COMPREHENSIVE
LEAD AND COPPER RULE
TRAINING

January 2001
Introduction
Purpose of This Training

❖ Improve consistent implementation nationally
❖ Present the Lead and Copper Rule Minor Revisions (LCRMR)
❖ Explain primacy issues
❖ Present SDWIS reporting
Introduction
Terminology for Primacy Agency

“State” means Primacy Agency

40 CFR §141.2 definition for State

Possible Primacy Agency

- State
- Tribal government
- EPA Region

Federal regulation v. State or Tribal government regulations
Introduction
How The LCR Presentation is Organized

• LCR Overview
• SDWIS Reporting Overview
• LCR Minor Revisions (LCRMR)
• Rule Provisions
  – Lead and Copper Tap/Initial WQP Monitoring
  – Corrosion Control Optimization
  – Public Education
  – Source Water Monitoring & Treatment
  – Replacement of Lead Service Lines
  – State Reporting and Recordkeeping
• Primacy and Implementation
LCR Overview
Health Effects of Lead

佩  Children are highly susceptible
  - Impaired mental development
  - IQ deficits
  - Shorter attention span
  - Lowered birth weight
  - Altered heme synthesis and Vitamin D metabolism

佩  Adults
  - Increased blood pressure

佩  EPA set MCLG at zero
LCR Overview
Health Effects of Copper

- Stomach and intestinal distress
- Complications of Wilson’s Disease
- Chronic exposure can cause liver disease in genetically predisposed individuals
- EPA set MCLG at 1.3 mg/L
LCR Overview

Published on June 7, 1991

Establishes MCLGs for lead and copper

Mandates treatment techniques vs. MCL, triggered by tap monitoring results > AL

<table>
<thead>
<tr>
<th></th>
<th>MCLGs</th>
<th>Action Levels (ALs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>0 mg/L</td>
<td>0.015 mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>1.3 mg/L</td>
<td>1.3 mg/L</td>
</tr>
</tbody>
</table>

• AL Exceedance *is not a violation*
LCR Overview

Lead and Copper Tap Monitoring

- No Exceedance*
  - Periodic Monitoring

- Lead Exceedance
  - Treatment Technique Requirements
    - CCT
    - SOWT
    - Public Edu.
    - LSLR

- Copper Exceedance
  - Treatment Technique Req’ts
    - CCT
    - SOWT

* includes systems serving ≤ 50,000 people and (b)(3) systems.
Introduction
LCRMR Summary

❖ Reduce burden
  ● frequency of monitoring
  ● flexibility in public education requirements

❖ Improve implementation
  ● compliance with OWQP
  ● sample invalidation

❖ Clarifications of 1991 rule

❖ Address 2 judicial remands
  ● transient water system exclusion
  ● lead service line replacement requirements
Introduction

LCRMR Effective Date

Published on January 12, 2000

Effective April 11, 2000

Provisions divided into two categories

- provisions that are more stringent and systems were required to begin implementing on April 11, 2000 (*marked with a ✨ throughout the presentation*)

- provisions that are less stringent and require State adoption and/or approval to implement
Introduction
SDWIS Reporting Issues to Be Addressed

- Effective Date
- Milestone reporting
- Sample reporting
- Violation reporting
- Enforcement/Follow-up actions and linking
- Significant Non-Compliers (SNC)
- Data transfer file format (DTF)
Introduction

Summary of Changes to SDWIS Reporting

様々 LCRMR

- 3 milestones (LSLR, DEEM, DONE)
- All 90th lead for medium and large

様々 Non-rule-related changes

- 15 violation types consolidated into 10
- begin date is day after event*
- end date is 12/31/2015*

*Applies to all violations except compliance with optimal water quality parameters and WQP M/R violations.
Introduction
Effective Date for SDWIS/FED

Most requirements/provisions are effective 90 days after LCRMR published (4/11/00)

FR lists 5/15/00 as earliest date for reporting new requirements and codes

Option to report under old or new until 1/13/02
Introduction

Effective Date for SDWIS/FED

- SDWIS/FED will convert data reported, as necessary and appropriate, until 1/13/02
- After 1/13/02, SDWIS/FED will not convert or accept data which does not meet new requirements
- Provide warning messages in Errors Reports
- Converted data will be identified on SDWIS/FED Error Reports until 1/13/02
- After 1/13/02, data reported that is not consistent with new requirements will be rejected
Introduction

Milestones Summary

- Reduction of reported Milestones (was 11; now 3)
- Two new Milestones (DEEM and DONE)
- CU90 Exceedances reportable as Samples (being converted by SDWIS/FED)
- PB90 Exceedances no longer reportable as Milestone… must be reported as Sample
- Remainder of pre-LCRMR Milestones are rejected by SDWIS/FED
Introduction
Violation Summary

❖ Consolidation of Violation Types … 15 to 10
❖ LCRMR changes non-compliance portrayal
❖ Begin date - day after requirement missed
❖ End date - defaulted to December 31, 2015 until RTC reported and linked to violation
Introduction and Overview

Enforcement

❖ Continued reporting required for all formal actions, and when compliance is achieved (RTC)

❖ New Use for “Intentional No-Action” enforcement

Example: System has LSL replacement violation, but is at or below lead action level for 2, subsequent, consecutive monitoring periods
Introduction and Overview

Significant Non-Compliers (SNCs)

- No NEW SNCs - modified Initial Tap (51)
- Consolidated OCCT/SOWT Installation and/or Demonstration into one SNC
- 3 discrete SNCs
  - Initial Tap Monitoring (51)
  - OCCT/SOWT Installation/Demonstration (58)
  - Public Education (65)
Introduction and Overview

Significant Non-Compliers (SNCs)

Initial Pb/Cu Tap M/R

Initial SDWIS/FED implementation as of 4/01 - System with this violation which was not linked to RTC

OCCT/SOWT Installation, or

Public Education

After 4/01 - System with this violation

System with this violation & 90th percentile lead level of \( \geq 0.030 \) mg/l in most recent monitoring period
Lead and Copper NPDWR Requirements

- Lead and Copper Tap/Initial WQP Monitoring
- Corrosion Control Optimization
- Public Education
- Source Water Monitoring & Treatment
- Replacement of Lead Service Lines
- State Reporting and Recordkeeping
- Primacy and Implementation
Lead and Copper Tap Monitoring

Overview

- Required for all CWSs and NTNCWSs
- Systems divided into 3 size categories

<table>
<thead>
<tr>
<th>Size</th>
<th>No. of People Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>≤ 3,300</td>
</tr>
<tr>
<td>Medium</td>
<td>3,301 - 50,000</td>
</tr>
<tr>
<td>Large</td>
<td>&gt; 50,000</td>
</tr>
</tbody>
</table>

Size impacts rule requirements
Samples collected at kitchen/bathroom taps
Sample results dictate other requirements
Lead and Copper Tap Monitoring
Site Selection

Sample from Highest Risk Homes (Tier 1)

- Copper pipes with lead solder installed after 1982, but before State’s lead ban
- Lead pipes
- Lead service lines
Lead and Copper Tap Monitoring
Site Selection

- CWS: Collect Tier 1 ➔ Tier 2 ➔ Tier 3
- NTNCWS: Collect Tier 1 ➔ Tier 2
- Minimum number of required sites identified by rule
Lead and Copper Tap Monitoring
Sample Collection Method

First draw
6-hour standing time
1 liter
Residents can collect samples
### Lead and Copper Tap Monitoring

Minimum Number of Tap Samples

<table>
<thead>
<tr>
<th>System (Population)</th>
<th>No. of Sampling Sites (Routine)</th>
<th>No. of Sampling Sites (Reduced)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 100,000</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>10,001 to 100,000</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>3,301 to 10,000</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>501 to 3,300</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>101 to 500</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>≤ 100</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Lead and Copper Tap Monitoring
Action Levels

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>0.015 mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>1.3 mg/L</td>
</tr>
</tbody>
</table>

Measured at 90th percentile (e.g., if 100 samples, no more than 10 may exceed action level)
Exceedance of an AL is not a violation
Lead and Copper
Tap Monitoring
How to Calculate 90th Level: > 5 Samples

Step 1: Place lead or copper results in ascending order

Step 2: Assign each sample a number, 1 for lowest value

Step 3: Multiply the total number of samples by 0.9
Example: 20 samples x 0.9 = 18th sample

Step 4: Compare 90th percentile level to the action level
Lead and Copper
Tap Monitoring
How to Calculate 90th Level: 5 Samples

**Step 1:** Place lead or copper results in ascending order

**Step 2:** Take the average of the 4\textsuperscript{th} and 5\textsuperscript{th} highest samples

**Step 3:** Compare 90\textsuperscript{th} percentile level to the action level
Lead and Copper Tap Monitoring
Initial Monitoring

Start Dates for Monitoring

Jan. 1992: Large Systems (> 50,000)
July 1992: Medium-Size Systems (3,301-50,000)
July 1993: Small Systems (≤ 3,300)

6-month monitoring periods (Jan - June), (July - December)
WQP Monitoring
Initial Monitoring

- Required for all large systems
- Required for small/medium systems if exceed an AL
- Sample site locations
  - representative taps (e.g., coliform sites)
  - entry points to the distribution system
- 2 samples per site
- Used to assist in determining optimal CCT
## WQP Tap Monitoring
### Minimum Number of Tap Samples

<table>
<thead>
<tr>
<th>System (Population)</th>
<th>No. of Sampling Sites (Routine)</th>
<th>No. of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 100,000</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>10,001 to 100,000</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>3,301 to 10,000</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>501 to 3,300</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>101 to 500</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>≤ 100</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
# Reduced Monitoring for Pb/Cu Criteria

<table>
<thead>
<tr>
<th>Systems serving</th>
<th>Criteria</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 50,000</td>
<td>Meets both action levels for 2 consecutive 6 months</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>Meets both action levels for 3 consecutive years</td>
<td>Triennial</td>
</tr>
<tr>
<td>Any size system that is required to collect WQPs</td>
<td>Meets OWQPs for 2 consecutive 6 months</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>Meets OWQPs for 3 consecutive years</td>
<td>Triennial</td>
</tr>
</tbody>
</table>
LCR Minor Revisions
Changes to Sampling Pool

Systems without enough tiered sites must use representative sites

Systems without enough first-draw sample sites
- Must collect non-first-draw samples from sites with longest standing times
- State can waive need for prior approval

Implement on April 11, 2000
## LCR Minor Revisions

### Systems on Reduced Monitoring

<table>
<thead>
<tr>
<th>LCR</th>
<th>LCRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>✱ Reduced sampling sites not specified</td>
<td>✱ Must use representative sites &amp; State can specify sites</td>
</tr>
<tr>
<td>✱ No notification if change source or treatment</td>
<td>✱ Must notify State of change in source or treatment</td>
</tr>
<tr>
<td>✱ Must request permission if meet OWQPs</td>
<td>✱ No longer need to request permission</td>
</tr>
<tr>
<td>✱ Sample collection limited to June - Sept</td>
<td>✱ State may designate alternate period</td>
</tr>
<tr>
<td>✱ No accelerated monitoring</td>
<td>✱ Accelerated monitoring</td>
</tr>
</tbody>
</table>

**Implement on April 11, 2000**
States can approve alternate monitoring period

Should assist seasonal NTNCWSs

Alternate period must be:
- ≤ 4 consecutive months
- time of normal operation when highest likely lead levels

Transition period specified
LCR Minor Revisions
Accelerated Reduced Monitoring

Allowed if 90th percentile levels for two consecutive 6-months are:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>≤ 0.005 mg/L</td>
</tr>
<tr>
<td>Copper</td>
<td>≤ 0.65mg/L</td>
</tr>
</tbody>
</table>

System goes directly to triennial monitoring
State approval not required
LCR Minor Revisions
Sample Invalidation

States may invalidate tap sample if:

- Improper sample analysis
- Site selection criteria not met
- Sample container damaged
- Sample subjected to tampering
Sample Invalidation Documentation

❖ System can request sample invalidation if:
  ● All sample results are presented to State
  ● Documentation is provided for samples to be invalidated

❖ State decision to invalidate sample:
  ● Must be in writing
  ● Cannot be made based on earlier sample results

❖ Invalidated samples not counted for compliance
Sample Invalidation
Replacement Samples

Must be taken:
- If needed to meet minimum sampling requirements
- Within 20 days after invalidation or by end of monitoring period, whichever is later
- From same locations, if possible

Cannot be used for subsequent monitoring period
**LCR Minor Revisions**

**Monitoring Waivers**

- Applies to systems serving ≤ 3,300 people
- Reduces tap monitoring to once every 9 years
- Systems must meet specific materials and monitoring criteria
- States must grant approvals in writing
- States can require additional activities as waiver condition
Monitoring Waivers

Types

Types of monitoring waivers

- Full waiver: both lead and copper
- Partial waiver: lead or copper only
- Pre-existing waiver: granted prior to 4/11/00
Monitoring Waivers
Materials Criteria

- Applies to distribution system, service lines, drinking water supply plumbing, including within homes/buildings served

- Lead criteria:
  - No plastic pipes w/ lead plasticizers or plastic service lines w/ lead plasticizers,
  - No LSLs, lead pipes, lead soldered pipe joints, leaded brass or bronze fittings and fixtures (unless meet lead-leaching std)

- Copper criteria: no copper pipes or service lines
Monitoring Waivers

Monitoring Criteria

- Must have completed one 6-month round of monitoring since meeting materials criteria
- Pre-existing waivers granted without monitoring required must complete round by 9/30/2000
- 90th percentile levels must be

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead criteria:</td>
<td>≤ 0.005 mg/L</td>
</tr>
<tr>
<td>Copper criteria:</td>
<td>≤ 0.65 mg/L</td>
</tr>
</tbody>
</table>

- Must continue to monitor once every 9 years
Monitoring Waivers

Renewal

✓ Recertification every 9 years, with monitoring results

✓ Renewed automatically if system still meets criteria
Monitoring Waivers

Other

- Notification within 60 days by system
  - If change in treatment or adds source
  - If no longer meets materials criteria

- Waiver revocation must be in writing
  - If due to AL exceedance, must begin CCT steps
  - If other than AL exceedance → triennial monitoring
LCR Minor Revisions
Sample Analysis

- Holding time has been revised to be consistent with other metals
- Refers to minimum time allowed after samples have been acidified and before analysis
LCR Minor Revisions

System Reporting

State calculation of 90th percentile levels:

- States must notify system
- Systems must provide sampling results by deadline
- States must provide 90th percentile calculation to system before monitoring period end
- State can incorporate schedule into regulations
Elimination of justification letters for:
- Use of non-tier 1 sites
- Insufficient LSL sample sites

Elimination of sample certifications for:
- first-draw
- resident-collected samples
LCR Minor Revisions
Summary of Tap Monitoring & Reporting Revisions

Changes to Sampling Pool
- Use of representative sites if insufficient tiered sites
- Use of non-first draw samples

Reduced monitoring
- Must use representative sites & State can specify sites
- Notification of change in treatment/new source
- No longer need to request permission to reduce Pb/Cu tap monitoring after meeting OWQPs
- State may designate alternate period
- Accelerated reduced monitoring

Implement on April 11, 2000
LCR Minor Revisions
Summary of Tap Monitoring & Reporting Revisions (Continued)

- Sample Invalidation
- Monitoring waivers
- Reduced holding time
- Reporting changes
  - elimination of sampling justifications
  - elimination of sample collection certifications
  - 90th percentile calculation by State
Lead and Copper Tap & Initial WQP Compliance Examples
Applicable Reporting Requirements

Sample Records

PB90 - Lead 90th percentile levels
CU90 - Copper 90th percentile levels

Violations

51 - Initial lead and copper M/R
52 - Follow-up/routine lead and copper M/R
53 - WQP M/R

Initial Lead and Copper M/R SNC - 51
Applicable Reporting Requirements

Lead Results

ALL Lead 90\textsuperscript{th} Percentile Results (PB90) required for all Large and Medium systems

Reporting of Lead 90\textsuperscript{th} Percentile Exceedances for Small systems continues
Applicable Reporting Requirements

Copper Results

Copper 90\textsuperscript{th} Percentile (CU90) Exceedances now reportable as Sample

Copper 90\textsuperscript{th} Percentile (CU90) Milestone will be converted to a Sample until January 11, 2002

Non-exceedances will not be accepted
Applicable Reporting Requirements

**Initial Tap M/R (51)**

- Contaminant Code “5000”
- Violation Type Code “51”
- Compliance Portrayal Changed
- RTC Requires 2 consecutive, 6-month rounds
- Affects New Systems and Pre-Existing Waivers
- SNC condition
Applicable Reporting Requirements

Lead and Copper Initial Tap SNC

Initial Tap (51) Violation qualifies for SNC when the system fails to complete Initial Tap Monitoring (requires 2 consecutive 6-month sample sets, or the system exceeds the lead or copper action level and is triggered into corrosion control steps.)
Applicable Reporting Requirements

Follow-up/Routine Tap M/R Violations

Contaminant Code “5000”
Violation Type Code “52”
Follow-Up and Routine Monitoring Compliance Portrayal Changed
RTC Sometimes Requires 2 consecutive 6-month rounds
NOT SNC condition
Applicable Reporting Requirements

**Enforcement/RTC**

Formal Enforcement Follow-up actions are Required Reporting

Enforcement/follow-up action must be linked to the violation

Compliance Period/Violation Period End Date is replaced by the RTC action date; therefore, RTC must be reported
Applicable Reporting Requirements

Initial WQP M&R (53)

- Contaminant Code “5000”
- Violation Type Code “53”
- Traditional begin and end dates
- 6-month compliance period
- RTC reporting required
90th Percentile Example
System Collecting 5 samples - Question

Assume 5 samples are collected with lead results as follows:

Site 1: 0.008 mg/L
Site 2: 0.011 mg/L
Site 3: 0.020 mg/L  What is the 90th Percentile Value?
Site 4: 0.008 mg/L
Site 5: 0.008 mg/L
90th Percentile Example
System Collecting 5 samples - Answer

Step 1: Order results from lowest to highest:
No 1: 0.008 mg/L
No 2: 0.008 mg/L
No 3: 0.008 mg/L
No 4: 0.011 mg/L
No 5: 0.020 mg/L

Step 2: Average the 4th & 5th samples highest samples to get 90th percentile value = 0.016 mg/L

\[
\frac{0.011 \text{ mg/L} + 0.020 \text{ mg/L}}{2} = 0.0155 \text{ mg/L}
\]

Step 3: Compare to lead action level → Exceedance
90th Percentile Example
System Collecting More Than 5 samples- Question

<table>
<thead>
<tr>
<th>Site</th>
<th>Lead Result (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 1</td>
<td>0.005</td>
</tr>
<tr>
<td>Site 2</td>
<td>0.015</td>
</tr>
<tr>
<td>Site 3</td>
<td>0.005</td>
</tr>
<tr>
<td>Site 4</td>
<td>0.014</td>
</tr>
<tr>
<td>Site 5</td>
<td>0.014</td>
</tr>
<tr>
<td>Site 6</td>
<td>0.005</td>
</tr>
<tr>
<td>Site 7</td>
<td>0.040</td>
</tr>
<tr>
<td>Site 8</td>
<td>0.014</td>
</tr>
<tr>
<td>Site 9</td>
<td>0.014</td>
</tr>
<tr>
<td>Site 10</td>
<td>0.005</td>
</tr>
</tbody>
</table>

What is the 90th Percentile Value?
90th Percentile Example

System Collecting More Than 5 samples - Answer

Step 1: Order results from lowest to highest:

<table>
<thead>
<tr>
<th>No.</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.005</td>
</tr>
<tr>
<td>2</td>
<td>0.005</td>
</tr>
<tr>
<td>3</td>
<td>0.005</td>
</tr>
<tr>
<td>4</td>
<td>0.005</td>
</tr>
<tr>
<td>5</td>
<td>0.014</td>
</tr>
<tr>
<td>6</td>
<td>0.014</td>
</tr>
<tr>
<td>7</td>
<td>0.014</td>
</tr>
<tr>
<td>8</td>
<td>0.014</td>
</tr>
<tr>
<td>9</td>
<td>0.015</td>
</tr>
<tr>
<td>10</td>
<td>0.040</td>
</tr>
</tbody>
</table>

Step 2: Multiply number of samples by 0.9 to determine which sample represents 90th percentile level

\[ 10 \times 0.9 = 9\text{th sample} \]

Step 3: Compare to lead action level → No Exceedance
90th Percentile Example
System that Collects More Than Minimum Rounding

Example
The system collects 22 copper samples. The 19th highest sample = 1.2 mg/L, the 20th highest = 1.5 mg/L.

Determining 90th percentile using rounding
1. 90th percentile copper level is determined at
   \[22 \times 0.9 = 19.8\text{th sample}\]
2. Round to nearest whole number
3. 90th percentile is 20th highest sample = 1.5 mg/L
90th Percentile Example
System that Collects More Than Minimum
Interpolation

Example
The system collects 22 copper samples.
The 19th highest sample = 1.2 mg/L, the 20th highest = 1.5 mg/L.

Determining 90th percentile using interpolation

1. 90th percentile copper level is determined at
   \[ 22 \times 0.9 = 19.8 \text{th sample} \]
2. Take difference between 19th and 20th sample
   \[ 1.5 - 1.2 = 0.3 \text{ mg/L} \]
3. Multiply by 0.8 =
   \[ 0.8 \times 0.3 = 0.24; \text{ rounded to 0.2} \]
4. Add 0.2 to lower of 2 results = 90th percentile of 1.4 mg/L
Exceedance Determination

Scenario

90th percentile values for tap monitoring between January and June 2000:

- Pb = 0.014 mg/L
- Cu = 1.4 mg/L

1. Has the system exceeded the lead or copper AL?

   The system exceeded the copper action level.

2. Is the system in violation?

   No, an exceedance is not a violation.
State Calculation of 90th Percentile

Scenario for Small System

• 1/1/01 - 6/30/01: System required to conduct monitoring
• 2/15/01: State notifies system that it will calculate 90th percentile
• 5/31/01: State deadline for results/supporting documentation from system
• 6/27/01: System provides results and supporting documentation
  Pb 90th = 0.014 mg/L
  Cu 90th = 1.4 mg/L
• 6/29/01: System receives 90th percentile from the State

1. Is the system in violation?
   The system has not violated a Federal requirement.

2. What problem might occur because system learned its 90th percentile values on 6/29/01?
   System may be unable to meet its WQP monitoring requirements.
# Violation Determination

## Scenario for Large Water System

System reports 90th percentile values for tap monitoring between January 1, 2001 and December 31, 2001:

- **Pb**: 0.012 mg/L
- **Cu**: 1.1 mg/L

Note: System collected only 28 of 30 required samples by 12/31/01

1. **Has the system exceeded the lead or copper AL?**
   No, a 90th percentile value cannot be calculated until the required number of samples have been collected and analyzed.

2. **Is the system in violation?**
   Yes, the system incurred a Routine Tap M/R violation (52 violation type code).

3. **How does the system return to compliance?**
   It must meet monitoring and reporting requirements for 1 period.
Violation Determination

**Scenario for New Small System**

- Required to conduct initial monitoring during 1/1/01-6/30/01
- Completes monitoring by June 30, 2001, but reports on 8/29/01

1. **Is the system in violation?**

   Yes, the system must report results by July 10, 2001 (10 days after the end of the compliance period).

2. **If homeowners participated in the monitoring, does the system have to submit a certification to the State that it provided sample collection instructions?**

   Yes, until the State adopts the new provision that eliminates this requirement.

3. **When does the system return to compliance?**

   On 8/29/01, when it submits all required results.
Pre-existing Monitoring Waivers

Scenario for Small System

- Waiver granted on 7/10/96
- System has never monitored
- Tap monitoring conducted and reported to State on 6/19/01

1. Was the system required to conduct any lead and copper tap monitoring?
   Yes, systems with waivers issued before the LCRMR must perform tap monitoring by 9/30/00.

2. Is the system in violation?
   Yes, it did not meet the 9/30/00 deadline and has incurred an initial tap M/R violation (code 51) and becomes ineligible for its waiver.

3. When did the system return to compliance? Is it a SNC?
   On 6/19/01, when it submitted the required results. Yes, under the new revised definition.
Monitoring Waivers

**Scenario for Small System**
- Waiver granted on 2/15/01
- As of 1/1/08, conducted last tap monitoring on 7/1/98

1. **Is the system required to conduct monitoring after 1998?**
   Yes, systems with waivers must monitor every 9 years, or by 7/1/07 in this example.

2. **Is the system in violation?**
   Yes, it did not meet the 7/1/07 deadline and becomes ineligible for its waiver.

3. **What type of violation has the system incurred? Is the system a SNC?**
   A routine lead and copper tap M/R violation (code 52). No, this violation type is not included in SNC definition.
Sample Invalidation

**Scenario**

- System must collect 10 samples during annual monitoring in 2001
- Provides documentation on 8/15/01 for 2 samples to be invalidated
- State grants invalidation request on 8/30/01

1. **Is the system required to collect replacement samples?**
   Yes, two replacement samples are needed to meet minimum sampling requirements.

2. **What is the deadline for collecting these samples?**

3. **If the system does not collect replacement samples, is it in violation?**
   Yes. It is a routine lead and copper tap M/R violation.
Non-First Draw Samples

**Scenario for System Operating 24-hours per Day**

- System permitted to collect non-first draw samples
- Monitors during 1/1/2002 - 12/31/2002
- Does not collect samples from sites with the longest standing times.

1. **Is the system in violation?**
   Yes. It must collect samples from sites with longest standing times.

2. **What type of violation is this?**
   Routine lead and copper tap M/R violation (code 52).

3. **How does the system return to compliance?**
   It must submit a round of samples from sites with the longest standing times.
Scenario for Seasonal NTNCWS

- System is closed during summer months and is on annual monitoring
- System last sampled on 7/7/01

1. **When are the next set of samples due?**
   December 31, 2002.

2. **What if the system had been on triennial monitoring?**

3. **Can a system incur a violation for failure to meet the transitioning deadline?**
   Yes. It would be a routine lead and copper tap M/R violation.

4. **How does the system return to compliance?**
   System submits monitoring results that meet sampling, analytical, and reporting content requirements.
Reduced Monitoring

Scenario

- Small system never completed 2 rounds of initial monitoring in 2, consecutive, 6-month periods, but has never exceeded action levels
- State approved reduction to triennial monitoring, and current monitoring period is 1/01/99 - 12/31/01
- System last sampled on 6/28/98

1. Did the system meet the requirements for reduced monitoring?
   No. The system must complete two rounds of standard monitoring in two consecutive, six-month compliance periods to qualify for annual monitoring.

2. What if the system had completed two rounds of initial monitoring, but the samples were not collected in consecutive periods?
   System must collect 2 consecutive 6-month rounds.
Accelerated Reduced Monitoring

Scenario for New Water System (population 5,500)

- System put into service on 1/10/00.
- Completes first round of initial monitoring by 6/30/00:
  \[ \text{Pb 90th} = 0.008 \text{ mg/L}; \text{ Cu 90th} = 0.60 \text{ mg/L} \]
- Completes second round of initial monitoring by 12/31/00:
  \[ \text{Pb 90th} = 0.005 \text{ mg/L}, \text{ Cu 90th} = 0.60 \text{ mg/L} \]

1. **Is this system eligible for accelerated reduced monitoring?**

   No. Although it met the criteria for copper, the system did not meet the lead criteria, which require a 90th percentile value of less than or equal to 0.005 mg/L for two, consecutive, six-month periods.

2. **Could the system be reduced to annual monitoring?**

   Yes. The system met the requirements for annual monitoring at a reduced number of sites.
WQP M/R Compliance

Scenario for New Water System

- System serves 10,000 people
- Completes first round of initial monitoring by 12/31/02
- Lead 90th = 0.010 mg/L; Copper 90th = 0.65 mg/L

1. Is this system required to conduct WQP monitoring?
   No. This is a medium system that did not exceed an action level.

2. What if the system served > 50,000 people?
   The system would be required to collect WQP samples within the same compliance period as the tap samples, or by 12/31/02.
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
What Is Corrosion Control?

Corrosion control is chemical treatment that is designed to reduce the corrosivity of water

- Raising pH to make water less acidic
- Adding buffering to make water more stable
Corrosion Control

Applicability

- $\leq 50,000$ that exceed either AL
- $> 50,000$ regardless of 90th percentile*

*(b)(3) systems not subject to CCT requirements

*(b)(3) system = 90th percentile lead - highest source water $< 0.005$ mg/L for 2 consec. 6 mos.
Corrosion Control Treatment Steps

- Study/Treatment Recommendation by System
- State Treatment Determination
- Treatment Installation
- Follow-up Pb/Cu Tap & WQP Monitoring
- State-Specified Operating Parameters
Corrosion Control Optimization Study

- State discretion for ≤ 50,000
- Required for > 50,000, unless (b)(2) or (b)(3) system
- 18 months to complete
- System must identify constraints for:
  - pH and alkalinity adjustment
  - calcium hardness adjustment
  - corrosion inhibitors

Fully document treatment recommendation
Corrosion Control Optimization
Treatment Installation &
Follow-up Monitoring

- State approval/designation of alternative CCT
- 24 months to install
- 2 consecutive 6 months for Pb/Cu tap & WQP follow-up monitoring
  - Entry point monitoring changes to biweekly and 1 sample per entry point
  - ≤ 50,000 systems only collect WQPs during monitoring period(s) in which exceed AL
Corrosion Control Optimization

Designation of OWQPs

State-specified Operating Parameters Become Compliance Measures

- pH
- alkalinity
- calcium
- orthophosphate
- silica

State sets OWQPs within 6 months of receiving follow-up results
Corrosion Control Optimization
Monitoring after OWQPs Specified

**WQP tap monitoring every 6 months**

**Reduced tap WQP monitoring if system in compliance with OWQPs for:**

- 2 consecutive 6 months ➔ reduced no. of sites
- 3 consecutive years of 6-month monitoring ➔ annual frequency
- 3 consecutive years of annual monitoring ➔ triennial frequency

**Entry point remains biweekly**

* Systems serving ≤ 50,000 people, and ≤ both ALs, are not required to collect WQPs
Corrosion Control Optimization
Discontinuing Treatment Steps

≤ 50,000 can stop CCT steps if at or below both ALs for 2 consecutive monitoring periods

Must recommence steps if exceed during any subsequent round
LCR Minor Revisions
Optimized Systems with CCT

LCRMR clarify that “optimized” systems with treatment in place must:

- Maintain corrosion control treatment; and
- Meet requirements that State determines are needed to maintain optimal treatment

Implement on April 11, 2000
LCR Minor Revisions
Clarification of (b)(2) system requirements

“Optimized” systems that have completed CCT prior to 12/7/92 must:

- Monitor for WQPs after OWQPs are designated
- Continue lead and copper tap sampling

Implement on April 11, 2000
**LCR Minor Revisions**
Expanded definition of (b)(3) system

Systems also qualify as “(b)(3)” system if for 2 consecutive 6 month periods:

- source water lead levels < MDL, and
- 90th percentile lead level \( \leq 0.005 \text{ mg/L} \)
LCR Minor Revisions
Clarification of (b)(3) system requirements

★ (b)(3) systems must:
- Collect tap samples every 3 years (once between 10/1/97 and 9/30/00)
- Not exceed the copper action level by 7/12/01; &
- Notify State of change in treatment or new source

★ Systems that no longer are (b)(3) must:
- Begin CCT steps under §141.81(e)

★ Implement on April 11, 2000
OWQP Noncompliance

LCR:
- Any value or average is outside OWQP range or below minimum

LCRMR:
- Cannot be outside OWQP range or below minimum on > 9 days in 6-month period
New criteria for evaluating OWQP compliance:

- Compliance based on a 6-month period
- First 6-month period begins when State specifies OWQPs
- Daily values determined for each WQP at each sampling location
- Daily values determined even if no monitoring has occurred
Excursions

- Excursion = “daily value” below the minimum value or outside the OWQP range
- Multiple excursions on same day count as 1 excursion
- Cannot have excursions on > 9 days during 6 month monitoring period
- > 9 days in 6 month period with excursions = violation
- Systems in violation return to standard Pb/Cu tap and WQP tap monitoring
LCK Minor Revisions

Representative WQP Entry Point Monitoring

❖ Applies to ground water systems

❖ Limits entry point WQP monitoring to representative sites after CCT installed

❖ Must demonstrate sites are representative of water quality conditions throughout system
LCR Minor Revisions
Accelerated Reduced Tap WQP Monitoring

Applies to > 50,000

Applies to distribution (“tap”) WQP monitoring

Allows systems to monitor triennially for tap WQPs more quickly than before
System must for 2 consecutive monitoring periods:
  qualify for accelerated Pb/Cu tap monitoring &
  be in compliance w/ OWQPs
**LCR Minor Revisions**

Summary of CCT Revisions

- Clarification of treatment operation and monitoring requirements for:
  - Systems with CCT installed
  - (b)(3) systems
- (b)(3) systems cannot exceed the copper AL
- System with source lead < MDL can qualify as (b)(3) system
- New OWQP compliance procedure
- Representative WQP entry point monitoring
- Accelerated reduced WQP “tap” monitoring

Implement on April 11, 2000
Applicable Reporting Requirements

Reported as 53 violation type
  Initial WQP M/R (pre-LCRMR code = 53)
  Follow-up or routine entry point WQP M/R (pre-LCRMR code = 54)
  Follow-up or routine tap WQP M/R (pre-LCRMR code = 55)

Reported as 59 violation type
  WQP Entry Point Noncompliance (pre-LCRMR code = 59)
  WQP Tap Noncompliance (pre-LCRMR code = 60)
Applicable Reporting Requirements

If New OWQP Compliance Procedure Is Not Adopted

Except for consolidation of violation types, reporting remains unchanged

Initial M/R violations are specific to 6-month period

Follow-up, routine tap WQP M/R or OWQP tap noncompliance is 6-month, 12-month, or 36-month violation

Entry point M/R or OWQP noncompliance at entry points is quarterly violation (one violation type per quarter)

Separate tap and entry point violations are reported
Applicable Reporting Requirements

If New OWQP Compliance Procedure Is Adopted
  Fixed 6-month compliance period
  One OWQP violation is reported per 6-month
  One M/R violation is reported per 6-month
Applicable Reporting Requirements

WQP M/R & OWQP Noncompliance Violations

Regardless of whether the new OWQP compliance procedure is adopted:

- RTC must be reported
- Intentional No-Action candidate apply in certain circumstances
- No SNC conditions
Applicable Reporting Requirements

OCCT Treatment Technique Violations

No violation code changes to:
   OCCT study/recommendation (57 violation code)
   OCCT Installation/Demonstration (58 violation code)

Consolidated OCCT/SOWT Installation and/or Demonstration into one SNC
Applicable Reporting Requirements

OCCT Treatment/Study Recommendation

Large systems are only subject to Study violation

Medium and small subject to both Recommendation and Study violation
WQP M/R Compliance

Scenario
- System serves 55,000 people
- Installed CCT
- Fails to collect WQP samples at entry points during July and August 2002
- System is on annual WQP tap monitoring during 2002 and collects samples

1. Is this system in violation?
   Yes. The system is in violation for the 6-month period of July - December 2002 for failure to conduct all of its required entry point WQP monitoring.

2. How can this system return to compliance?
   It must meet monitoring and reporting requirements for an entire 6-month period.
WQP M/R Compliance

**Scenario**

- System serves 8,000 people
- System has installed corrosion control treatment
- 7/1/00 - 12/31/00: Pb 90th = 0.018 mg/L; Cu 90th = 1.0 mg/L
- 1/1/01 - 6/30/01: Pb 90th = 0.013 mg/L; Cu 90th = 1.0 mg/L

1. **Is this system required to collect WQP samples during 7/1/00-12/31/00?**
   Yes. The system exceeded the lead action level and must collect WQP samples.

2. **Is this system required to collect WQP samples during 1/1/01-6/30/01?**
   No. The system did not exceed the AL and is not required to collect WQP samples.
Corrosion Control Study

Scenario

- State notifies system on 9/10/01 that corrosion control study is required
- State receives study on 9/10/03; study contains evaluation of one type of CCT

1. Did the system report the study on-time?
   No. The study was due by 3/10/03 (18 months after the State required the study to be completed).

2. Does the study contains the required components?
   No. A system must evaluate 3 types of CCT.
Optimal Corrosion Control
Installation

Scenario

- 12/15/97: 90th percentile lead value = 0.020 mg/L
- 6/9/98: State determines type of OCCT to be installed
- 10/11/2000: State receives certification of installation

1. **Is this system in violation?**
   Yes. Certification was due by 6/9/2000 (24 months after State determination).

2. **When is the system back in compliance?**
   Once certification is received by State, or on 10/11/2000.

3. **Is the system a SNC?**
   No, the 90th percentile level was < 0.030 mg/L.
Next Steps After Exceedance

Scenario for Small System (population 3,100)

- System on annual monitoring schedule & collects 10 samples
- Lead and copper tap results for 1/01/00-12/31/00:
  Pb 90th = 0.011 mg/L; Cu 90th = 1.4 mg/L

1. What are the next steps and deadlines if this is the first time the system exceeds an action level?

   The system must:
   - collect WQPs before 12/31/00;
   - perform source water lead and copper monitoring before 6/30/01;
   - make SOWT and OCCT recommendations before 6/30/01; and
   - begin an OCCT study (if requested by the State).

2. What is the system’s schedule for lead and copper tap monitoring?

   It is required to conduct lead and copper tap monitoring for 2, 6-month periods after CCT installation at 20 sites.
System that Increases Size to > 50,000

Scenario for Medium System that Becomes A Large System

- 2/11/00: System adds new connections and increases size from 45,000 to 75,000 people
- Monitoring results during annual tap monitoring conducted during 1999
  Lead 90th = 0.010 mg/L; Copper 90th = 1.1 mg/L

1. What are the system’s corrosion control treatment requirements?
   - System completes a corrosion control study and submits recommendation within 18 months from State notification
   - State determines CCT within 6 months of study/recommendation submitttal
   - System installs treatment within 24 months

2. What are the system’s monitoring requirements?

   System conducts follow-up lead and copper and WQP monitoring for 2 consecutive, 6 months following treatment installation. System continues on semi-annual monitoring until it qualifies for reduced monitoring by meeting its OWQPs.
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
Public Education

Applicability

Any system that > lead AL

Continues as long as AL is exceeded

STOP: Whenever at or below lead AL for 1 monitoring period

Recommence: If exceed in subsequent period
Public Education
Mandatory Language

Minimum Content Specified in Rule

- Introduction
- Health Effects
- Sources of Lead
- Steps at Home

System Can Add Information
Not the same as Public Notification
Within 60 days of exceeding Lead Action Level:

- Bill stuffers
- Pamphlets to sensitive groups (e.g., pediatricians)
- Major newspapers

Public Service Announcement (PSA) to radio/TV
Public Education
Delivery Requirements for CWSs (Cont.)

❖ PSAs every 6 months

Inserts, pamphlets, newspaper notification every 12 months
Public Education
Delivery Requirements for NTNCWSs

_within 60 days of lead exceedance_
  * posters in public places and buildings served
  * pamphlets/brochures to each person served

Repeat annually
LCR Minor Revisions
Content and Delivery Flexibility

All CWSs may:

- Delete language regarding LSLs
- Change language regarding building permit record availability
- Delete the references to “control” of a LSL
- Send materials separately from water bills
LCR Minor Revisions
Content and Delivery Flexibility (Cont.)

CWSs serving \( \leq 3,300 \) people may:

- Forego PSAs
- Forego notification via newspapers*
- Limit distribution of pamphlets*, but must:
  - mail or hand deliver materials to customers who don’t receive water bills
  - deliver to wider audience if State requires

*501-3,300 need State approval
LCR Minor Revisions
Content and Delivery Flexibility (Cont.)

NTNCWSs may:

☞ Use specified alternative language
☞ Delete references to LSLs in their language
☞ Use electronic transmission

Special-case CWSs (prisons, hospitals) may:
Use NTNCWS language and delivery methods
LCR Minor Revisions
Compliance Reporting to State

More Timely Reporting

LCR

- Due by December 31st

LCRMR

- Due within 10 days after each period in which public education was required
- States can allow system to forego resubmission of distribution list

Implement on April 11, 2000
LCR Minor Revisions
Summary of Public Education Revisions

Remarks:

_allow content and delivery flexibility
    • delete obsolete or irrelevant language
    • mail notices separately from water bill

Reduce requirements for CWSs serving ≤ 3,300

Make NTNCWSs requirements more appropriate
    • specific NTNCWSs language
    • use of electronic transmission

Treat special-case CWSs like NTNCWSs

Require more timely system compliance reporting

Allow system to forego resubmission of distribution list

☆ Implement on April 11, 2000
Public Education

Compliance Examples
Applicable Reporting Requirements

65 - Violation type code (no change)
SNC definition has not been revised
    system with violation and lead 90th percentile ≥ 0.030 mg/L
Applicable Reporting Requirements

Public Education

ONE Public Education (PE) Violation must be reported for EACH discrete PE compliance period requirement (i.e., 60 days, semi-annual, and annual)

PWS could incur 3 separate violations in first 14 months after exceedance

10-day period to report to State is not included
Public Education

Scenario

- CWS serves 6,000 people
- 1/1/99-12/31/99: Pb 90th percentile = 0.014 mg/L; Cu 90th percentile = 0.9 mg/L
- 1/1/00-12/31/00: Pb 90th percentile = 0.020 mg/L; Cu 90th percentile = 0.9 mg/L

1. **Is this system required to deliver public education?**
   Yes, it exceeded the lead action level.

2. **What is the system required to do and in what timeframe?**
   Within 60 days of exceedance (by 3/1/01), must send notices with water bill, provide newspaper notification, deliver pamphlets/brochures, & PSAs.

3. **When is the system required to report compliance to the State?**
Public Education

**Scenario**

- CWS serves 50 people
- 1/1/-12/31/01: Pb 90th percentile = 0.017 mg/L;
  Cu 90th percentile = 1.2 mg/L

1. **Is this system required to deliver public education?**
   Yes it exceeded the lead action level.

2. **If the system does not deliver PSAs is it in violation?**
   The system is not in violation *if* the State has adopted the small system public education provisions.
Public Education

Scenario

- NTNCWS serves 4,000 people
- 1/1/-6/30/01: Pb 90th percentile = 0.012 mg/L; Cu 90th percentile = 1.6 mg/L

1. Is this system required to deliver public education?

   No, public education is not triggered by a copper action level exceedance.
Public Education

Scenario

• CWS serves 2,800 people
• System first delivered public education on February 1998
• System continues to exceed the lead action level in 1999 and 2000
• 1/1/-6/30/01: Pb 90th percentile = 0.020 mg/L; Cu 90th percentile = 0.9 mg/L
• 7/1/-12/31/01: Pb 90th percentile = 0.012 mg/L; Cu 90th percentile = 0.9 mg/L

1. Is this system required to deliver public education during 2001?

   Yes, the system is required to deliver public education by February 2001.

2. If the system did not deliver any public education during 2001, how does the system come back into compliance?

   The system must complete one more round of public education.
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
Monitoring & Treatment for Lead and Copper at the Source Steps

**Triggered by lead or copper exceedance**

- Within 6 months of exceedance:
  - System provides monitoring results/treatment recommendation

- Within 6 months of results:
  - State treatment decision
    - ion exchange
    - reverse osmosis
    - lime softening
    - coagulation/filtration
    - no treatment added
Source Water Monitoring & Treatment
Steps If Treatment Is Needed

If source water treatment is needed:

- 24 months after State decision
  - System must install treatment
- 12 months after installation
  - System conducts follow-up monitoring for 2 consecutive 6-months
- 6 months after follow-up monitoring:
  - State sets MPLs for both lead and copper
- System must be at or below MPLs
# Source Water Monitoring & Treatment

## Routine/Reduced Monitoring

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Routine Monitoring</th>
<th>Reduced to every 9 years if:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground water</td>
<td>once during 3-year compliance period in effect</td>
<td>Meet MPLs for 3 consecutive compliance periods</td>
</tr>
<tr>
<td>Surface or combined</td>
<td>annually</td>
<td>Meet MPLs for 3 consec. yrs</td>
</tr>
</tbody>
</table>

* Assumes system continues to exceed Pb and/or Cu AL
Once MPLs are set or State decides no SOWT is needed, source water monitoring is not required when:

- The system is at or below both ALs for entire source water monitoring period

  Example:
  - system is on 9-year source water monitoring during 2002-2010
  - 90th percentiles ≤ ALs for all tap monitoring during 2002 to 2010 ➔ no source monitoring
LCR Minor Revisions
Source Water Monitoring Changes

Reduced monitoring to once every 9 years for systems w/o MPLs if source water levels for:

- Lead are $\leq 0.005$ mg/L
- Copper are $\leq 0.65$ mg/L

Must maintain levels for 3 consecutive compliance periods:

- Ground water = 9 years
- Surface water = 3 years
Resampling triggers have been changed for composite samples to:

- ≥ 0.160 mg/L for copper
- ≥ 0.001 mg/L for lead

Compositing done by certified laboratory

- Labs not required to achieve Copper MDL to analyze composite source water samples
**LCR Minor Revisions**

Summary of Source Water Monitoring Revisions

- Reduced monitoring for systems w/o MPLs
- Revisions to source water resampling triggers for composite samples
- Compositing by certified lab
- Labs not required to achieve Copper MDL to analyze composite source water samples

☆ Implement on April 11, 2000
Source Water

Compliance Examples
Applicable Reporting Requirements

**Source Water M/R & MPL Noncompliance**

No change to violation type code for:
- Source water M/R violations (56 violation type)
- MPL noncompliance (63 violation type)

Violation code change for:

<table>
<thead>
<tr>
<th>Violation Description</th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOWT recommendation</td>
<td>61</td>
<td>57</td>
</tr>
<tr>
<td>SOWT installation</td>
<td>62</td>
<td>58</td>
</tr>
</tbody>
</table>

Consolidated OCCT/SOWT Installation and/or Demonstration SNC
Applicable Reporting Requirements

Source Water M/R & MPL Noncompliance

Converted the end dates to 12/31/2015

Source water follow-up monitoring requires two consecutive, 6-month rounds - only 1 M/R violation is reported

Monitoring is conducted AFTER the lead or copper action level exceedance (No Grandfathering)
Applicable Reporting Requirements

**MPL Noncompliance**

A system may incur separate Violations for exceeding the Lead MPL and the Copper MPL.

Only ONE MPL Noncompliance Violation must be reported for a single contaminant regardless of how many entry points are in violation.

Contaminant code is:

- 1022 = Copper
- 1030 = Lead

reported in lieu of 5000 code that is used for all other LCR or LCRMR violations.
Source Water M/R

Scenario for a New System

- The system’s first lead and copper tap monitoring period is 1/1/00 - 6/30/00
- Pb 90th percentile = 0.012 mg/L; Cu 90th percentile = 1.9 mg/L

1. Is this system required to collect source water samples?
   Yes.

2. When are these samples due?
   By 12/31/00 (within 6 months of exceedance).

3. If the system has the source water samples analyzed for copper only, is it in violation?
   Yes. It must have the samples analyzed for both lead and copper.

4. How does the system return to compliance?
   Must collect source water samples and have them analyzed for both lead and copper samples for a 6-month compliance period.
Source Water M/R

Scenario for a New System

- 6/30/01: Source water treatment installed
- 1/1/-6/30/02: System collects one round of follow-up monitoring
- 9/15/02: State reviews status of system

1. Assuming the system followed proper monitoring and analytical procedures, is it in violation with its source water M/R requirements?
   Yes. 2 consecutive 6-month rounds of follow-up monitoring are required.

2. How does the system return to compliance?
   It collects 2 consecutive 6-month round of follow-up monitoring.
Source Water M/R

Scenario

• On 9-year source water monitoring cycle of 1/1/02 - 12/31/10
• Lead and Copper 90th percentile results are as follows:
  - 1/1/00 - 12/31/02: Pb 90th = 0.006 mg/L; Cu 90th = 1.1 mg/L
  - 1/1/03 - 12/31/05: Pb 90th = 0.007 mg/L; Cu 90th = 1.0 mg/L
  - 1/1/06 - 12/31/08: Pb 90th = 0.006 mg/L; Cu 90th = 1.2 mg/L
  - 1/1/09 - 12/31/11: Pb 90th = 0.007 mg/L; Cu 90th = 1.5 mg/L

1. Is the system required to collect source water samples during 1/1/02 - 12/31/10?

   If tap samples were collected during 2009 or 2010, then yes. If tap samples were collected during 2011, then no source water samples are required. However, source water monitoring must be conducted during the next compliance cycle of 1/1/11 to 12/31/19.
Source Water M/R

Scenario
- System is a surface water system
- System exceeds the lead action level
- State determines no source water treatment is needed
- Source water monitoring results are as follows:
  1/1/00 - 12/31/00: Pb = 0.005 mg/L; Cu 90th = 0.6 mg/L
  1/1/01 - 12/31/01: Pb = 0.005 mg/L; Cu 90th = 0.5 mg/L
  1/1/02 - 12/31/02: Pb = 0.005 mg/L; Cu 90th = 0.6 mg/L

1. What is the system’s source water monitoring schedule after 2002?

Under the LCRMR, this system can monitor once every 9 years because it has maintained source water lead levels of ≤ 0.005 mg/L and source water copper levels of ≤ 0.65 for 3 consecutive years.
SOWT Recommendation

Scenario for New Systems

• System exceeds the lead action level for first time during annual monitoring conducted in 2000
• Initial source water results: Pb = 0.005 mg/L; Cu = 0.6 mg/L

1. Is the system required to provide a source water treatment recommendation?

Yes. A recommendation must be provided with the initial source water monitoring results within 6 months of exceeding the AL, even if the recommendation is no treatment.
SOWT Installation

Scenario
• 1/15/1998: State determines type of SOWT to be installed
• 7/15/2000: System installs SOWT
• Most recent tap monitoring results: Pb 90th = 0.035 mg/L; Cu 90th = 1.2 mg/L

1. Is the system in violation?
   Yes. The system did not install SOWT on-time (within 24 months of State decision).

2. Is the system an SNC?
   Yes because the system incurred a SOWT violation and its most recent lead 90th percentile level was ≥ 0.030 mg/L.
MPL Compliance

Scenario
* System has 1 entry point
* Lead MPL = 0.008 mg/L; Copper MPL = 0.7 mg/L
* Source water results for 2000: Pb = 0.007 mg/L; Cu = 0.6 mg/L
* Source water results for 2001: Pb = 0.008 mg/L; Cu = 0.8 mg/L

1. Is the system in compliance with its MPLs for 2000?
   Yes. The system did not exceed either MPL.

2. Is the system in compliance with its MPLs for 2001?
   The system is in compliance with its lead MPL, but has exceeded the copper MPL.
MPL Compliance

**Scenario**
- System has 3 entry points
- State set MPLs for Pb at 0.006 mg/L & Cu at 0.7 mg/L
- Source water monitoring results are:
  - Entry point 1: Pb = 0.006 mg/L; Cu = 0.6 mg/L
  - Entry point 2: Pb = 0.008 mg/L; Cu = 0.8 mg/L
  - Entry point 3: No sample collected

1. **Is the system in violation?**

   Yes. The system is in violation with 3 requirements. Failure to meet its lead and copper MPLs and failure to collect enough source water samples.
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
Lead Service Line Replacement (LSLR)

Applicability

- Triggered by continued exceedance of lead action level
- State can require if system is more than 1 year late installing CCT or SOWT
- 7% of LSLs replaced each year (15 years total)
- State can require shorter schedule
LSLR
LSLs Not Requiring Replacement

- No Replacement Required for Individual Lines ≤ 0.015 mg/L Lead

Monitoring Methods
- direct tap into line
- temperature change
- flush volume between end of line & tap
LSLR
Continued Applicability

STOP
LSLR stops when $\leq$ Pb AL for 2 consecutive monitoring periods

LSLR recommences if system again exceeds lead AL
**LCR Minor Revisions**

**Ownership Terminology**

**Ownership Replaces Control**

- “Control” terminology eliminated
- Systems triggered into LSLR must:
  - Replace portions of LSLs they own
  - Document which portions they own

💡 Implement on April 11, 2000
LCR Minor Revisions
Partial LSL Replacement

- Clarify who receives offer from system to replace privately-owned portion

- Strengthen requirements for partial LSLR
  - Notification prior to partial LSLR
  - Samples collected after partial LSLR
  - New reporting requirements for systems

🌟 Implement on April 11, 2000
Offer to replace privately-owned portion

- LCR
  - Unclear if offer to users or building owner

- LCRMR
  - Clarify offer to owner of property or authorized agent

$$$ Cost remains the responsibility of line owner

Implement on April 11, 2000
**LCR Minor Revisions**

**Notification of Partial LSLR**

**If system only replaces portion it owns:**

- **LCR**
  - No notification requirement except to collect first-flush sample

- **LCRMR**
  - System must notify residents at least 45 days prior to replacement
  - Collect representative service line sample, and analyze within 72 hours of replacement

[Implement on April 11, 2000]
LCR Minor Revisions
Notification of Partial LSLR

If system only replaces portion owned:

LCR
- Report results to residents within 14 days of partial LSLR
- No requirement to report results to State

LCRMR
- Report results to owner/residents within 3 business days after receiving results
- Submit monitoring results to State, unless otherwise directed

Implement on April 11, 2000
LCR Minor Revisions
Summary of LSLR Changes

- Elimination of control terminology
- Clarification of who receives replacement offer
- Stronger partial LSL notification requirements
  - Notification of replacement 45 days prior
  - General content of notification specified
- Representative service line sample
  - Analyzed with 72 hours
  - Results reported within 3 business days
- Partial LSL reporting to State

Implement on April 11, 2000
Lead Service Line Replacement

Compliance Examples
Applicable Reporting Requirements

LSLR Violation (64)

No change to violation type code 64

Violation 64 now includes:
  Violation of partial LSLR requirements
  Failure to complete annual designated replacement rate
Applicable Reporting Requirements

**LSLR Violation (64)**

Begin dates based on initial reason for violation
One LSLR violation reported at a time
If LSLR violation is resolved, report a new violation for subsequent noncompliance
Intentional No-Action may apply
Applicable Reporting Requirements

LSLR Milestone

• Required when system is first triggered into LSLR
• Required when system “retriggered” into LSLR requirements
• Replacement rate is no longer required to be reported
# LSLR Compliance

## Scenario

- **Dec. 1998:** Installs SOWT
- **Jan-June 1998:** Follow-up monitoring 90th percentile value: $\text{Pb} = 0.020 \text{ mg/L}$
- **July-Dec 1998:** Follow-up monitoring 90th percentile value: $\text{Pb} = 0.022 \text{ mg/L}$
- **Dec. 1999:** Installs CCT
- **Jan-June 2000:** Follow-up monitoring 90th percentile value: $\text{Pb} = 0.020 \text{ mg/L}$
- **July-Dec 2000:** Follow-up monitoring 90th percentile value: $\text{Pb} = 0.018 \text{ mg/L}$

1. **Is the system required to replace LSLs?**
   
   Yes.

2. **When must replacement begin?**

   July 1, 2000.
LSLR Compliance

Scenario
• Dec. 1998: Installs SOWT
• Jan-June 1998: Follow-up monitoring 90th percentile value: Pb = 0.020 mg/L
• July-Dec 1998: Follow-up monitoring 90th percentile value: Pb = 0.022 mg/L
• Dec. 1999: Installs CCT
• Jan-June 2000: Follow-up monitoring 90th percentile value: Pb = 0.012 mg/L
• July-Dec 2000: Follow-up monitoring 90th percentile value: Pb = 0.011 mg/L

1. Is the system required to replace LSLs? If so, when?

No. It did not exceed the lead action level after CCT was installed.
## LSLR Compliance

### Scenario
- **Dec. 1999:** Installs CCT
- **Jan-June 2000:** Follow-up monitoring 90th percentile value: \( \text{Pb} = 0.016 \text{ mg/L} \)
- **July-Dec 2000:** Follow-up monitoring 90th percentile value: \( \text{Pb} = 0.013 \text{ mg/L} \)

### 1. Is the system required to replace LSLs? If so, when?

Yes the system must begin LSLR on July 1, 2000 because it continued to exceed the lead action level during Jan. - June 2000.

**System can discontinue LSLR if it has 2 consecutive monitoring periods at or below the lead action level.**
LSLR Compliance

**Scenario**
- July 1, 2000: System required to replace LSLs
- July 10, 2000: State specifies annual replacement rate of 10 percent
- Aug 20, 2000: System submits letter:
  - indicating it replaced 6% of the LSLs, and
  - with LSL monitoring results that show 4% of its lines contribute < 0.015 mg/L of lead

1. **Is the system in violation?**
   No. The system can count LSLs that contribute < 0.015 mg/L toward its annual replacement requirement.

   System must comply with LSLR schedule set by the State.
LSLR Compliance

### Scenario
- Required annual replacement rate = 7%
- Yr 2000, system replaces 15% of LSLs
- Yr 2001, system replaces 0% of LSLs

1. **Is the system in violation in 2001?**
   
   No. If approved by the State, the system can count LSLs replaced during one year toward the next year’s replacement requirements.
LSLR Compliance

<table>
<thead>
<tr>
<th>Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Required annual replacement rate = 7%</td>
</tr>
<tr>
<td>- System is on annual tap monitoring</td>
</tr>
<tr>
<td>- Yr 2000, system replaces 7% of LSLs; Pb 90th = 0.011 mg/L</td>
</tr>
<tr>
<td>- Yr 2001, system replaces 5% of LSLs; Pb 90th = 0.009 mg/L</td>
</tr>
</tbody>
</table>

1. Is the system in violation for 2001?
   No. The system is below the lead action level for two consecutive monitoring periods and can discontinue LSLR.

2. What would be the system’s compliance status if it had not replaced any lines in 2000 or 2001?
   The system would be in violation for compliance period of Jan - Dec. 2000 only.

3. How would this system return to compliance for the Yr 2000 LSLR violation?
   The system is below the lead action level for 2 consecutive monitoring periods and can discontinue LSLR. An “intentional no-action” is reported in lieu of RTC.
Partial LSLR Compliance

Scenario
- Owner does not want privately-owned LSL portion replaced
- 2/15/01: system notifies owner of partial replacement, impacts, protective measures
- 3/1/01: system replaces the portion that it owns
- 3/1/01: system collects LSL sample
- 3/15/01: system receives analytical results
- 3/30/01: system reports results to residents served by line
- 5/10/01: system provides results to the State

1. Is the system in violation?

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Is the system in violation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification prior to pLSLR</td>
<td>Not if pLSLR done w/emergency repairs</td>
</tr>
<tr>
<td>LSLR sample</td>
<td>No, collected within 72 hours of pLSLR</td>
</tr>
<tr>
<td>Results to residents</td>
<td>Yes, was not done within 3 business days</td>
</tr>
<tr>
<td>Results to State</td>
<td>Yes, due by 4/10/01, unless State modifies req’t</td>
</tr>
</tbody>
</table>
Partial LSLR Compliance
Replacement & pLSLR

Scenario
- 3/30/02: system required to notify owners and residents of LSL sample results.
- 5/31/02: system reports results to residents served by line
- 12/30/02: system only replaced 5% of its LSLs (required to replace 7% in the year 2002)

1. How many LSLR violations should be reported for the system?
   Two. The system did not meet its pLSLR notification but corrected the violation before it incurred a violation for not meeting the requirements of its LSLR schedule.

   • If the system did not RTC in 2002 for failing to notify its residents:
     a. How many violations would be reported for the system?
        One.
     b. What action would be reported if the system was at or below the lead action level for 2 consecutive, 6-month monitoring periods during 2002?
        An “Intentional no-action”.
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
State Reporting Requirements
LCR

Under the LCR, States reported each system that:

- Exceeded lead or copper AL and date
- Required to complete CC study & date study received
- State determined CCT, date, and installed OCCT
- State designated OWQPs & date
- Required to install SOWT, date, and installed SOWT
- State set MPLs
- Required to replace LSLs, on accelerated schedule, and in compliance with schedule
Under the LCRMR, States report:

- All 90th percentile Pb values for $> 3,300$
- 90th percentile Pb exceedances for $\leq 3,300$
- 90th percentile Cu exceedances for all systems
- More streamlined LSL replacement milestone
**LCR Minor Revisions**

**LCRMR State Reporting Requirements**

**Under the LCRMR, States report (cont.):**

- New “Deem” milestone
- New “Done” milestone
- EPA requests reporting by 2/15/01
## LCR Minor Revisions
### Deem Milestone

<table>
<thead>
<tr>
<th>C817 Code Value</th>
<th>Definition</th>
<th>Day Reported to SDWIS/FED</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>System ≤ 50,000 that is at or below both ALs for 2 consecutive 6 months</td>
<td>State determines system met (b)(1) criteria</td>
</tr>
<tr>
<td>WQP</td>
<td>A (b)(2) system or one for which State has designated OWQPs</td>
<td>Date State Designates OWQPs</td>
</tr>
<tr>
<td>B3</td>
<td>A (b)(3) system</td>
<td>State determines system met (b)(3) criteria</td>
</tr>
</tbody>
</table>
LCR Minor Revisions
Done Milestone

-Replaces several LCR milestones
- STIN: System installs SOWT
- OTIN: System installs CCT
- MPLS: State sets MPLs
- OWQP: State sets OWQPs

System can become “undone”
- No longer qualifies as (b)(1) or (b)(3) system
- Does not meet MPLs or OWQPs
LCR Minor Revisions

LCRMR State Reporting Schedule

Schedule for reporting new requirements

- Option of reporting old requirements until 1/11/02
- Report only new requirements by 1/12/02
State Recordkeeping Requirements
LCRMR

 реализует требования учета, соответствующие новым решениям.

- Дополнительные действия для поддержания оптимального контроля коррозии
- Содержание письменных материалов для общественного образования и их распространение
- Использование не-первичных проб
- Установленные места отбора пробы для систем на сокращённом мониторинге
State Recordkeeping Requirements
LCRMR

Additional recordkeeping requirements (continued)

- Alternative sample collection periods for reduced monitoring
- Sample invalidation
- Monitoring waivers, revocations, renewals
- Representative entry point locations
State Recordkeeping Requirements
LCRMR

* Additional recordkeeping requirements (continued)
  - Compliance with partial LSLR
  - Resubmission of public education distribution list
  - 90th percentile calculations

* Removes determination of limited control of LSL
State Reporting

Compliance Examples
“Deemed” Determination

Scenario

- System serves 75,000 people
- July - Dec 1993: Pb 90th = 0.007 mg/L; Cu 90th = 0.7 mg/L
- Jan. - June 1994: Pb 90th = 0.008 mg/L; Cu 90th = 0.8 mg/L
- No lead or copper is detected in source water samples collected during 1993 and 1994.
- 4/30/00: State reviews file to determine if system meets “deemed” criteria

1. Does the system meet the “deemed” criteria?

   No. A large system can only meet the deemed criteria when the State sets OWQPs or it qualifies as a (b)(3) system.
“Deemed” Determination

**Scenario**
- System serves 55,000 people
- Jan - June 1992:
  - source Pb = 0.005 mg/L;  Pb 90th = 0.007 mg/L;  Cu 90th = 1.2 mg/L
- July - Dec  1992:
  - source Pb = 0.005 mg/L;  Pb 90th = 0.008 mg/L;  Cu 90th = 1.4 mg/L
- July - Dec  2000:
  - source Pb = 0.005 mg/L;  Pb 90th = 0.008 mg/L;  Cu 90th = 0.8 mg/L

1. **Does the system meet the “deemed” criteria?**
   
   Yes, on Dec. 31, 2000 when it meets the (b)(3) criteria, based on the LCRMR definition.

2. **What if the system was at or below the copper action level during monitoring conducted in 1992.**
   
   The system would have met the deemed criteria on Dec. 31, 1992.
“Deemed” & “Done” Determinations

Scenario
- System serves 35,000 people
- System has lead service lines
- July - Dec. 31 1992: Pb 90th = 0.020 mg/L; Cu 90th = 1.2 mg/L
- Dec. 15, 1996: System installs CCT
- Jan - June 1997: Pb 90th = 0.007 mg/L; Cu 90th = 0.8 mg/L
- July to Dec 1997: Pb 90th = 0.007 mg/L; Cu 90th = 0.8 mg/L
- May 15, 1998: State designates OWQPs

1. **Does the system meet the “deemed” criteria?**
   Yes, on 5/15/98, when the State sets OWQPs.

2. **Does the system meet the “done” criteria?**
   Yes, also on 5/15/98.

3. **What if it had exceeded the lead AL level during 1997?**
   No, the system would have been triggered into LSLR and would not be “done” until LSLR completed or no longer required.
“Done” Determination

Scenario

- System serves 500 people
- Initial monitoring:
  - July - Dec. 1993: Pb 90th = 0.007 mg/L; Cu 90th = 1.2 mg/L
  - Jan - June.1994: Pb 90th = 0.007 mg/L; Cu 90th = 1.1 mg/L
- Reduced monitoring during Aug 2001:
  - Pb 90th = 0.008 mg/L; Cu 90th = 1.5 mg/L
- Monitoring after CCT installation:
  - Jan - June 2004: Pb 90th = 0.006 mg/L; Cu 90th = 0.7 mg/L
  - July - Dec 2004: Pb 90th = 0.007 mg/L; Cu 90th = 0.6 mg/L
- May 1, 2005: State designates OWQPs

1. Does the system meet the “Done” criteria?

   June 31, 1994  Done, meets (b)(1) criteria
   Aug 2001      Undone because exceeds copper AL
   May 1, 2005   Done, State sets OWQPs.
SDWIS/FED Reporting Milestones

DEEM Milestone

• Reason Code (C817) used for DEEM milestone

• Represents the basis for the State’s determination that a system is “deemed” to be optimized under the LCR/LCRMR

• Permitted values: B1, WQP, and B3
SDWIS/FED Reporting Milestones

DONE Milestone

- “UNDONE” must be reported (Modify DONE milestone with END Date)
- Report only most Recent DONE status
- Reason Codes not required
- SDWIS/FED & DTFWriter change
SDWIS/FED Reporting Milestones

SDWIS/FED Implementation

• Conversion of PB90 and CU90 to samples
• Rejection of discontinued milestones
• Requesting DEEM milestones be reported by February 15, 2001 (req’d bby Jan. 11, 2002)
• Continued tracking of discrete Milestones by State
• Missed milestones reported as violations
## SDWIS/FED Reporting Milestones

### SDWIS/FED Milestone Record Format

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Type</th>
<th>Length</th>
<th>Format/Comment</th>
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* Milestone Value no longer valid for LCRMR violations as of January 2000
SDWIS/FED Reporting
Milestones

DTF Transaction Form

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<td>Exceeded Copper August 2001</td>
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</tr>
</tbody>
</table>
SDWIS/FED Reporting
Summary

SDWIS/FED Reporting and Implementation
Summary
SDWIS/FED Reporting
Summary

Sample Records

**PB90 - Lead 90th percentile levels**

All for Large and Medium
ONLY exceedances required for Small

**CU90 - Copper 90th percentile levels**

Exceedances only for ALL systems sizes
SDWIS/FED Reporting Summary

SDWIS/FED LCRMR Sample Implementation

- Copper milestones converted to samples
- Lead samples generated when lead milestone existed without matching sample
- Copper and lead milestone data archived
- Will accept data under LCR reporting requirements until January 11, 2002
- After January 12, 2002 will reject
# SDWIS/FED Reporting Summary

## Pb/Cu Sample Record

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Number</th>
<th>Name</th>
<th>Type</th>
<th>Length</th>
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</tr>
</tbody>
</table>
SDWIS/FED Reporting

Summary

General Violation Information

- 15 pre-LCRMR Violations
- 10 post-LCRMR Violations
- No new Violations under LCRMR
- Five Violations previously reported as discrete Violations have been consolidated for reporting with other Violations
SDWIS/FED Reporting
Summary

**Typical Noncompliance Portrayal**

Noncompliance traditionally has been portrayed by a Compliance Period … Begin Date and End Date (or Begin Date and Duration in months) of the monitoring period in effect
SDWIS/FED Reporting

Summary

NEW Violation Noncompliance

• Begins when the monitoring event or requirement due date is missed, with the exception of WQP non-compliance and WQP M/R violations

• Ends when the monitoring requirements have been fulfilled or requirement has been completed (RTC reported to SDWIS)

• Portrayed as the actual time it took the system to complete the event or fulfill the requirement past the due date
SDWIS/FED Reporting Summary

NEW Violation Non-compliance

- Compliance Period End Date (or Duration) should not be specified when these Violations initially reported to SDWIS/FED
- SDWIS/FED defaults end date of 12/31/2015
- RTC Enforcement Action date replaces defaulted 12/31/2015 date
- Intentional No-Action would also replace defaulted 12/31/2015 date
SDWIS/FED Reporting

Intentional No-Action

Applies to the following violations after a system is no longer subject to the requirement for which it has incurred the violation

- CCT recommendation or study violation (57)*
- OCCT demonstration/installation (58)*
- OWQP noncompliance (59)*
- Source water M/R (56)
- MPL noncompliance (63)
- LSLR (64)

*Applies to systems serving \( \leq 50,000 \) only
## SDWIS/FED Reporting Summary

### SDWIS/FED Violation Record Layout

<table>
<thead>
<tr>
<th>DATA ELEMENT</th>
<th>Type</th>
<th>Length</th>
<th>Format/Comment</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>C101  PWS ID</td>
<td>A/N</td>
<td>9</td>
<td>SSxxxxxxx</td>
</tr>
<tr>
<td>C1101 Violation ID</td>
<td>A/N</td>
<td>7</td>
<td>FFxnnnnn</td>
</tr>
<tr>
<td>C1103 Contaminant Code</td>
<td>Number</td>
<td>4</td>
<td>1022, 1030, or 5000</td>
</tr>
<tr>
<td>C1105 Violation Type Code</td>
<td>Number</td>
<td>2</td>
<td>51-53, 56-59, 62-65</td>
</tr>
<tr>
<td>C1107 Compliance Period Begin</td>
<td>Date</td>
<td>8</td>
<td>YYYYMMDD</td>
</tr>
<tr>
<td>C1109 Compliance Period End, or</td>
<td>Date</td>
<td>8</td>
<td>YYYYMMDD</td>
</tr>
<tr>
<td>C1111 Compliance Period Duration</td>
<td>Number</td>
<td>3</td>
<td># of months</td>
</tr>
</tbody>
</table>
SDWIS/FED Reporting
Summary

Four Monitoring and Reporting Violations

• 51 - Initial Tap Lead and Copper

• 52 - Follow-up / Routine Lead and Copper

• 53 - Water Quality Parameter (WQP)

• 56 - Source Water
SDWIS/FED Reporting Summary

Initial, Follow-up/ Routine Tap M/R

- Contaminant Code “5000”
- Violation Type Codes “51” and “52”
- New criteria = 60 day notification to State of change in source or treatment (type 52)
- Compliance Portrayal Changed
- RTC May require 2 consecutive 6-month rounds
- SNC condition for Initial (revised definition)
SDWIS/FED Reporting

Summary

Initial Tap (51) Violation qualifies for SNC when the system fails to complete Initial Tap Monitoring which requires 2 consecutive 6-month sample sets (unless the system exceeds the lead or copper action level).
SDWIS/FED Reporting

Summary

Initial Tap Follow-up & Routine M/R Implementation

• Converted compliance period end date to 12/31/2015

• Will convert follow-up and routine end dates to 12/31/2015 in Sept 2000 (estimated)

• Only 1 violation reported when 2 consecutive 6-month monitoring periods required
SDWIS/FED Reporting Summary

SDWIS/FED LCRMR WQP Implementation

- Converted Pre-Existing WQP M/R Violations to 53 (violation types 54 and 55 to type 53)
- Converted Pre-Existing WQP TT Violations to 59 (tap violation type 60 to type 59)
- Pre-existing WQP Violation begin dates unchanged
- Standard compliance period
- No SNC conditions
SDWIS/FED Reporting

Summary

LCR WQP Non-Compliance

- A single entry point WQP Noncompliance Violation must be reported for any system in which the WQP values of any sample collected during the quarter are below the minimum value or outside the range established by the State per §141.82(g)

- Tap WQP non-compliance periods are 6, 12, or 36 months
SDWIS/FED Reporting
Violations

LCRMR WQP Non-Compliance (TT)

• LCRMR established fixed 6-month periods

• Compliance determinations are always based on a 6-month period, regardless of the system's monitoring schedule (e.g., daily, biweekly, semi-annually, annually, triennially) or whether the WQP results are from an entry point or tap samples

• ANY combination is a single violation
SDWIS/FED Reporting

Summary

Six LCR Treatment Technique Violations

- OCCT/SOWT Study/Recommendation (57)
- OCCT/SOWT Installation/Demonstration (58)
- Entry Point/Tap WQP Noncompliance (59)
- MPL Noncompliance (63)
- Lead Service Line Replacement (64)
- Public Education (65)
SDWIS/FED Reporting
Summary

OCCT Treatment Technique Violations

No violation code changes to:
- OCCT study/recommendation (57 violation code)
- OCCT Installation/Demonstration (58 violation code)

Consolidated OCCT/SOWT Installation and/or Demonstration into one SNC

Converted violation end date to 12/31/2015
SDWIS/FED Reporting
Summary

Treatment Study/Recommendation (OCCT)

• Large systems are only subject to Study violation

• Medium and small subject to both Recommendation and Study violation
SDWIS/FED Reporting
Summary

Public Education Implementation

65 - Violation code has not changed
SNC definition has not been revised
  system with violation and lead 90th percentile ≥ 0.030 mg/L
Converted violation end date to 12/31/2015
Public Education

- ONE Public Education (PE) Violation must be reported for EACH discrete PE compliance period requirement (i.e., 60 day, semi-annual, and annual)
- PWS could incur 3 separate violations in first 14 months after exceedance
- 10-day period to report to State is not included
SDWIS/FED Reporting
Summary

Source Water Monitoring & MPL Non-Compliance

• No change to violation type code for:
  - Source water M/R violations (56 violation type)
  - MPL noncompliance (63 violation type)

• Converted SOWT Recommendation violations to type 57

• Converted SOWT Installation violations to type 58

• Consolidated OCCT/SOWT Installation and/or Demonstration SNC
SDWIS/FED Reporting

Summary

**Source Water M/R & MPL Noncompliance**

Converted the end dates to 12/31/2015

Source water follow-up monitoring requires two consecutive, 6-month rounds - only 1 M/R violation is reported.

Monitoring is conducted AFTER the lead or copper action level exceedance (No Grandfathering)
SDWIS/FED Reporting
Summary

MPL Noncompliance

A system may incur separate Violations for exceeding the Lead MPL and the Copper MPL.

Only ONE MPL Noncompliance Violation must be reported for a single contaminant regardless of how many entry points are in violation.

Contaminant code is:

1022 = Copper
1030 = Lead

reported in lieu of 5000 code that is used for all other LCR or LCRMR violations.
Lead Service Line Replacement

• 64 Violation Type Code
  Includes violation of partial LSLR requirements
  Failure to complete annual designated replacement rate

• Converted pre-existing end dates to 12/31/2015
• Default violation end dates until 1/11/2002
• No SNC conditions
Data Transfer Format (DTF)

- DTF transactions are 80 characters long
- DTF is the only way to get data into SDWIS/FED, Except for SETS (restricted to EPA)
- Single DTF transaction is required for each piece of data to be inserted, modified, or deleted, Except for Enforcement Linking
## Data Transfer Format (DTF)

### DTF Transaction Format

<table>
<thead>
<tr>
<th>Form ID</th>
<th>Data Qualifiers</th>
<th>Action Code</th>
<th>Data Element Number</th>
<th>Data Element Value</th>
<th>N/A</th>
<th>Batch Seq. Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>3-11 12-18 19-25</td>
<td>26</td>
<td>27-31</td>
<td>32 - 71</td>
<td>72-74</td>
<td>75 - 80</td>
</tr>
</tbody>
</table>
# Data Transfer Format (DTF) DTF Transaction Format

<table>
<thead>
<tr>
<th>Form ID</th>
<th>Data Qualifiers</th>
<th>Action Code</th>
<th>Data Element Number</th>
<th>Data Element Value</th>
<th>N/A</th>
<th>Batch Seq. Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>3-11</td>
<td>12-18</td>
<td>19-25</td>
<td>26</td>
<td>27-31</td>
<td>32 - 71</td>
</tr>
</tbody>
</table>
Data Transfer Format (DTF)
DTF Content - Form ID Illustrated

A2 NH0199050 I C0117 25 990224
A2 NH0199050 I C0147 0000010 990224
A2 NH0199050 I C0163 4 990224
A2 NH0199050 I C0165 B 990224
A2 NH0199050 I C0159 0101 990224
A2 NH0199050 I C0161 1231 990224
B1 NH0199050 001 I C0403 BRW 1, 85' WEST OF BLDG 990224

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
## Data Transfer Format (DTF)

### DTF Content - Form IDs and Data Qualifiers

<table>
<thead>
<tr>
<th>FORM ID</th>
<th>FORM NAME</th>
<th>Record</th>
<th>QUAL 1</th>
<th>QUAL 2</th>
<th>QUAL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>System Address Data</td>
<td>100</td>
<td>PWS-ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>PWS Characteristics Data</td>
<td>100</td>
<td>PWS-ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>Other Address Data</td>
<td>300</td>
<td>PWS-ID</td>
<td>ADDRESS-ID</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>Source/Entity Data</td>
<td>400</td>
<td>PWS-ID</td>
<td>SE-ID</td>
<td></td>
</tr>
<tr>
<td>B1(2)</td>
<td>Location Data</td>
<td></td>
<td>PWS-ID</td>
<td>SE-ID</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>Treatment Data</td>
<td>480</td>
<td>PWS-ID</td>
<td>SE-ID</td>
<td>TREATMENT-ID</td>
</tr>
<tr>
<td>B3</td>
<td>Facility Flow Data</td>
<td>A5000</td>
<td>PWS-ID</td>
<td>SE-ID</td>
<td></td>
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<tr>
<td>B4</td>
<td>Treatment Plant Address Data</td>
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<td>PWS-ID</td>
<td>SE-ID</td>
<td></td>
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### Data Transfer Format (DTF)

**DTF Content - Data Qualifiers Illustrated**

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>NH0199050</td>
<td>I C0159 0101</td>
<td>990224</td>
</tr>
<tr>
<td>A2</td>
<td>NH0199050</td>
<td>I C0161 1231</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 001</td>
<td>I C0403 BRW 1, 85' WEST OF BLDG</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 001</td>
<td>I C0405 S</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 001</td>
<td>I C0407 G</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 001</td>
<td>I C0409 P</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 001 01</td>
<td>I C0483 D</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 001 01</td>
<td>I C0485 423</td>
<td>990224</td>
</tr>
</tbody>
</table>

**NOTE:** Blank spaces have been inserted between DTF Components above for clarity.
# Data Transfer Format (DTF)

## DTF Content - Data Qualifiers Illustrated

<table>
<thead>
<tr>
<th></th>
<th>NH0199050 G01</th>
<th>G1</th>
<th>C0403 BRW 1, 85' WEST OF BLDG</th>
<th>990224</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>NH0199050 G01</td>
<td></td>
<td>I C0405 S</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 G01</td>
<td></td>
<td>I C0407 G</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>NH0199050 G01</td>
<td></td>
<td>I C0409 P</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 G01</td>
<td>G1</td>
<td>I C0483 D</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 G01</td>
<td>G1</td>
<td>I C0485 423</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 G01</td>
<td>G2</td>
<td>I C0483 P</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>NH0199050 G01</td>
<td>G2</td>
<td>I C0485 344</td>
<td>990224</td>
</tr>
</tbody>
</table>

**NOTE:** Blank spaces have been inserted between DTF Components above for clarity.
## Data Transfer Format (DTF)

### DTF Content – Action Code Illustrated

<table>
<thead>
<tr>
<th>Component</th>
<th>Action Code</th>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2 NH0199050</td>
<td>M</td>
<td>C0117 25</td>
<td>990224</td>
</tr>
<tr>
<td>B1 NH0199050 001</td>
<td>D</td>
<td>C0300</td>
<td>990224</td>
</tr>
<tr>
<td>B2 NH0199050 002 01</td>
<td>I</td>
<td>C0483 D</td>
<td>990224</td>
</tr>
<tr>
<td>B2 NH0199050 002 01</td>
<td>I</td>
<td>C0485 423</td>
<td>990224</td>
</tr>
</tbody>
</table>

**NOTE:** Blank spaces have been inserted between DTF Components above for clarity.
Data Transfer Format (DTF)

DTF Content – Data Element Number

Record Numbers

Used in DTF ONLY to identify entire records in SDWIS/FED to be deleted in a Traditional update.

Valid record numbers are shown on the Record Deletion Form.
Data Transfer Format (DTF)

DTF Content – Data Element Number

Record Numbers Illustrated

<table>
<thead>
<tr>
<th>Record</th>
<th>NH0199050</th>
<th>Data Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3</td>
<td>1</td>
<td>D C0300</td>
<td>990224</td>
</tr>
<tr>
<td>B1</td>
<td>001</td>
<td>D C0400</td>
<td>990224</td>
</tr>
<tr>
<td>B2</td>
<td>001 01</td>
<td>D C0480</td>
<td>990224</td>
</tr>
<tr>
<td>B3</td>
<td>001</td>
<td>D A5000</td>
<td>990224</td>
</tr>
<tr>
<td>B4</td>
<td>001</td>
<td>D C0350</td>
<td>990224</td>
</tr>
<tr>
<td>C1</td>
<td>00001</td>
<td>D C0500</td>
<td>990224</td>
</tr>
<tr>
<td>C2</td>
<td>00001</td>
<td>D C0600</td>
<td>990224</td>
</tr>
<tr>
<td>C3</td>
<td>00001</td>
<td>D C0700</td>
<td>990224</td>
</tr>
<tr>
<td>C4</td>
<td>0001</td>
<td>D C0800</td>
<td>990224</td>
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<tr>
<td>D1</td>
<td>9900001</td>
<td>D C1100</td>
<td>990224</td>
</tr>
<tr>
<td>E1</td>
<td>9900001</td>
<td>D C1200</td>
<td>990224</td>
</tr>
<tr>
<td>F1</td>
<td>9900001</td>
<td>D C3000</td>
<td>990224</td>
</tr>
<tr>
<td>F2</td>
<td>9900001 01</td>
<td>D C3100</td>
<td>990224</td>
</tr>
<tr>
<td>H1</td>
<td>00001</td>
<td>D C2100</td>
<td>990224</td>
</tr>
</tbody>
</table>

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
Data Transfer Format (DTF)

Deletion of a Single Attribute

- Attribute level deletion allowed for “optional” data
- Data Entry Instructions provides attribute deletion indicator

Example: Deletion of the milestone comment attribute

C4 LQ1234567 00045 M C813 $ 000025
Data Transfer Format (DTF)

DTF Content – Batch Sequence Number

- Used to sequence update events in traditional updates only ... not used in total replace updates
- Lowest number processed first
- Alpha/numeric format
## Data Transfer Format (DTF)

**DTF Content – Batch Sequence Number**

**Enforcement Won’t be Linked to Violation - Why?**

<table>
<thead>
<tr>
<th>Component</th>
<th>Sequence</th>
<th>Batch</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 CT0099233 9900147</td>
<td>I C1103 1025</td>
<td></td>
<td>990224</td>
</tr>
<tr>
<td>D1 CT0099233 9900147</td>
<td>I C1105 03</td>
<td></td>
<td>990224</td>
</tr>
<tr>
<td>D1 CT0099233 9900147</td>
<td>I C1107 19980701</td>
<td></td>
<td>990224</td>
</tr>
<tr>
<td>D1 CT0099233 9900147</td>
<td>I C1111 001</td>
<td></td>
<td>990224</td>
</tr>
<tr>
<td>E1 CT0099233 9900144</td>
<td>I C1203 19990111</td>
<td></td>
<td>990223</td>
</tr>
<tr>
<td>E1 CT0099233 9900144</td>
<td>I C1205 SIF</td>
<td></td>
<td>990223</td>
</tr>
<tr>
<td>E1 CT0099233 9900144</td>
<td>I Y5000 9900147</td>
<td></td>
<td>990223</td>
</tr>
</tbody>
</table>

**NOTE:** Blank spaces have been inserted between DTF Components above for clarity.
Data Transfer Format (DTF)

Review

DTF Transaction Format

DTF Content

Questions?
SDWIS/FED Reporting
Enforcements

Enforcement/Follow-Up Actions (RTC) and Enforcement Linking
SDWIS/FED Reporting

Enforcements

 Enforcement/RTC

- Formal Enforcement Follow-up actions are Required Reporting
- Enforcement/follow-up action must be linked to the violation
- Compliance Period/Violation Period End Date is replaced by the RTC action date; therefore, RTC must be reported
SDWIS/FED Reporting Enforcements

MUST be reported for ALL Enforcement Actions

- PWS ID (C101 – Data Qualifier #1)
- Enforcement ID (C1201 – Data Qualifier #2)
- Enforcement Date C1203 - Date Action taken
- Follow-up Action Code C1205 - See Notes
- Enforcement Comment C1215 - Optional
SDWIS/FED Reporting
Enforcements

Enforcement Record Data

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Type</th>
<th>Length</th>
<th>Format/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>C101 PWS ID</td>
<td>A/N</td>
<td>9</td>
<td>SSxxxxxxxxx</td>
</tr>
<tr>
<td>C1201 Enforcement ID</td>
<td>A/N</td>
<td>7</td>
<td>FFxnnnnn</td>
</tr>
<tr>
<td>C1203 Enforcement Date</td>
<td>Date</td>
<td>8</td>
<td>YYYYMMDD</td>
</tr>
<tr>
<td>C1205 Follow-up Action Code</td>
<td>A/N</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>C1215 Enforcement Comment</td>
<td>A/N</td>
<td>40</td>
<td>Optional</td>
</tr>
</tbody>
</table>

And the appropriate Link data. Note: not all link methods are appropriate for all violation conditions or for all enforcement actions.
SDWIS/FED Reporting Enforcements

Links to Violations

- Formal Enforcement Actions should be linked to the appropriate violation(s)
- RTC and Intentional No Action are “Formal”
- Unlinked Enforcements are “Orphans”
- 4 Methods to Link Enforcements to Violation(s)
SDWIS/FED Reporting
Enforcements

Link Methods

• X5000 - Associated Violation Range
• Y5000 - Associated Violation IDs
• Z5000 - Associated Violation Contaminant Groups
• J5000 - Associated J5000 Group
SDWIS/FED Reporting

Enforcements

X5000 - Associated Violation Range

• Enforcement is linked to Violation(s) between specified date range

• Maximum of one Associated Violation Date Range in the Data Element Value

• Links to violations matching **begin** or **end** dates

• Links to ALL violations of ALL Rules (CAUTION)

• Failed Link - posts Enforcement - rejects Link
SDWIS/FED Reporting
Enforcements

X5000 - Associated Violation Range Illustration

E1 CT0099233 9900144 I C1203 19990511 990224
E1 CT0099233 9900144 I C1205 SIF 990224
E1 CT0099233 9900144 I X5000 1999030119990331 990224
or
E1 CT0099233 9900144 I X5000 1999010119990331 990224

First example links to violations in one month:
3/1/1999 to 3/31/1999

Second example links violations in one quarter:
1/1/1999 to 3/31/1999

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
SDWIS/FED Reporting

Enforcements

Y5000 - Associated Violation IDs

• Enforcement is linked to specific Violation(s) by Violation ID

• Maximum of four Associated Violation IDs in the Data Element Value

• Failed link - posts Enforcement - rejects Link
SDWIS/FED Reporting
Enforcements

Y5000 - Associated Violation IDs Illustrated
(Proper Use of Y5000)

E1 CT0099233 9900144   I C1203 19990111 990224
E1 CT0099233 9900144   I C1205 SIF 990224
E1 CT0099233 9900144   I Y5000 9900047 990224
E1 CT0099233 9900144   I Y5000 9900048 990224
E1 CT0099233 9900144   I Y5000 9900049 990224

Allows 3 transaction rows - one violation link on each row, OR

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
SDWIS/FED Reporting
Enforcements

Y5000 - Associated Violation IDs Illustrated
(Proper Use of Y5000)

E1 CT0099233 9900144 I C1203 19990111 990224
E1 CT0099233 9900144 I C1205 SIF 990224
E1 CT0099233 9900144 I Y5000 9900047 9900048 9900049 990224

3 violation ID s on One transaction row

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
SDWIS/FED Reporting
Enforcements

Y5000 - Associated Violation IDs Illustrated
(Improper Use of Y5000)

E1 CT0099233 9900144  I C1203 19990111  990224
E1 CT0099233 9900144  I C1205 SIF       990224
E1 CT0099233 9900144  I Y5000 9900047    990224
E1 CT0099233 9900145  I C1203 19990111    990224
E1 CT0099233 9900145  I C1205 SIF       990224
E1 CT0099233 9900145  I Y5000 9900048    990224
E1 CT0099233 9900146  I C1203 19990111    990224
E1 CT0099233 9900146  I C1205 SIF       990224
E1 CT0099233 9900146  I Y5000 9900049    990224

Results in “Duplicate” Enforcements when in fact only one Enforcement exists - SDWIS/FED will post these link transactions using only the FIRST enforcement record ID
SDWIS/FED Reporting Enforcements

Z5000 - Associated Violation Contaminant Groups

• Link requires exact match of:
  - Violation Type
  - Contaminant, and
  - Violation Compliance Period Begin Date

• Maximum of two Associated Violation Contaminant Groups in the Data Element Value

• Failed Link - posts Enforcement - rejects Link
SDWIS/FED Reporting
Enforcements

Z5000 - Associated Violation Contaminant Groups Illustrated (Proper Use of Z5000)

E1 CT0187031 99G0001  I C1203 19970129  990224
E1 CT0187031 99G0001  I C1205 SFO  990224
E1 CT0187031 99G0001  I Z5000 51500019920101  990224
E1 CT0187031 99G0001  I Z5000 53500019920101  990224

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
Z5000 - Associated Violation Contaminant Groups Illustrated (Proper Use of Z5000)

Links the following 2 violation groups:

- Vio type: 65, Contam: 5000, Vio begin date: 3/1/2002
- Vio type: 53, Contam: 5000, Vio begin date: 7/1/2001

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
SDWIS/FED Reporting
Enforcements

J5000 - Associated J5000 Group

- Link requires exact match of:
  - Violation Type
  - Contaminant or Rule
  - Enforcement Period Begin Date, and
  - Enforceable Compliance Date

- Maximum of one Associated Violation J5000 Group in Data Element Value

- Failed link REJECTS ENFORCEMENT
SDWIS/FED Reporting Enforcements

J5000 - Associated J5000 Group Illustrated

- Enforcement Period begin Date: 1/31/1999
- Enforceable Compliance Date: 7/15/2000
- Rule Code: LCR - Lead and Copper Rule, or contaminant code of 5000

NOTE: Blank spaces have been inserted between DTF Components above for clarity.
SDWIS/FED Reporting
Enforcements

Violation, Enforcement and Z5000 - Associated Violation Contaminant Groups Link Example

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Violation Date</th>
<th>Code</th>
<th>Description</th>
<th>Violation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>CT0187031 0400221</td>
<td>I C1103 5000</td>
<td></td>
<td></td>
<td>040224</td>
</tr>
<tr>
<td>D1</td>
<td>CT0187031 0400221</td>
<td>I C1105 59</td>
<td></td>
<td></td>
<td>040224</td>
</tr>
<tr>
<td>D1</td>
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<td>I C1107 20030701</td>
<td></td>
<td></td>
<td>040224</td>
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<td></td>
<td></td>
<td>040224</td>
</tr>
<tr>
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<td>I C1203 19990129</td>
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</tr>
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<td>I C1205 SFO</td>
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<tr>
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<td>990224</td>
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<tr>
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<td>CT0187031 0400035</td>
<td>I Z5000 59500020030701</td>
<td></td>
<td></td>
<td>040224</td>
</tr>
</tbody>
</table>

Y5000 would look like the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Violation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>CT0187031 0400035</td>
<td>I Y5000 0400221</td>
</tr>
</tbody>
</table>
SDWIS/FED Reporting

General Information

All LCR/LCRMR data is required to be reported to SDWIS/FED within 45 days after the end of the quarter in which the monitoring, violations, milestone determinations, and or enforcement/follow-up actions were completed, issued, made or taken.

Data review and error correction should be completed by the 90th day after the end of the quarter.

The Production database is frozen on or about the 5th day of the 4th month after the end of the quarter and the data is provided to EPA’s ENVIROFACTS web site for public access.
SDWIS/FED Reporting
Information Resources

SDWIS/FED Documentation: EPA Home Page
WWW.EPA.GOV/SAFEWATER/SDWISFED/SDWIS3.htm

- SDWIS/FED User Support: Michelle Stoner  202-260-2798
- SDWIS/FED Production Control/Help Line:  703-292-6121
- SDWIS/FED Technical information:  Fran Haertel 214-665-8090
- LCRMR Implementation and Compliance Determination Questions: Leslie Cronkhite 202-260-0713
- EPA Regional Data Management Coordinators
Lead and Copper NPDWR Requirements

Lead and Copper Tap/Initial WQP Monitoring
Corrosion Control Optimization
Public Education
Source Water Monitoring & Treatment
Replacement of Lead Service Lines
State Reporting and Recordkeeping
Primacy and Implementation
Primacy Revision Application

- State Primacy Revision Checklist
- Text of State Regulation
- Primacy Revision Crosswalk
- State Reporting and Recordkeeping Checklists
- Special Primacy Requirements
- Attorney General’s Statement of Enforceability
EPA and State Implementation Agreement

- After 4/11/00, EPA responsible for enforcing rule until State receives primacy
- States/EPA may agree to co-implement rule
- Unnecessary if State has submitted package and meets requirements for Interim Primacy
Primacy Program Revisions Timetable

Implementation Agreement desirable if State has not adopted rule

Extension Period and Extension Agreement

1/12/00 LCRMR Published

4/11/00 LCRMR provisions effective

1/12/02 Deadline for submitting complete and final revision packages

1/12/04 Deadline for submitting complete and final revision packages with extension agreements
The Primacy Revision Process

1/12/00  6/12/00  1/12/01  4/12/01  10/12/01  1/12/02

0 months  5 months  12 months  15 months  21 months  24 months

EPA Promulgates LCRMR

EPA/State agree to process and tentative schedule for State rule approval

State submits draft request to EPA §142.12(d)(1)

EPA review and tentative determination §142.12(d)(1)(ii) (within 90 days)

State submits complete and final request to EPA §142.12(d)(2)(i)

EPA review and determination §142.12(d)(3) (within 90 days)
Revisions that must be adopted to maintain primacy:

- Are more stringent than the 1991 Rule
- Must be implemented beginning April 11, 2000 by Region or State
- Must be incorporated into State regulations by January 12, 2002 to retain primacy (extension available)
- Include clarifications to original LCR language
Primacy and Implementation

Revisions that Must Be Adopted

- Pb/Cu Tap Monitoring and Reporting
  - Use of representative sites
  - States can specify reduced sampling locations
  - Report change in treatment or new source

- Continued monitoring and/or treatment requirements for systems:
  - with CCT but WQP monitoring not required
  - with treatment in place prior to 12/7/92
  - that qualify as (b)(3) systems
Primacy and Implementation
Revisions that Must Be Adopted

- More timely public education compliance reporting by systems
- Source water monitoring
  - Revisions to source water resampling triggers
  - Compositing by a certified lab
- LSLR requirements
  - Who receives replacement offer clarified
  - All revisions pertaining to partial LSLR
Primacy and Implementation
Cannot Be Implemented Unless State Allows

These revisions:

- Are generally less stringent than 1991 Rule
- Cannot be implemented by systems until and unless incorporated into State regulations
- Are optional inclusions in State regulation
Primacy and Implementation

Cannot Be Implemented Unless State Allows

_changes to sampling pool_
- Use of non-first draw samples

_reduced lead and copper tap monitoring_
- No longer need to request permission
- State may designate alternate period
- Accelerated reduced monitoring
Primacy and Implementation
Cannot Be Implemented Unless State Allows

- Sample Invalidation
- Monitoring waivers
- Reduced holding time for acidified samples
- Reporting changes
  - 90th percentile calculation by State
  - elimination of sampling justifications
  - elimination of sample collection certifications
Primacy and Implementation

Cannot Be Implemented Unless State Allows

- Expanded (b)(3) definition
- Change in OWQP compliance procedure
- Representative entry point WQP monitoring for ground water systems
- Accelerated reduced WQP tap monitoring
Primacy and Implementation

Cannot Be Implemented Unless Adopted

✍ All public education revisions except more timely system reporting & need for resubmitting distribution list
✍ Reduced source water monitoring for systems without MPLs
✍ Labs not required to meet Copper MDL
Special Primacy Conditions

LCRMR add 3 new special primacy conditions:

- Use of alternate OWQP formula for multiple samples
- Verification of partial LSLR activities
- Designation of alternative reduced tap monitoring periods for CWSs
Outreach Materials

 Guidance Documents
  - State Implementation Guide
  - OWQP compliance
  - Summary of Revisions
  - Monitoring waivers
  - Partial LSLR

 Fact Sheets
Outreach Materials
SDWIS/FED

- LCRMR Reporting Guidance - DRAFT
- SDWIS/FED Data Entry Instructions
- SDWIS/FED Online Data Dictionary (ODD)
- SDWIS/FED Error Code Data Base (ECDB)
- DTFWriter Software, Release 5.2
- DTFWriter User Manual