• Held in May 2010
• 24 presentations & 2 meetings - 2 ½ days
  - Can get everything on-line
• Audit problems - Carol Staniec
  - Common problems
  - How to avoid them
• Audit pointers - Penny Bouchard
Pretreatment Program Audits

Common Problems and How to Avoid Them

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Pretreatment Enforcement Manager
US EPA Region 5
312.886.1436
Objectives

- Selection Criteria
- Local Limits
- Industrial user characterization
- Sewer Use Ordinance
- Control Mechanism Issues
- Compliance Monitoring Problems
- Control of Hauled Wastes
- Enforcement Response Plans
Selection Criteria

- National performance measure
- ENPPA or state work plan agreement
- New effluent guidelines
- Regional initiative
- Year before permit expiration
- Required enforcement action (on QNCR)
- Worthy of national recognition
Local Limits

- Permit re-issuance
- Local limits that have not been reevaluated to determine if they are protective
- Monthly limits borrowed from categorical – not technically based
Local Limits

- Problems due to pollutant loadings
- Local Limit evaluations should include conventional pollutants
- Consideration of conventional pollutants
- No upper limit for surcharge pollutants
Specific Local Limits and Concerns

- Oil and Grease
- Mercury
- BOD
- CBOD
- Nutrients - Phosphorous - Ammonia
- Phenols
Industrial User Characterization

- Industrial User surveys not done on a regular basis or they do not have a procedure in place for yearly evaluations
- Look beyond known IUs
- Look at discharges and potential discharges
Sewer Use Ordinances

- Operating personnel or titles no longer present or used
- Undefined adjectives are used
  - Major/Minor contributor
  - Major/Minor violation
  - Significant increase or change
  - Infrequent or gross violations
Control Mechanisms

- Permits do not reflect the current operations
- Sampling locations do not allow for compliance determination with the regulations
- Not properly identifying and sampling the permitted outfalls/compliance points.
- Sample time frame does not match SUO or the permit
- Best management plans or practices
Control Mechanisms

- Not all pollutants are being regulated or accounted for
- Permits need to be signed, dated and the effective period identified
- Modifications of permit and extending the expiration date
- Missing required elements
Control Mechanisms

- Basis for limits and conditions
- When permit limits are mass based (lbs/day) programs not measuring flow during compliance sampling
- Permit limits that are unenforceable
- Permit limits for parameters that are not established in the Local Limits and were not public noticed
Control Mechanisms

- Correct signatures of IU authorized officials on all required documents. Files not containing documentation regarding delegation of authority within the IU structure.
- Incomplete chain of custody (COC) forms and/or not maintaining COC with IU monitoring records (preservation, part 136 method, date collected, etc.)
Control Mechanisms

- Defining term 'significant' in permits. Needs to be defensible in court.
- Limit units missing (e.g., mg/l, lbs/day)
- Limit type missing (e.g., instantaneous maximum, daily maximum, 4-day average, monthly average)
Compliance Monitoring

- Monitoring for all regulated pollutants
- Flow monitoring where mass limits set
- Sampling that reflects IU operations
- Slug control requirements
- Re-sampling where POTW conducts all sampling
- Only accepting reports from authorized representatives
Specific Monitoring Concerns

- Oil and Grease
- pH
- Cyanide
- TTO and VOCs
- Flows, locations, signatures
Application of Pretreatment Standards

- Categorization
- Existing/new source
- Incorporation of recent categorical standards
- Incorporation of local limit
- Narrative standards
- Changing monthly categorical standards
Control of Hauled Wastes

- Understanding of wastes accepted
- Procedures to accept it
- Physical controls
- Accounted for in local limits evaluation
Enforcement

- Authority for responses in ordinance
- Workable range of responses
- Is POTW following approved ERP?
- Are responses being taken by those in specified positions?
- Is POTW’s enforcement effective?
Audit Pointers

- Fill out the form before they arrive
  - New version with streamlining 2/2010
- Don’t leave EPA alone with files
  - New staff may not find stuff in files
  - If you are not with them, you do not know what they are missing
- Make sure upper mgt is at exit interview
More Pointers

- Permits
  - Permit length
  - Limits pages revised to clarify grab, composite, etc
  - Sampling location diagrams
  - Eliminate the term SPCC
  - Implementation of Accidental Discharge /Slug Load Plans
  - Transfer provisions in permit does not match ordinance
More Pointers

- Standard conditions attachment is not in the file
- Delegated authority is not in file
- Lab data submitted without authorized signature

- Incorrect titles of POTW personnel – therefore permit not issued!!!
- LOV vs NOV
- Administrative fine capability
- ERP does not match what you are doing
More Pointers

- IU Survey is really maintained
- IU Classification documented
  - What categorical and why
  - Why not classified
- Evaluation of local limits to be included in permit
  - 1 sampling per permit cycle
- They want fact sheets – do a mini!
Other changes of note

- NPDES Requirements for pretreatment
  - Survey
  - Local Limits
  - Annual monitoring
• 'Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;
• EPA held webcast – 9/21/2010 not yet archived in EPA training & meeting
• Continuous
• Annual – drive-by in all business parks
### Pre-Treatment Business Survey

**Industrial Park:**

**Business Name:**

**Address:**

<table>
<thead>
<tr>
<th>Name of Site Representative:</th>
<th>Thomas Bacon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>President</td>
</tr>
<tr>
<td>Site Phone:</td>
<td>6303799050</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:tbacen@packaging.com">tbacen@packaging.com</a></td>
</tr>
</tbody>
</table>

**Building Type:**
- [ ] Single Unit
- [ ] Multiple Unit
- [ ] Number of Units in the Building: 2

**Number of Employees:** [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

**Number Per Shift:**
- [ ] 1st
- [ ] 2nd
- [ ] 3rd
- [ ] Other

**Operating Days:**
- [ ] Mon
- [ ] Tue
- [ ] Wed
- [ ] Thu
- [ ] Fri
- [ ] Sat
- [ ] Sun

**Hours Per Day (M-F):** [ ] 8 [ ] 9 [ ] 10 [ ] 11 [ ] 12

**Sat-Sun:** [ ] 8 [ ] 9 [ ] 10 [ ] 11 [ ] 12

What services or products are produced at this site?

- [ ] Contract Packing
- [ ] Contract Manufacturing
- [ ] Contract Fabricating
- [ ] Contract Finishing
- [ ] Contract Printing
- [ ] Contract Mailing
- [ ] Contract Sorting
- [ ] Contract Additional Services

What raw materials are used at this site?

- [ ] Food
- [ ] Metal
- [ ] Wood
- [ ] Paper
- [ ] Fabric
- [ ] Plastic
- [ ] Chemical
- [ ] Other

Is processed waste discharged to the sewer system? Yes [ ] No [ ]

If YES please describe below:

Does the firm store liquids in drums? Yes [ ] No [ ]

If YES How Many: [ ] Less Than 5 [ ] 5 or More

Drum General Substance:

Does the firm store liquids in bulk? Yes [ ] No [ ]

If YES: How Many Tanks: [ ]

Largest Tank Size: [ ] gals

Smallest Tank Size: [ ] gals

Bulk General Substance:

Submit Survey
Local Limits

- Required w/in 6 mo from effective date of NPDES permit
- Following information must be submitted to USEPA:
  a. Total plant flow
  b. Domestic/commercial pollutant contributions for pollutants of concern
  c. Industrial pollutant contributions and flows
  d. Current POTW pollutant loadings, including loadings of conventional pollutants
  e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the treatment plant)
  f. Safety factor to be applied
g. Identification of applicable criteria
   I. NPDES permit conditions
   II. Biological process inhibition
   III. Collection system problems
h. Sludge disposal methods
i. Sludge flow to digester
j. Sludge flow to disposal
k. % solids in sludge to disposal
l. % solids in sludge to digester
m. Plant removal efficiencies for conventional pollutants
n. If revised limits are proposed, the method of allocating to IU
o. A comparison of maximum allowable headworks loadings
p. Pollutants that have caused
i. Violations or operational problems at POTW – conventionals
ii. Fires and explosions
iii. Corrosion
iv. Flow obstructions
v. Increased temperature in the sewer system
vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
vii. Whole Effluent Toxicity failures
viii. Inhibition
q. ‘Monitoring only’ pollutants in NPDES
• Increased monitoring requirements
  - Semi-annual intervals instead of annual

• Visits in 2011
  - 5 year cycle was restarted in June
• Analysis & Sampling Procedures
  - 40 CFR 136
  - September 23, 2010

• Use of Sufficiently Sensitive Methods
  - June 23, 2010
  - NPDES monitoring
• Audit form updated for Streamlining
  - Revised February 2010
  - National link to industrial pretreatment from Region V PT
  - Publications - all docs sorted by date
  - Control Authority Pretreatment Audit Checklist & Instructions

• Fact Sheet 9 - SNC
  - Supposed to be available
  - Emailed EPA and got response but is still not on site

• New Source Dates - Region V
  - Epagov/r5water/npdprta.htm
-Questions??????

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The Nose Knows
A Shelter Dog Becomes a Sewage Sniffing Dog

Environmental Canine Services LLC
Born to Sniff

- 75% Nature, 25% Nurture
- Scent Receptor Area
  - Human 1-sq in (size of a postage stamp)
  - Dog = 60 sq in (size of a Kleenex)
- Chemical Signals
  - Create odor image
  - More detailed than a photograph for people
- Bloodhounds have been known to stick to a trail for over 130 miles
Training

• Began April 2007
• Positive Reinforcement
• Septage from Residential System
  – Contains surfactants and fecal material
• Imprinting
• Free Search
• The Alert (chaining)
• Proofing
What's Next?

Research

- City of Santa Barbara
- USCSB
- K-9s ability to discriminate
  - Human v Animal
- DNA source tracking
- Publication/Presentation