

Primacy

**A Safe Drinking Water Act Provision
Maintained by Kentucky Division of Water**

**Southern Region Water Quality Conference
October 24, 2005**



The SDWA Enacted 1974

- The Safe Drinking Water Act (SDWA) provides a “**multiple barrier**” approach to drinking water protection.
- One approach gives to states who qualify the ability to safeguard public drinking water – **primacy**.
- Does not include homeowners who use private wells or cisterns.

What is Primacy?

- The SDWA allows EPA to award States **primary enforcement responsibility (primacy)** for public water.
- Primacy is the first-line authority for enforcing the federal requirements.
- KY Division of Water has maintained primacy since 1977.

Primacy Provides Flexibility

- ✓ Primacy provides flexibility to address state specific needs and problems.

Example, bottled water systems, administrative regulation 401 KAR 8:700 effective November 1990.

- Treated the same as a public water system. Must comply with the same requirements as a public water system.
- Must be run by a certified operator.
- Water bottled outside the state is not covered by the administrative regulation, regardless of its source.

Primacy Requirements

- Primacy must be maintained by the state.
 - Adopt and implement state regulations from SDWA Rules.
 - Apply for primacy for each new requirement.
- States are required to draft applications for primacy for program updates and submit them to the US EPA Regional Office.
- States must promulgate regulations at least as stringent as EPA's.

Primacy Requirements

- States must have procedures in place for implementing:
 - Inventory system
 - Public Water System compliance
 - Sanitary surveys
 - State certified laboratory
 - Plan review
 - Enforcement authority

Maintain Regulations

- Adopt new regulations.
- States have up to two years to promulgate regulations after new SDWA rules are finalized in the Federal Register.
- Apply to maintain primacy and implement and enforce regulations under interim primacy.
- Receive primacy for new regulations.

Current Kentucky Regulations

- 401 KAR Chapter 8 – Public Water Supply regulations.
- List of rules and requirements available online at <http://www.water.ky.gov/dw/rules/>.
- Regulations available online through the Legislative Research Commission, <http://www.lrc.state.ky.us/kar/TITLE401.HTM>.

Contaminant Regulations

- Public water systems are required to monitor for about 91 different contaminants.
- Referred to as National Primary Drinking Water Standards or Regulations.
- Legally enforceable standards by limiting the levels (MCLs or Treatment Techniques) of contaminants in drinking water.
- Standards are published under a SDWA rule.

SDWA Rules for Primacy

- Chemical rules
- Surface water treatment rule
- Total Coliform rule
- Lead and copper rule
- Stage 1 D/DBP rule
- Interim enhanced SWTR
- Radionuclides
- Consumer confidence report rule
- Arsenic
- Long term 1 enhanced surface water treatment rule

Chemical Rules

- Regulations cover over 90 drinking water contaminants, most of which are carcinogens
- Generally apply to CWSs and NTNCWSs
- Contaminants cover three types:
 - Volatile organic chemicals
 - Synthetic organic chemicals
 - Inorganic chemicals

Surface Water Treatment Rule

- Applies to systems that use surface water (including GWUDI)
- Establishes treatment techniques for *Giardia*, viruses, Legionella, and turbidity
 - Requires disinfection and usually filtration
- Establishes monitoring requirements for turbidity and disinfectant residual

Total Coliform Rule

- To control microbiological contaminants
- Applies to all PWSs
- Requires systems to sample for coliform in the distribution system
- Presence of coliform can indicate treatment failures or deterioration of the distribution system

Lead and Copper Rule

- Applies to CWSs and NTNCWSs
- Requires monitoring at customers' taps
- If lead or copper levels exceed the action level, systems may need to:
 - Treat source water
 - Add corrosion control
 - Establish a public education program
 - Replace lead service lines

Disinfectant and Disinfection Byproducts

- Applies to CWSs that disinfect and TNCWSs that use chlorine dioxide
- Includes standards for disinfectants and the byproducts of disinfection
- Includes provisions to help prevent the formation of disinfection byproducts

IESWTR

Interim Enhanced Surface Water Treatment Rule

- Most provisions apply to surface water and GWUDI systems serving 10,000+ people
- Strengthens surface water treatment to prevent microbial contamination
 - MCLG of zero for *Cryptosporidium*
 - More stringent turbidity standards
 - Other measures to prevent contamination

Radionuclides

- December 2000 rule replaces 1976 rule
 - Applies to CWSs
 - Sets new standard for uranium
 - Retains existing standards for other radionuclides
 - Increases monitoring to every entry point in distribution system

Arsenic

- 1975 standard replaced in January 2001
- New standard is 10 ppb
- EPA weighed costs and benefits in setting standard

Long Term 1 ESWTR

LT1 Enhanced Surface Water Treatment Rule

- Applies to surface water and GWUDI systems serving less than 10,000 people
- Similar provisions to IESWTR with some allowances for small systems
 - MCLG of zero for *Cryptosporidium*
 - More stringent turbidity standards
 - Other measures to prevent contamination

Inventory

- SDWIS/State – national EPA designed database – and integrates TEMPO
- Implemented November 2004 in Kentucky
- Provides data reliability for PWS compliance
- Provides mandated reports to EPA
- Currently used in 30 states

Laboratory Certification

- Division of Environmental Services (DES) certifies laboratories on an annual basis for chemical analyses.
- The Cabinet contracted to Morehead State University the responsibility for microbiological certification.
- For a list of commercial, certified labs visit <http://www.water.ky.gov/dw/profi/certlabs/>.

Plans Review

- Review engineering plans and specifications on all water system changes updated in TEMPO
- Includes bottled water systems
- Project management of distribution loan projects under the DWSRF and Congressional grant projects
- Environmental reviews for DWSRF loan Congressional grant projects
- Coordination of Sanctions (Waterline and Tap-on)

Preventive Programs

- The most successful efforts to help public water systems achieve compliance is often through preventive efforts
 - Sanitary Surveys
 - Technical Assistance
 - Capacity Development
 - Operator Certification

Sanitary Surveys

- On-site evaluation
 - Source
 - Treatment
 - Distribution system
 - Finished water storage
 - Pumps, pump facilities, and controls
 - Monitoring and reporting and data verification
 - System management and operation
 - Operator compliance with State requirements
- All data is maintained in TEMPO

Technical Assistance

- Area Wide Optimization Program (AWOP) began in 1997.
- In 2001, EPA awarded Kentucky AWOP a Certificate of Recognition for successful development and implementation of a multi-state approach to water treatment plant optimization.
- Most cost-effective, economical program that optimizes or refines performance of a filtration water system to maximize public health protection without major expenditures.

Technical Assistance

- Water systems having the most trouble with their filtration treatment are identified and prioritized in terms of their need for assistance.
- On-site evaluation to identify and target poor performance.
- Water system adopts and implements AWOP performance goals.

Capacity Development

- Water Systems must demonstrate they have the money and expertise to comply with SDWA.
- States must have programs to ensure capacity of new water systems.
 - Financial.
 - Managerial.
 - Technical.

Operator Certification

- EPA establishes minimum standards for State programs and reimburses training expenses for very small systems.
- States determine appropriate experience, education and training requirements and certify operators.
- Administered by the Division of Compliance Assistance, <http://www.dca.ky.gov/>.

Enforcement

- Division of Enforcement (502) 564-2150.
- If test results show a contaminant is above the MCL, a violation can result.
- Violations are to be reported to the public through specified public notification procedures.
- Water systems work towards returning to compliance.
- Failure to return to compliance leads to further enforcement action (fine/penalty).

For More Information

- **State, Kentucky Division of Water:**

<http://www.water.ky.gov/dw/>, (502) 564-3410

- **Federal:** <http://www.epa.gov/safewater/index.html>

- **Safe Drinking Water Hotline,** (800) 426-4791

- **National Environmental Services Center:**

<http://www.nesc.wvu.edu>, (800) 624-8301

