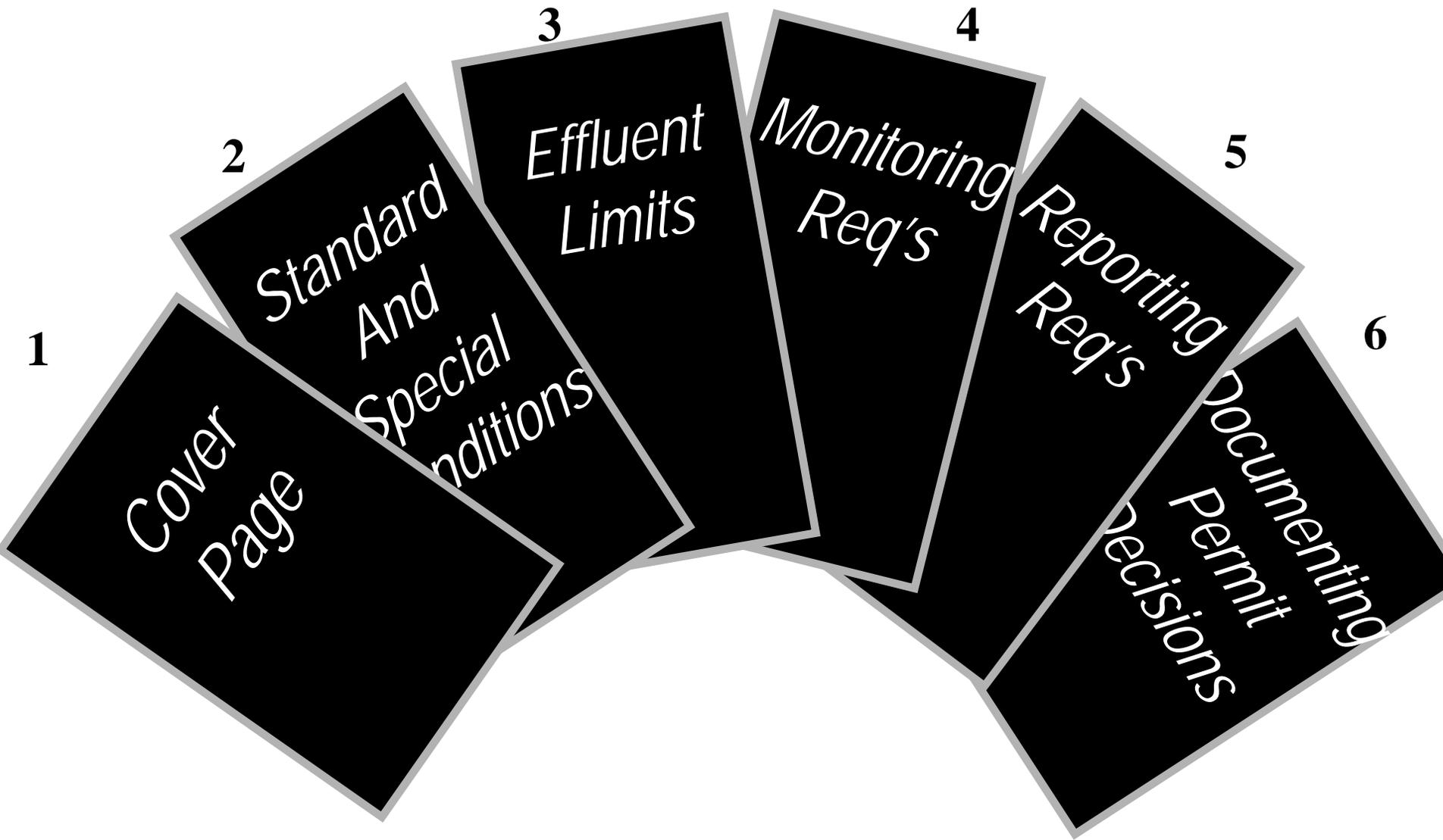


*Chapter 1 – Section 1*

# Industrial User Permits





# *Permit Contents*

# *Adequacy of Individual Control Mechanisms*

## Mechanism

## Yes

## No

Contracts



Local regulations



Administrative orders



Permits



# Who to Permit

- Significant industrial users (SIUs)
  - Categorical
  - Other
- Non-significant industrial users
- Waste haulers



# *Minimum Permit Contents*

## *40 CFR 403.8(f)(1)(iii)(B)1-6*

- **1. Statement of Duration (Maximum 5 years)**
- **2. Statement of Non-transferability without specific criteria.**
- **3. Industrial effluent limits**
- **4. Self-monitoring, sampling, reporting notification and recordkeeping requirements.**
- **5. Statement of applicable civil and criminal penalties and any applicable compliance schedules.**
- **6. Requirements to control slug discharges.**



# *Permitting Procedure*

- **Must Have Legal Authority (Local Sewer Use Ordinance) to:**
  - regulate all non-domestic users
  - require and issue permits
  - enter, inspect, sample and verify information
  - incorporate Federal, State and local pretreatment standards and requirements
  - require self monitoring, record keeping and reporting
  - enforce permit violations



**(1) Identify and notify SIU**

**(2) SIU files permit application**

**(3) Application complete?**

**Request additional data**

**(4) Site visit**

**Yes**

**No**

```
graph TD; A["(5) Develop draft permit"] --> B["(6) Send draft permit to applicant for review  
Notify other interested parties  
Other public participation"]; B --> C["(7) Consider comments and  
revise draft permit"]; C --> D["(8) Issue permit"]; style A fill:#ffff00,stroke:#ff0000; style B fill:#ffff00,stroke:#ff0000; style C fill:#ffff00,stroke:#ff0000; style D fill:#ffff00,stroke:#ff0000;
```

**(5) Develop draft permit**

**(6) Send draft permit to applicant for review**  
**Notify other interested parties**  
**Other public participation**

**(7) Consider comments and  
revise draft permit**

**(8) Issue permit**

**Administrative or  
judicial review**

**Yes**

**(9) Permit  
Appeals**

**No**

**Favor permit  
issuance?**

**Yes**

**(10) Monitor compliance and  
enforce during effective  
period of permit**

**No**

**Return to  
Step 5, "Develop  
Draft Permit"**

**(11) Permittee files permit  
application for renewal**

**Go to Step 3,  
Application Review**

# *Permit Structure and Wording*

- Wording can affect permit enforceability

- Do's:



- Use specific language



- Develop concise and complete conditions and requirements



- Write clearly and simply



- Avoid conflicting language



# *Common Errors and Omissions*

## — Improper calculation of standards

### Failure to:

- ✓ Apply the most stringent limit
- ✓ Include all specific requirements
- ✓ Regulate all discharge points
- ✓ Include standard conditions
- ✓ Specify signatory requirements
- ✓ Account for predictable variations





# *Permit Contents*

# 1. *Cover Page*

- Name and address of the permittee
- Citation to legal authority
- Duty to comply
- Reapplication requirements
- Effective period
- Signature of Control Authority



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# Permit Contents



*Chapter 1-Section 1 (E)*

**Industrial User  
Permits:  
Standard  
Conditions**



## *Learning Objectives*

- **Describe the role of “boilerplate” language**
- **Discuss methods for placing standard conditions in permits**
- **Review the types of standard conditions**



## *5. Standard Conditions*

- **Developed once**
- **Reviewed by legal staff**
- **May be periodically re-reviewed**
- **Often reiterate local program provisions**
- **Outline the general duties and responsibilities of each IU**



# *Examples of Standard Conditions*

- **Definitions**
- **Duty to comply**
- **Duty to mitigate**
- **Permit reopener clause**
- **Legal remedies and enforcement measures**
- **Terms for permit revocation**
- **etc.**



*Chapter 1 – Section VI*

# Industrial User Permits: Special Conditions



# *Learning Objectives*

- **Describe how and why special conditions might be placed in permits**
- **Discuss methods for placing special conditions in permits**
- **Review the types of special conditions**



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# Permit Contents

# *Section VI. Special Conditions*

- **Tailored to the particular permittee**
- **Based on the fundamental principle of reasonableness...e.g.**
  - **Compliance schedules**
  - **Management practices**
  - **Special Monitoring Requirements**



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# Permit Contents



*Chapter 1-Section 1 (E)*

**Industrial User  
Permits:  
Standard  
Conditions**



## *Learning Objectives*

- **Describe the role of “boilerplate” language**
- **Discuss methods for placing standard conditions in permits**
- **Review the types of standard conditions**



## *5. Standard Conditions*

- Developed once
- Reviewed by legal staff
- May be periodically re-reviewed
- Often reiterate local program provisions
- Outline the general duties and responsibilities of each IU



# *Examples of Standard Conditions*

- **Definitions**
- **Duty to comply**
- **Duty to mitigate**
- **Permit reopener clause**
- **Legal remedies and enforcement measures**
- **Terms for permit revocation**
- **etc.**



*Chapter 1 – Section VI*

# Industrial User Permits: Special Conditions



# *Learning Objectives*

- **Describe how and why special conditions might be placed in permits**
- **Discuss methods for placing special conditions in permits**
- **Review the types of special conditions**



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# Permit Contents

# *Section VI. Special Conditions*

- **Tailored to the particular permittee**
- **Based on the fundamental principle of reasonableness...e.g.**
  - **Compliance schedules**
  - **Management practices**
  - **Special Monitoring Requirements**



*Chapter 1 – Section II*

**Industrial User  
Permits:  
Effluent Limits**



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# Permit Contents



## *2. Effluent Limitations*

- **Selection of which pollutants to regulate**
  - Which pollutants are present?
- **Which pollutants require regulation**
  - National prohibited discharges
  - Categorical pretreatment standards
  - Local limits



# *Effluent Limitations*

- Applying Effluent Limits
  - **Point of application**, (CWF, FWA, etc)
  - **Type of limit** (daily max, monthly average etc.)
  - **Units** (mg/l, lbs/day etc)
  - **Most stringent limit** application
  - **Tiered Permit** applications



# *General & Specific Prohibitions*

- **Prohibit Pass Through & Interference**
  - Narrative limit
  - Other approach
- **Prohibit Specific parameters**
  - pH
  - Oil & grease
  - Others
- **Apply to all IUs**



# *Select Pollutants to be Regulated*

- Determine pollutants that are present
- Determine pollutants requiring regulation
  - National prohibited discharges
  - Categorical pretreatment standards
  - Local limits



# *Categorical Pretreatment Standards, Overview*

- Technology-based standards for selected industry types
- Generally promulgated for both existing sources and new sources
- Can be concentration-, mass- or production-based
- May include daily-maximum and long-term average limitations



# *Applying Categorical Pretreatment Standards*

- Category(ies) and subcategory(ies)
- Existing or new source
- Regulated, unregulated, and dilute wastestreams
- Sampling locations
- Calculations
- Compliance date
- Compliance schedule



## *Local Limits*

- May be established for any number of pollutants
- Local regulations may contain all the local limits
- Allocation of loadings
  - Same limits to all IUs
  - Different limits to different IUs



# Category Determination & Application of Standards

IU specific information, e.g., IWS questionnaire

Identify production process(es), raw materials, and products

Understand production process(es) and wastestreams generated

Contact EPA/State staff for assistance, if necessary

Determine applicable subcategory(s)

Determine applicable category(s)

Identify wastestreams and calculate limits

Compare against local limits

Apply most stringent standards

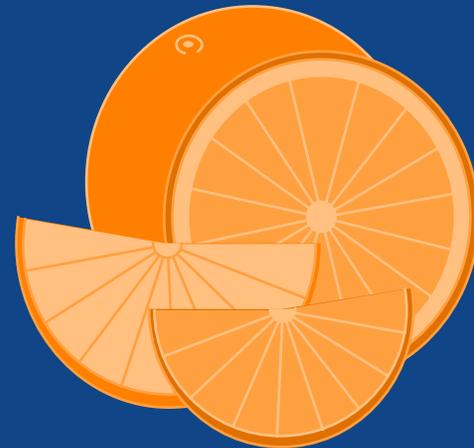
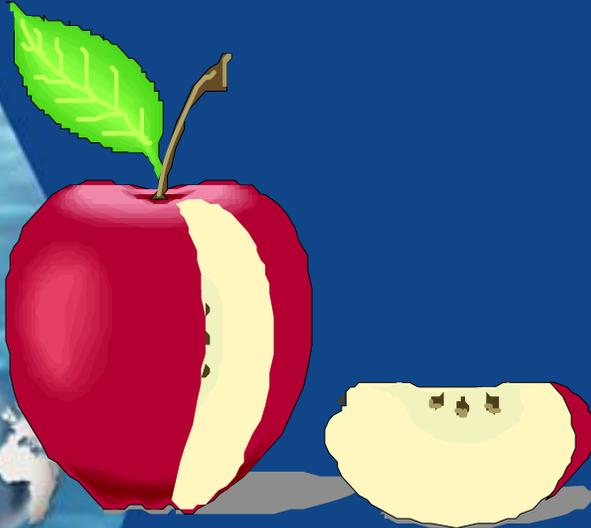


# *Apply Effluent Limits*

- Point where limits apply
- Limit units
  - e.g., mg/l, lbs/day
- Limit type
  - e.g., instantaneous maximum, daily maximum, 4-day average, monthly average

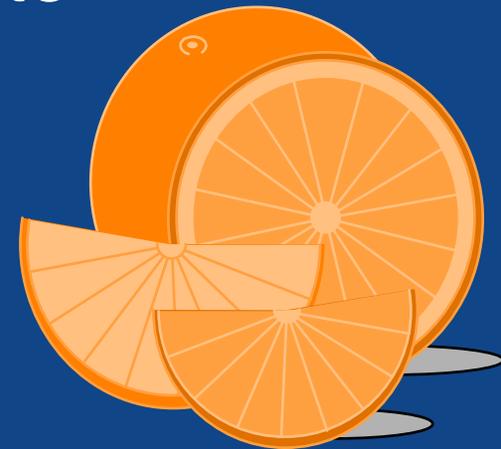


*Relationship of Local  
Limits to Categorical  
Pretreatment  
Standards*



# *Comparing Categorical Pretreatment Standards and Local Limits*

- Direct comparison
  - Allowed where only regulated wastewater is discharged
  - May require conversion to similar units



PSES  
Daily

PSES  
Monthly

Local Limit  
Daily

Cd

0.69

**0.26**

**0.61**

Cr

**2.77**

**1.71**

2.85

Cu

**3.38**

**2.07**

3.78

Pb

0.69

**0.43**

**0.50**

Ni

3.98

**2.38**

**2.65**

Ag

**0.43**

**0.24**

0.74

Zn

2.61

**1.48**

**1.39**

CN-

1.20

**0.65**

**0.87**

TTO

**2.13**

-----

-----



# *Commingled Wastestreams*

- Adjustment of categorical pretreatment standards
- Combined wastestream formula (CWF)  
Adjusts for commingling wastestreams prior to pretreatment
- Flow weighted average (FWA)  
Adjusts for commingling wastestreams after pretreatment



**Regulated A**



**Pretreatment**

**Local Limit  
Applies Here**

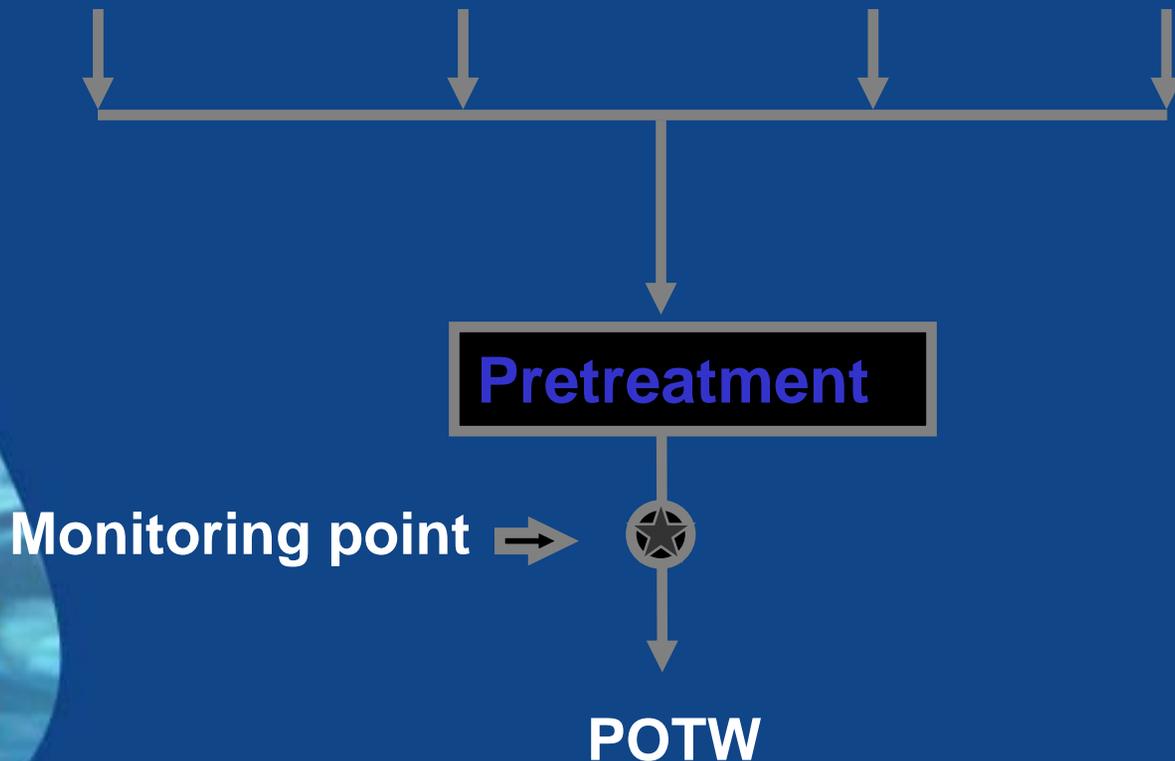
**Categorical Standard  
Applies Here**

**POTW**



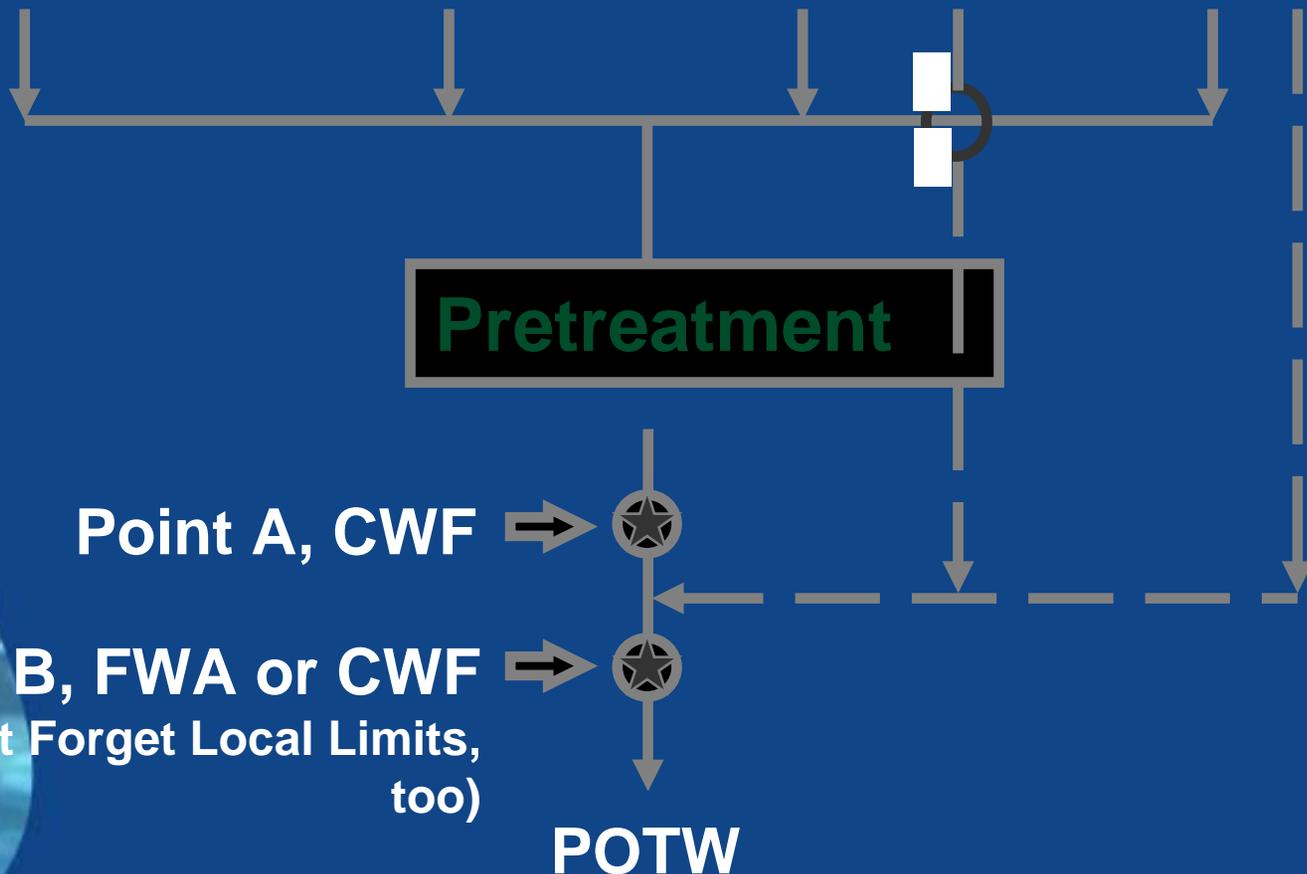
# *Combined Wastestream Formula (CWF)*

**Regulated A   Regulated B   Unregulated Dilution**



# CWF vs. FWA

Regulated A    Regulated B    Unregulated    Dilution



Pretreatment

Point A, CWF

Point B, FWA or CWF

(Don't Forget Local Limits, too)

POTW

# *CWF Considerations*

- Enforceable as categorical standards
- Established for each regulated pollutant
- May require converting concentration-based standards to mass-based, or vice versa
- Calculated for daily maximum and long-term averages
- Must be greater than analytical detection limit
- Special considerations



# *CWF: Alternative Concentration Limit Formula*

$$C_T = \frac{\sum_{i=1}^N C_i F_i}{\sum_{i=1}^N F_i} \times \left( \frac{F_T - F_D}{F_T} \right)$$

*Where:*

*C<sub>T</sub> = Alternative CWF concentration limit*

*C<sub>i</sub> = Categorical pretreatment standard concentration limit for regulated stream "i"*

*F<sub>i</sub> = Average daily flow for regulated stream "i"*

*F<sub>T</sub> = Average daily flow through combined treatment facility (TOTAL)*

*F<sub>D</sub> = Average daily flow of "dilute" streams*



## FWA, Adjusted Mass Limit:

Pretreatment effluent mass limit (CWF adjusted where necessary)

+

Actual mass of pollutant in nonregulated wastestream(s) added after pretreatment

## FWA, Adjusted Concentration Limits:

Pretreatment effluent concentration limit (CWF adjusted where necessary)

x

Flow at pretreatment effluent

+

Actual mass of pollutant in nonregulated wastestream(s) added after pretreatment

---

Flow at monitoring location

**Apply when “unregulated” wastestreams are combined after pretreatment**

# *Production-Based Categorical Pretreatment Standards*

- Allowable pollutant mass discharge per unit of production
- Direct application
  - Real time production and flow data
- Use of equivalent mass or concentration limits



# *Determine Appropriate Production Rate*

- Long-term production average recommended
  - 3-5 years of data
- Anomalies may be discarded
  - Documentation of justification required
- Projections for new sources



## *Tiered Permits*

- Avoids reopening for known variability
- Situations for using tiered permits
  - Planned addition of a new process/process lines
  - Significant seasonal production variations
  - Production based on demand
  - Other



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# Permit Contents

*Chapter 1 – Section IV*

**Industrial User  
Permits:  
Monitoring  
Requirements**



# *Section IV. Monitoring Requirements*

- **Sampling location**
- **Pollutants to be monitored**
- **Sample collection method**
- **Monitoring frequencies**
- **Analytical methods**



# *Sampling Location*

- **Must coincide with the point(s) at which the effluent limits apply**
- **Must produce a sample “representative” of the nature and volume of the industrial user’s effluent**
- **Must be safe, convenient, and accessible to industrial user and Control Authority personnel.**
- **Photograph**



# *Pollutants to be Monitored*

- **Include numerical limits**
- **Include all categorical pretreatment standards**
- **Include other parameters subject to local limits if justified**
- **Include monitoring for unregulated pollutants of potential concern if justified**
- **Include flow monitoring where required**



# *Clarifying Alternate Options*

- O&G in lieu of TTO
- Certifications in lieu of periodic monitoring
  - Prior sampling and/or plan required
  - Certification contents
- Engineering calculations



# *Sample Collection Method*

- **Specify collection method.**
  - **Grab sample**
  - **Composite sample**
    - Time proportional
    - Flow proportional
- **Specify sampling period (e.G. 24hour, 8 hour)**
- **Specify minimum number of aliquots**
- **Specify minimum number of grab samples**



# *Monitoring Frequencies*

- **Federal Regulations require a minimum of “twice” per year.**
- **Develop compliance monitoring requirement based on at least the following factors:**
  - **Representative data of users discharge**
  - **Potential impact of industry**
  - **History of user compliance**
  - **Costs**



# *Analytical Methods*

- Analytical methods must comply with 40 CFR Part 136 regulations.
- May specify exact analytical method required
- May require analysis be performed by a State certified laboratory
- Alternative methods



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# Permit Contents



# *Reporting Requirements*

- **Continued Compliance Reports**
  - What types of information are to be submitted (e.g. analytical, flow, production data)
  - Dates and frequency of submission
  - Signatory responsibilities
  - Submission location (address) and name of person responsible for receipt of the report
  - Electronic reporting
  - Violation identification
  - Penalties



# Reporting Requirements

**Slug control plan**

Plans for pretreatment

**Sludge management plans**

Compliance schedule progress report

**Notice of potential problems**

**Solvent management plan**

Permit renewal

**Notice of changed discharge**

PERIODIC COMPLIANCE

90-day compliance report

REPORTS

**Comments on permit**

Baseline monitoring report

**Hazardous waste notific**

Toxic organic management plan

24-hour notification & resampling reports

**Bypass**

**Upse**

**What?**

**When?**

*Reporting  
Requirements*

**Who?**

**Where?**

# *CIU/SIU Self-Monitoring Reports*

*[40 CFR § 403.12(e) & (h)]*

- **Nature and concentration of discharged pollutants**
- **Flow/production data**



# *Certification statement*

*[40 CFR § 403.6(a)(2)(ii)]*

**I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fines and imprisonment for knowing violations.**



# *Signatory Requirements*

*[40 CFR § 403.12(I)]*

- **Responsible corporate officer,**
- **General partner or proprietor,**  
**or**
- **Duly authorized representative**



**POTW may monitor in lieu  
of IU self-monitoring**

**[40 CFR § 403.12(g) & (h)]**



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# Permit Contents



# *Fact Sheets: Documentation of Permit Decisions*

- **Permanent record**
  - Procedures followed
  - Basis of decisions made
- **Useful in the event of permit challenge**
- **Streamline future permit re-issuance**



# *Fact Sheets: Contents*

- **Description of the IU**
- **Type and quantity of the discharge**
- **Rationale for permit limits**
- **Rationale for IU specific conditions**
- **Derivation of limits**



# *Maintaining Permit Records*

- **Conversations, correspondence, and documents**
- **Permittee, public, Control Authority, and Approval Authority**



# *Reopening Permits*

- **Regulatory updates**
- **Industry specific changes**
- **Typographical errors**
- **Misinterpretations**



# *Permit Modifications*

- **May involve:**
  - New permit being developed
  - An addendum to the permit
- **New effective/compliance date**
- **Public notice**



# *Permit Transfers*

- **Notification from new owner/operator**
- **Substantial changes**
- **Informal transfer**



*Chapter 1 - Permitting*

**Industrial User  
Permits: Waste  
Haulers**



# *Waste Haulers: Legal Authority*

- **Compliance with standards and requirements**
- **Permits**
- **Discharge locations**
- **Sample**
- **Consent prior to discharge**
- **Waste analysis**
- **Manifest system**



# *Permitting Waste Haulers*

- Identify haulers
- Complete permit application
- Develop permit conditions
- Issue permit



# *Developing Permit Conditions*

- **Right of refusal**
- **Nondomestic loads**
- **Prohibited discharges**



# *Developing Permit Conditions continued*

- **Federal Categorical Pretreatment Standards**
- **Local Limits**
- **Number of Loads**
- **Designated Disposal Site**



# *Developing Permit Conditions continued*

- **Time Limitations**
- **Waste Tracking**
- **Notification of Waste Type**
- **Random Sampling**
- **Standard Conditions**



*Questions?????*

