Daily maximums?
- Monthly averages?
- Instantaneous maximum?

When to use a Daily Maximum Limit

- A local limit is based upon
- a short-term criteria
- a long-term criteria, BUT protecting against a short-term event
- a long-term criteria and protecting against a long-term event, BUT the sampling cannot generate a true monthly average

When to Use a Monthly Average Limit

- When the environmental criteria used for the limit is long term;
- When the protected event is long term; and
- Frequent IU sampling can generate a true monthly average

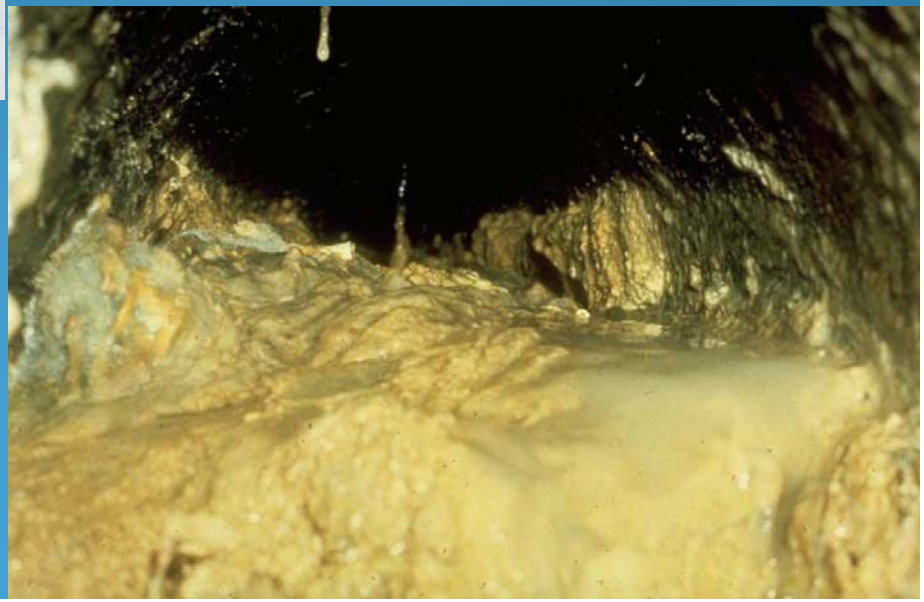
When to Use an Instantaneous Limit

- A limit is based on an one-hour acute toxicity water quality criteria
- For pollutants that cannot be composited
- If the POTW requires IUs to accumulate all wastewater flows in batch tanks

Steps for Developing Local Limits

- Determine Pollutants of Concern (POC)
- Collect and Analyze Data
- Calculating MAHL for each POC
- Designate and Implement Local Limits
- **Address Collection System Concerns**

Collection System Concerns



Protecting the Collection System

40 CFR 403.5(b)

- Fire or explosion
- Corrosion
- Obstruction to flow to/in the POTW
- Toxic gases, vapors fumes

Collection System Protection Resources

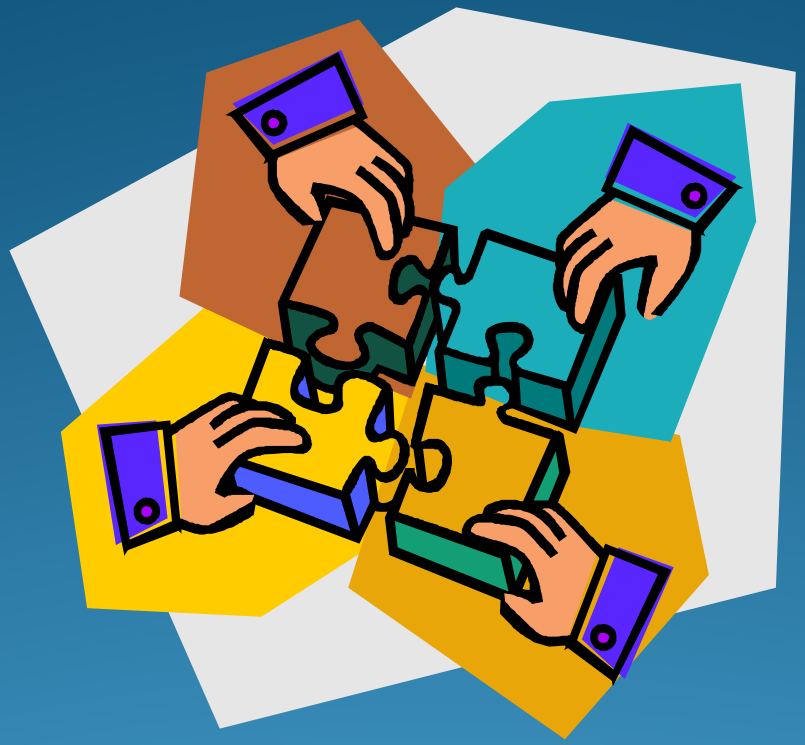
- Guidance to Protect POTW Workers from Toxic and Reactive Gases and Vapors (EPA 812-B-92-001)
  http://www.epa.gov/npdes/pubs/owm0256.pdf
  - Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs)
    http://www.osha.gov/SLTC/pel/
  - National Fire Protection Association
    http://www.nfpa.org/FAQ.asp?categoryid=920
- National Pretreatment Program (40 CFR 403) Fact Sheet: Controlling Fats, Oils, and Grease Discharges from Food Service Establishments (EPA-833-F-07-007)
  http://www.epa.gov/npdes/pubs/pretreatment_foodservice_fs.pdf

Answer to Quiz Question 3:

(b) The maximum allowable headworks loading is determined by the most stringent, or the smallest allowable headworks loading value.

Answer to Quiz Question 4:

True. POTWs can use different allocation methods for different pollutants.



Local Limits Evaluation Completed? Now What? Submit it to the Approval Authority

What should a local limits package include?

- Sampling/data collection plan
- (If not submitted previously to the Approval Authority)
- Sampling locations
- Sampling dates
- Collection methods
- Analytical methods

What should a local limits package include?

- Rationale used for determining POCs
- NPDES permit requirements
- Waste discharge requirements
- Other environmental permit requirements
- Sludge disposal methods
- Worker health and safety issues
- POTW's compliance record
- Why pollutants were eliminated from further consideration

What should a local limits package include?

- Summary of data collected
- Plant influent and effluent data and flow rates
- Domestic background concentrations
- Domestic flow rate
- Industrial flow rate
- Sludge flow to digester
- Sludge flow to disposal
- Sludge quality data
- Removal Efficiencies

What should a local limits package include?

- Formulas used for
- Removal Efficiency
- AHL
- MAIL
- Allocation method

What should a local limits package include?

- List of current and proposed local limits
- Documentation on how local limits will be applied
- Any other necessary information

As Time Goes By…

Re-evaluating Local Limits

NPDES Permit Condition for POTWs

POTWS must provide a written technical evaluation of the need to revise local limits following NPDES permit issuance or reissuance.

[40 CFR 122.44(j)(2)(ii)]

Other Reasons to Reassess Local Limits

- Review compliance history
  - POTW violated its NPDES permit or standards (sludge, water quality)
  - POTW experienced interference of its treatment processes
- New or modified treatment plant
- Change in influent flow characteristics

Answer to Quiz Question 5:

False. A POTW should always include sampling data in its local limits submittal to the Approval Authority.

Questions?

Speaker contact information

Speaker #1

Jan Pickrel

EPA OWM

(202) 564-7904

Pickrel.jan@epa.gov

Speaker #2

Robin Danesi

EPA OWM

(202) 564-1846

danesi.robin@epa.gov

Speaker #3

I-Hsin Lee

Tetra Tech, Inc.

703-385-8966 extension 387

Ihsin.lee@tetratech.com

Participation Certificate

- If you would like to obtain participation certificates for multiple attendees, type the link below into your web browser
- You can type each of the attendees' names in and print the certificates
- http://www.epa.gov/npdes/outreach_files/pretreatment_cert_092911.pdf