

# HOW TO REALLY SURVIVE AN EPA AUDIT

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- GOALS**
- No WWTP violations due to non-domestic flows
  - Technically-based local limits
  - BAT in place plus consistent compliance at CIUs
  - Consistent compliance with local limits associated with WWTP violations
  - Representative and statistically usable sample records
  - No long-term or unaddressed SIU violations
  - Cost effective wastewater handling

- SCOPE**
- Selected inspections of CIUs and non-cat SIUs
  - Walk-through inspection of WWTP(s)
  - Preliminary interviews
  - Review of SIU and WWTP sampling data
  - Issue SIU inspection reports plus enforcement if warranted
  - Final interview
  - PPE report issued to POTW

- REPORT**
- 1. Wastewater Treatment Plant(s) Performance
  - 2. Technically-based Local Limits
  - 3. Industrial User Inventory
  - 4. Local Industrial User Permits
  - 5. Industrial User Compliance with Federal Standards
  - 6. Industrial User Compliance with Local Limits
  - 7. Industrial User Self-Monitoring
  - 8. Pretreatment Program Monitoring and Inspections
  - 9. Enforcement and Incentives

## 1. Wastewater Treatment Plant Performance

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THE WASTEWATER TREATMENT PLANT(S) MUST MEET PERMIT EFFLUENT LIMITS FOR CONVENTIONAL POLLUTANTS, NUTRIENTS, SALTS, METALS, TOXIC ORGANICS AND BIOTOXICITY AS WELL AS THE FEDERAL SLUDGE LIMITS FOR METALS.

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- GOALS
- No WWTP effluent limit violations for conventional pollutants, nutrients or biotoxicity due to overloading from non-domestic sources
  
  - No WWTP effluent limit violations for conventional pollutants, nutrients or biotoxicity due to toxic inhibitions
  
  - No WWTP effluent limit violations for salts, toxics or biotoxicity from the pass-through of non-domestic loads
  
  - Typical influent metals concentrations and no upward loading trends for toxics or salts over time
  
  - No sludge results for metals that exceed the Federal clean sludge standards
  
  - Little statistical potential to exceed effluent and sludge limits  
(? limit < 0.0100 ~ 1%)
  
  - WWTP sample results are representative of discharge and usable for determining compliance (detection limits, sampling protocols and analytical methods)

## 2. Local Limits

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PRETREATMENT PROGRAMS ARE REQUIRED TO DEVELOP LOCAL LIMITS IN ORDER TO PREVENT PASS-THROUGH, INTERFERENCE, SLUDGE CONTAMINATION AND ANY OTHER ADVERSE EFFECTS UPON THE TREATMENT WORKS [40 CFR 403.5(C)].

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- GOALS
- Local loading limits for oxygen demanding pollutants at WWTPs with a potential to experience overloading (limit > 0.0100 ~ 1%)
  - Local limits for salts and toxics if there is a potential to experience pass-through (limit > 0.0100 ~ 1%)
  - Local limits for metals if there is a potential to experience sludge contamination (limit > 0.0100 ~ 1%)
  - Local limits for inhibitory toxics
  - Either local oil & grease limits or a grease control program to prevent collection system failures
  - Maximum allowable headworks loadings based on current permit limits for all pollutants of concern
  - No over allocation of the MAHLs with particular attention to sewer service areas where there are multiple WWTPs, nested WWTPs or overlapping jurisdictions
  - Technically-based local limits apply to the entire sewer service area even if under another jurisdiction

### 3. Industrial User Inventory

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PRETREATMENT PROGRAMS ARE REQUIRED TO DEVELOP A COMPLETE INVENTORY OF INDUSTRIAL USERS, AS PART OF ENSURING INDUSTRIAL USER COMPLIANCE [40 CFR 403.8(b), 403.8(f1iii) AND 403.8(fi)].

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- GOALS
- All CIUs and non-categorical SIUs identified by discharge point to the sewer and under permit
  
  - The SIU inventory includes non-categorical dischargers of less than 25,000 gpd that pose a potential threat to the treatment works
  
  - All IUs that would be categorical if they discharged are identified and under zero-discharge permits

#### 4. Local Industrial User Permits

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PRETREATMENT PROGRAMS ARE REQUIRED TO ISSUE PERMITS WITH STANDARDS, SAMPLING LOCATIONS, MONITORING REQUIREMENTS, AND A 5-YEAR OR LESS EXPIRATION, AS PART OF ENSURING INDUSTRIAL USER COMPLIANCE [40 CFR 403.8(b), 403.8(f1iii) AND 403.8(F2i)].

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- GOALS
- All SIU permits with clearly set applicable Federal standards and local limits, sample points(s), monitoring requirements, and sampling and analytical protocols
  
  - All CIUs correct in classification by Federal category, as new or existing sources, application of production rates, the use of the combined wastestream formula and dilution practices
  
  - All Federally regulated wastestreams accounted for in the permitted sample point(s)
  
  - All process-related wastewaters at the SIUs accounted for in the permitted sample point(s)
  
  - Permit fact sheets for all SIUs that, at a minimum, substantiate the rationale behind the applicable Federal standards and local limits, pollutants of concern, sample point(s), toxic management plans, sampling protocols, and flow and production data used to calculate standards
  
  - Permit fact sheets that also identify each wastewater source and justify whether the design and operation of the controls will result in compliance

## 5. Industrial User Compliance with Federal Standards

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PRETREATMENT PROGRAMS ARE REQUIRED TO BE ADMINISTERED TO ENSURE INDUSTRIAL USER COMPLIANCE WITH FEDERAL STANDARDS [40 CFR 403.8(b)].

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- GOALS
- All categorical industrial users are configured to comply with their Federal standards because most have installed the model Best-available-treatment@
  - Almost no CIUs (3%-6%) with compliance rates below 67%, not by pollutant, but rather for each type of pollutant (metals, cyanide, organics, anions)
  - Not many CIUs (15%-25%) with compliance rates below 92% for each type of pollutant (metals, cyanide, organics, anions)
  - No CIUs with operational instabilities that can be corrected with built-in controls to reduce variabilities inherent in wastewater flow, pollutant loadings or treatment operations
  - Most CIUs employ source controls such as process substitutions, water conservation, on-site reuse or off-site recycling

## 6. Industrial User Compliance with Local Limits

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PRETREATMENT PROGRAMS ARE REQUIRED TO BE ADMINISTERED TO ENSURE INDUSTRIAL USER COMPLIANCE WITH LOCAL LIMITS [40 CFR 403.8(b)].

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GOALS - WWTP(s) compliance with effluent and sludge limits and properly derived local limits serve as the measures of effectiveness

Moreover, for the pollutants associated with WWTP non-compliance:

- No SIUs in significant non-compliance with local limits
- Most SIUs are configured to comply with their local limits
- No SIUs with operational instabilities that can be corrected with built-in controls to reduce variabilities inherent in flow, loadings or treatment

## 7. Industrial User Self-Monitoring

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PRETREATMENT PROGRAMS ARE REQUIRED TO CAUSE INDUSTRIAL USERS TO SELF-MONITOR TWICE PER YEAR UNLESS THE PROGRAM SAMPLES FOR THEM [40 CFR 403.8(b), 403.8(f1iii), 403.12(e1) AND 403.12(g1)]. SAMPLING MUST BE REPRESENTATIVE OF THE REPORTING PERIOD [40 CFR 403.12(g3)].

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- GOALS
- At least the Federal minimum of usable self-monitoring results from the CIUs for all Federally-regulated pollutants and from the SIUs for the pollutants of concern
  - Almost no SIUs (<2%) in significant non-compliance for reporting violations
  - Complete and statistically relevant sampling records for nearly all SIUs (>85%)
  - More than the Federal minimum of usable sample results for the violating CIUs without model treatment in-place and for the SIUs violating any pollutants associated with WWTP(s) non-compliance
  - Automatic mailing of standard self-monitoring forms which expressly restate the required sample results and production and flow information, if necessary
  - SIU permits explicitly state which self-disclosed information can and cannot be claimed as business confidential
  - All sample results are representative of discharge and usable for determining compliance (detection limits, sampling protocols and analytical methods)

## 8. Pretreatment Program Monitoring and Inspections

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PRETREATMENT PROGRAMS ARE REQUIRED TO SAMPLE INDUSTRIAL USERS ONCE PER YEAR IF THEY SELF-MONITOR OR TWICE PER YEAR IF THEY DON'T [40 CFR 403.8(b), 403.8(f2v), 403.12(i2), 403.12(e1) AND 403.12(g1)]. SAMPLING MUST BE REPRESENTATIVE OF THE REPORTING PERIOD [40 CFR 403.12(g3)].

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- GOALS
- At least the Federal minimum of usable sample results from the CIUs for all Federally-regulated pollutants and from the SIUs for the pollutants of concern
  - More than the Federal minimum of usable sample results for the violating CIUs without model treatment in-place
  - More than the Federal minimum of usable sample results for the SIUs violating any pollutants associated with WWTP(s) non-compliance
  - Sample result for the CIUs to verify toxic organics management plans and other non-use certifications (ex: 430-chlorinated phenolics, 414-metals/cyanide)
  - All sample results are representative of discharge and usable for determining compliance (detection limits, sampling protocols and analytical methods)

## 9. Enforcement and Incentives

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PRETREATMENT PROGRAMS ARE REQUIRED, AS PART OF ENSURING INDUSTRIAL USER COMPLIANCE, TO ENFORCE THEIR PERMITS FOLLOWING AN ENFORCEMENT RESPONSE PLAN, AND PUBLISH ANNUAL SIGNIFICANT NON-COMPLIANCE LISTS [40 CFR 403.8(b), 403.8(f1iii), 403.8(f2vii) and 403.8(f5)].

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- GOALS
- No violating CIUs without model treatment in-place
  - No long-term or recurring non-compliance
  - No unidentified effluent limit, monitoring, reporting or dilution-as-substitute-for-treatment violations
  - No identified violations without a timely and formal response
  - An enforcement response plan that defines an extensive and varied range of enforcement options and which may include incentives
  - An enforcement response plan that defines clear consequences for every violation
  - An enforcement response plan that defines the resolution of non-compliance as either the completion of the necessary corrective actions or enough follow-up sampling to statistically represent consistent compliance (~15 to 20 samples).