



# **Local Limits Submittal Packages**

**How Approval Authorities confirm Local  
Limits are Technically Based**

Dave Knight P.E., May 2021

ACWA-States-EPA National Conference



# **Local Limits Submissions:**

**Review of rules related to Local Limits**

**Review of available Local Limits Guidance**

**Coordinating POTW Plans to Revisit Local Limits**

**Keys to Reviewing Local Limits Submittals**

**Completing / Revisiting the action**



# Reasons POTW Programs Develop and May Need To Update Local Limits:

- **Protect against Pass Through or Interference, and beneficial biosolids uses (original basis)**
  - Especially for more than the initial priority pollutant metals e.g. 'non-conservative' pollutants.
- **Help Manage Compatible Pollutant Capacity:**
  - BOD, TSS, Ammonia, Phosphorus (potentially)
- **Protect against violating WET limits**
- **Assure effluent suitable for reclamation**
- **Allocate loadings for BMPs used ILO limits**
- **Protection against vapor toxicity/explosivity**
- **Limits set for pollutants of emerging concern**



# Why Approval Authorities Care about Approving Local Limits

- If the POTW is non-delegated, the AA may be writing an IU permit (or authorization) and need to defend limits in it.
- If limits are not properly developed (e.g. with notice to affected parties), they may not be defensible.
- For both Delegated POTWs and POTW in the process of delegation, AA's are to provide technical & legal assistance & want programs to succeed in protecting POTWs.



# What's Driving Local Limits Updates:

**1. Local Limits for Programs in Development (Part of Program Delegation)**

**2. Less Stringent Limits for Delegated Programs (Substantial program mods)**

**Cases 1-5  
Requiring  
Local Limits  
Review**

**3. New or More Stringent Limits for Delegated Programs (Minor program mods)**

**4. New or Changed Local Limits for Non-Delegated POTW (NPDES Permit)**

**5. AA identifies POTW Problems due to pollutants needing Limits**



# 1. LL Rules for New POTW Programs

- **403.5(c)(1)** - POTWs developing a program must develop and enforce limits to implement the general and specific prohibitions (403.5(a)(1) and 403.5(b)) **AND continue to develop these limits as necessary AND effectively enforce such limits.**
- **403.8(f)(4)** – POTWs developing programs must develop local limits as required by 403.5(c)(1) or demonstrate they are not necessary (proving a negative is difficult).
- **403.5(c)(3)** Limits shall not be developed and enforced without **individual notice** to persons or groups who have requested it. (Municipalities may have other notice requirements stemming from Federal Administrative Procedures Act requirements for public involvement).
- **NOTE: 40 CFR 403.5(a)(2)** provides **affirmative defense** to Users where a local limit was not developed IAW 403.5(c).



# 1. (cont) – LL Technical Basis Implied In Program Submittals

- 403.9 = contents of POTW Program Submission
- 403.11 = procedures for approving POTW Programs
- 403.9(b)(1) Legal Sufficiency Statement: **POTW can carry out the programs described in §403.8 must:**
  - (i) Identify what provides the required legal authorities under §403.8(f)(1) for each procedure under §403.8(f)(2); and
  - (ii) **Identify how the POTW will carry out requirements of §403.8 (incl: 403.8(f)(4)), and how it applies Pretreatment Standards to IUs.....(cont)**
- Rules require POTWs to explain how they meet 403.8(f)(4), but don't specifically require POTWs to include a 'Technical Basis' for Local Limits



## 2/3 Delegated Programs – Review during Permit Term & Annual Report

- **403.5(c)(1)** - POTWs must develop and enforce Local Limits **and continue to develop these limits as necessary**
- **122.44(j)(2)** – POTW permits require a “***..written technical evaluation of the need to revise Local Limits under 403.5(c)(1)..***” (For delegated programs usually annual pretreatment reports satisfy this requirement)
- **403.12(i)(1)**. Updated IU surveys (& LL Applicability).
- **403.12(i)(4)** New Program Mods (e.g. local limits)
- **403.12(i)(5) Any** other information requested by the AA:
  - Headworks Loadings Relative to MAHL's
  - MAIL, pounds allocated, & received
  - Pollutant loading trends (& Graphs of trends),
  - Future POC's being evaluated



## 2. Less Stringent = Substantial Program Mods

- **403.18(b)** Substantial Modifications - includes relaxing local limits. Submit: 1) Statement of basis, 2) Modified program ref: 403.9(b), 3) Documents AA finds are needed.
- Review Standard: Program must satisfy **403.8(f)** --(f)(4)=LL's
- **403.18(c)(2) AA follows process of 403.11(b)-(f) except may require POTW to provide notices.**
  - **403.11(b)**: AA reviews submission per 403.9(b), Determines if it meets requirements; IF NOT: Returns with comments;  
IF SO: within 20 work days issues a **30-day public notice** to affected persons and interested agencies, with opportunity for public hearing.
  - **403.11(c)**: AA Approves or denies (with response) proposed mods.
  - **403.11(d)**: EPA may object to POTW mods, constitutes 'final ruling'
  - **403.11(e)**: AA provides notice & **public notice of decision**.
  - **403.11(f)**: AA must ensure program and comments publicly available (ALSO: Second notice not required if no comments, & notice specifies)



### 3. New or More Stringent Local Limits = Minor Program Mod

- **403.18(d)** Minor mods – *ALSO includes reallocating MAIL's and pH limits changes.* POTWs submit to AA a statement of basis, modified program, and supporting documentation per the AA.
- If the AA does not object, the modifications are approved after 45 days.
- **403.18(e)** All modifications are to be incorporated into the POTW's NPDES permit per 122.63(g).
- \*\* NEW or More Stringent POTW Limits Must Also Satisfy Individual Notice Requirements of 403.5(c)(3) \*\*
- \*\*\* POTWS Must Identify whether any proposed modifications are substantial or minor \*\*\*



## 4 . Rules Driving Non-Delegated POTWs to Develop Local Limits

- **403.5(c)(2):** ‘All other POTWs shall...’ develop & enforce limits to address ‘Pass Through’ & ‘Interference’ & ensure renewed and continued compliance with their permit.
- 403.5(c)(4): POTWs may use BMP’s ILO numerical limits (streamlining provision)
- **122.44(j)(2):** POTW permits require a “***..written technical evaluation of the need to revise Local Limits under 403.5(c)(1)..***” Not satisfied by annual pretreatment reports as for Del. Prog.
- **122.21(j)(6)(ii)(E)** – POTW’s NPDES Permit App must identify SIUs & if subject to local limits



## 5. Local Limits Related Rules for State (AA) Programs

- **States must develop pretreatment programs to be delegated.**
- **403.10(f)(1)** requires state programs to have legal authority to require IU's to meet pretreatment standards (LL's are such standards).
- **403.10(f)(2)** *Procedures enabling the Director to:*
- (i) Identify POTW's required to develop Pretreatment Programs... **“or in the absence of a POTW Pretreatment Program carry out the activities set forth in §403.8(f)(2)” (i.e. POTW Procedures)**

**NOTE:** While the requirement to issue individual permits is under ‘authorities’ not ‘procedures’, States must have the authority to (somehow) require IU's to meet pretreatment standards (+ Local Limits).

- **States Must Implement their approved program:** Programs should describe non-delegated POTW participation. States may require (in NPDES permits or Orders) POTWs to develop local limits, codify ordinances, reinforce prohibitions, do surveys, do oversight monitoring, inspections, administer FOG programs, etc.
- **122.44(j): As Noted, States May** include NPDES Permit Terms Requiring POTWs to evaluate/re-evaluate the need for local limits.



# **EPA GUIDANCE on Local Limits**

- **2010** Publication: *Control Authority Pretreatment Audit Checklist & Instructions*
- **2004** Manual: ***Local Limits Development Guidance*** (& Appendixes under separate cover)
- **1983** Manual: *Procedures Manual for Reviewing a POTW Pretreatment Program Submission.*



# **Most Recently Updated Guidance:**

## **CONTROL AUTHORITY PRETREATMENT AUDIT CHECKLIST AND INSTRUCTIONS**

**833-B-10-001**

**February 2010**



Office of Wastewater Management  
Office of Enforcement and Compliance Assurance



# 2010 Audit Checklist & Instructions

- Most recent but least detail on the submittal package and the review and approval process for new/modified LL's.
- **Checklist cites 403.8(f)(4) Auditor is to review:**
  - How CA decided on the pollutants to limit (POC's).
  - The most stringent criteria for each local limit (Why?).
  - Allocation method used (e.g. uniform conc., contributing flows, targeted reduction, WYNIWYG, etc.)
  - **Limit basis (instantaneous, daily max, other)**
  - Applied to hauled waste & all jurisdictions (403.1(b)(1))
  - Ensured public involvement (403.5(c)(1) see also APA)
  - **Basis and adequacy of local limits (??)**
  - **When last evaluated & last 'approved' by the AA.**
  - If more than one POTW, are limits POTW specific?
  - Identified any new POC's since last approval?
  - **Followed program modification process (403.18)**



**The Most Thorough address of how to develop Local Limits is the below Manual (134pp & appendixes 128pp)**

United States  
Environmental Protection  
Agency

Office of Wastewater  
Management 4203

EPA 833-R-04-002A  
July 2004



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## **Local Limits Development Guidance**

United States  
Environmental Protection  
Agency

Office of Wastewater  
Management 4203

EPA 833-R-04-002B  
July 2004



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## **Local Limits Development Guidance Appendices**



# Local Limits Guidance Manual Ch.6

- (1) POTW develops or recalculates draft local limits.
- (2) Submits proposed (new and/or revised) local limits and '**supporting documentation**' to the AA for review
- (3) Makes proposed limits available to public for comment
- (4) Provides individual notice to the affected parties.
- (5) AA Must address all public comments in its review.
- (6) **AA notifies the POTW of the adequacy of its submission.**
  - **Not accepted** AA provides comments, POTW -> Step 2
  - **Accepted** AA notifies the POTW accepts proposed limits
- (7) POTW (& contributing jurisdictions) adopt the new limits,
- (8) Pretreatment program modification steps (403.18) followed including public notice, approved by AA, mod of NPDES permit. **Ref: Page 6-17, 6-18**



# Local Limits Guidance Manual (cont.)

- **Supporting Documentation** - Exhibit 6-3:
  - All data used to determine POC's & for calc's
  - Basis for choosing the POC's
  - Record of calculations and assumptions.
  - Printouts from spreadsheets or programs used.
  - Rationale for each proposed local limit including MAHL, (MAIL), allocation method, and calc's.
  - Reasons potential POC's were not limited.
- POTWs should track influent load vs MAHL



# Remember 1983? – HOF QB Picks: Dan Marino - John Elway - Jim Kelley



Photo courtesy [thesportster.com](http://thesportster.com)



**C/O 293 pp. 113pp in 8 Ch & App. A-M  
(App. K is sample attorney's statement)**

**Q: What was the original due date for POTW  
programs to be submitted?**

**833B83100**

United States  
Environmental Protection  
Agency

Office of  
Water Enforcement  
and Permits

**833B83100**



# **Guidance Manual for POTW Pretreatment Program Development**

**ENVIRONMENTAL  
PROTECTION  
AGENCY**

**DALLAS, TEXAS**

**LIBRARY**



# Section 4.6 – Info. To Submit on LL's:

1. Background info on POTW & service area
2. NPDES Permit Limits
3. Prior Interference caused by IU's including:
  - Lower removal efficiency
  - Degradation of collection system
  - Causing emergency conditions, plugs, odors
  - Permit violations believed caused by IU's
4. Sludge Disposal Practices & POC levels
5. Results of POTW sampling incl: domestic levels, influent, effluent, sludges, and **fate of pollutants**.
6. **Method used to develop limits for industries, and the resultant local limits.** (NOTE: This doesn't provide a great deal of detail on this 'technical basis' analysis)



# 136 pp: 5 ch. & 3 app. Ch.3 Tech Info, App B is LL Dev. (39pp)

United States  
Environmental Protection  
Agency

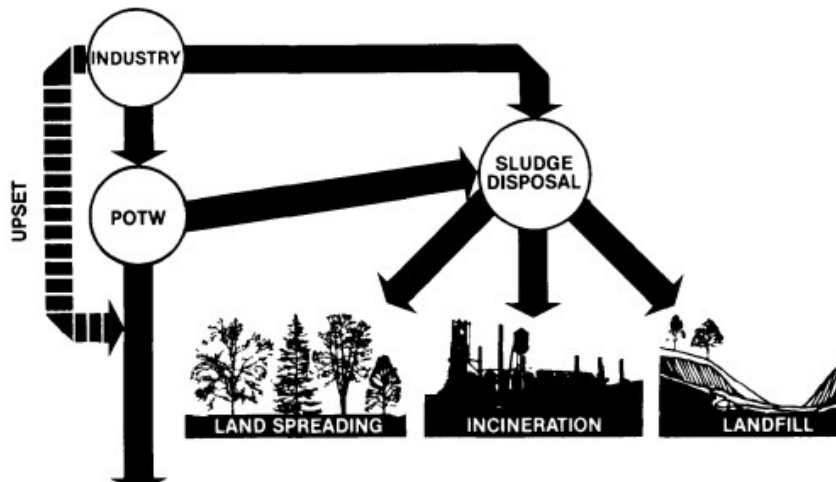
Office of  
Water Enforcement  
and Permits

October 1983



## Procedures Manual for Reviewing a POTW Pretreatment Program Submission

01A0004413



**HISTORICAL NOTE:** Inside **Appendix B** – ‘Developing Local Limits for Incompatible Pollutants’ are original ‘inhibition thresholds’ for activated sludge processes, nitrification, and anaerobic sludge digestion.

- **CHECKLIST IN CH. 3**  
Asks reviewer to determine if need for local limits correctly assessed based on the IWS, past problems, and sample results provided.



# 1983 Manual Checklist for Reviewing Local Limits app. Ch.3

- **Appendix B** is the precursor to the 1987 LL manual, the 1989 supp. manual, and later the 2004 LL manual. Won't reflect changes from these & Streamlining
- **Worksheet #2 Part II** - Local Limits checklist has 62 questions & comments fields – Related to review of LL Technical Basis, but as a checklist is cryptic.
  - POTW Documented: inhibition, upset, pass through, sludge contamination
  - Includes monitoring results for: Influent, internal processes, effluent, sludge, industrial effluent, & hauled wastes
  - Documented how POTW selected the POC's
  - Documented relevant factors, sampling locations, flow rates, safety factors, selection of limiting criteria, implementation, etc.
  - Provides place for reviewer name and initials concurring the technical information to be adequate (or inadequate).



# EPA Efforts to Update the 1983 Procedures Manual for Reviewing a POTW Program

- Draft updates proposed in 2010. This from slide #8 of presentation (Chrystal Beasley)
- *“Major Revisions of Chapter 3” (tech info)*
- *“Revised local limits evaluation procedures*
  - *Deleted section previous section 3.2.1 (Identification of Past POTW Operating Problems) and added Identification of Pollutants of Concern*
  - ***Complete revision of section 3.2.3 (Review of Proposed MAHLs and Local Effluent Limits)”***



# **EPA Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program**

Environmental Protection  
Agency

Office Of Water  
(EN-336)

OW-402  
M-1007



## **Supplemental Manual On The Development And Implementation Of Local Discharge Limitations Under The Pretreatment Program**

Residential And Commercial  
Toxic Pollutant Loadings And  
POTW Removal  
Efficiency Estimation

### **Other Manuals:**

These manuals are  
potentially of  
historical interest,  
but don't reflect  
EPA's latest  
thoughts on LL's:



# Other Checklists:

- **California Water Boards 2019 Guidance:**
- 372 pages: Instructions = 4pp, Checklist = 1.5pp, Example review letter (+2 examples)
- **Review checklist focused on five areas:**
  - Identification of POC's (incl. 15 national, etc)
  - Sufficiency of monitoring data
  - Appropriateness of removal rate calculations
  - Adequacy of MAHL's and subsequent MAIL's
  - Allocation method explained & supported

[https://www.waterboards.ca.gov/water\\_issues/programs/npdes/docs/sops\\_for\\_local\\_limits\\_submittal\\_evaluation.pdf](https://www.waterboards.ca.gov/water_issues/programs/npdes/docs/sops_for_local_limits_submittal_evaluation.pdf)



# Coordinating with POTWs on their Plans for Updating Local Limits

- WHY: LL Reviews are expensive, don't want to redo it & AA's are obliged to provide technical assistance (403.10)
- HOW:
  - Review that the plan is complete, all steps, and good timeline.
  - **Sampling plan** – AA concurs it will allow POTW to develop 'technically based' limits
  - **Selection of POC's**, timing of data collection, review, and processing, ambient data to establish assimilative capacity.
  - How it handles multiple POTWs and contributing jurisdictions.
  - **How/when the technical basis submitted to the AA**
  - Plan for Public involvement, Notice to IU's, Updating Ordinance
  - Plan for modifying the program, and AA modification of NPDES permit for the POTW.

**NOTE: POTW can do notice of program mod & AA can process NPDES permit mod as a 'minor modification'**



# Sample Plans & Data Management

- In WA called 'Quality Assurance Project Plans' QAPP
- Pollutant Data Collection Plan Should Address:
  - How will POC's be determined (# of samples, where)
  - Where and how many samples of POC's (influent, effluent, biosolids, primary clarifier, ambient, industrial, domestic),
  - QA/QC plan + standards (e.g. RPD, etc.)
  - Will data be paired to obtain removal rates based on one hydraulic detention time.
  - How to address non-detects.
- Other data which will be needed: Sludge prod, flow rates from various sources, IU's, Domestic, I/I rates, how obtained.
- Spreadsheet(s) to be used to tabulate and process the data.
- What is submitted to AA, and when.



# LIMITS for ALL the OTHER POC's

**Submittal Package should address which pollutants are regulated in which way(s).**

- **Toxic pollutants** (conservative) amenable to a loading 'pie': MAHL -> MAIL -> LA's. Giving allocations to Users that don't need them can be problematic, but complexity = work.
- **Compatible** pollutants may be amenable to market based approaches, but require capacity management plans.
- **Biodegradable pollutant limits** are calculated differently.
- **Limits supporting specific prohibitions:** (e.g. corrosion, clogs, vapors) achieved through '**end of pipe**' standards (e.g. UPC, BMPs, limits) for FOG, pH, Sulfate, Particulate, HW, vapor toxicity, explosivity at point of discharge.
- **LL Submittals must explain the methodology for deriving proposed limits for these differing types of pollutants.**



**Local Limits to protect against vapor toxicity and explosivity? – You may need to consult this manual:**

United States  
Environmental Protection  
Agency

Office Of Water  
(EN-336)

EPA 812-B-92-001  
NTIS No. PB92-173-236  
June 1992



## **Guidance To Protect POTW Workers From Toxic And Reactive Gases And Vapors**



# Local Limits Submittal Packages

## Things to Check For:

- Documents the assumptions made in developing limits
- Describes the methodology for deriving POC's and collecting the data needed for establishing local limits.
- Describes how the data was processed (printouts of spreadsheets used), & the basis for each proposed limit.
- Discusses multiple POTWs, multiple jurisdictions, seasonal differences, future plans.
- Describes how the limits will be managed, annual review of loadings, tracking and trending, charts.
- States whether the new limits are a substantial or minor program modifications and affected program elements.
- Describe public involvement, codification, and implementation steps before & after approval.



# Parting Information

Ecology Spreadsheet: <https://ecology.wa.gov/Asset-Collections/Doc-Assets/Water-quality/Water-Quality-Permits/Guidance/newl11blank>

Example Technical Basis for Camas, WA (76pp):  
(W.Heinemann, 9/2019, Jacobs)

<http://www.ci.cameras.wa.us/images/DOCS/STP/REPORTS/technicallybasedlocallimits.pdf>

To contact me: David J. Knight P.E.

[dakn461@ecy.wa.gov](mailto:dakn461@ecy.wa.gov)

(360) 407-6277 (back in office phone)

(564) 999-3589 (work cell phone)