

1 ENERGY AND ENVIRONMENT CABINET

2 Department for Environmental Protection

3 Division of Water

4 (Amendment)

5 401 KAR 8:250. Inorganic and organic chemical and per- and polyfluoroalkyl substances
6 sampling, analytical techniques, maximum contaminant levels, radionuclides, and secondary
7 standards.

8 RELATES TO: KRS 224.10-100, 224.10-110, 40 C.F.R. 141, 142, 143

9 STATUTORY AUTHORITY: KRS 224.10-100(28), 224.10-110(2), 40 C.F.R. 141,
10 142, 143

11 NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100(28) authorizes the
12 cabinet to promulgate administrative regulations consistent with statutes administered by the
13 cabinet. KRS 224.10-110(2) requires the cabinet to enforce administrative regulations
14 promulgated by the secretary for the regulation and control of the purification of water for public
15 and semipublic use. This administrative regulation establishes sampling and analytical
16 requirements for certain inorganic and organic chemicals and sets maximum contaminant levels
17 for those chemicals which, if exceeded, may affect public health. This administrative regulation
18 establishes the requirements for sampling and testing procedures for radionuclides and establishes
19 maximum contaminant levels for safe drinking water. This administrative regulation establishes
20 maximum contaminant levels and requirements for the sampling and testing for contaminants that

do not have a direct impact on the health of consumers but may discourage the utilization of drinking water or discredit the supplier. Provisions for these contaminants are referred to as "secondary standards". This administrative regulation establishes sampling schedules and requires public water systems to modify treatment to comply with maximum levels established by federal regulation. Federal regulations leave monitoring frequency and consequences for exceeding secondary standards to primacy agency discretion.

Section 1. Inorganic and Organic Chemical Sampling, Analytical Techniques, and Maximum Contaminant Levels.

(1) A public water system shall meet the requirements for inorganic chemicals as established in 40 C.F.R. 141.11, 141.23, ~~[141.41,]~~ 141.51, and 141.62.

(2) A community water system and a non-transient non-community water system (NTNCWS) ~~[public water system]~~ shall meet the requirements for organic chemicals as established in 40 C.F.R. 141.24, 141.50, and 141.61.

(3) A community water system shall meet the requirements established in 40 C.F.R. 141.41 for the special monitoring of sodium.

(4) A community water system and a NTNCWS shall meet the requirements established in 40 C.F.R. 141, Subpart Z for the control of per- and polyfluoroalkyl substances.

Section 2. Radionuclides. A community water system shall meet the requirements for radionuclides as established in 40 C.F.R. 141.25, 141.26, 141.27, 141.55, and 141.66.

Section 3. Sampling, Analysis, Reporting, and Treatment for Secondary Contaminants.

(1) A public water system that treats groundwater or surface water shall sample for secondary contaminants as established in 40 C.F.R. 143.1 through 143.4.

(a) An analysis for secondary contaminants shall be performed if a new source of water

supply is proposed to the cabinet for preliminary approval pursuant to 401 KAR 8:100, Section 1.

(b) Excessive amounts of these contaminants or excessive costs for removal of these contaminants shall be grounds for rejection of the proposed source of water.

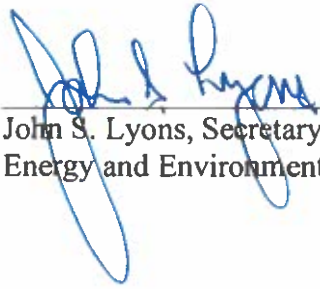
(2) (a) An existing public water system that treats groundwater or surface water shall sample for, analyze, and report the secondary contaminants listed in 40 C.F.R. 143.3 annually, and if consumer complaints indicate the presence of one (1) or more of these contaminants.

(b) Treatment shall be adequate to assure that the secondary contaminant level does not exceed the maximum level limits established in 40 C.F.R. 143.3.

(3) A sample shall be taken from each entry point to the distribution system.

(4) If a secondary maximum contaminant level established in 40 C.F.R. 143.3 is exceeded by a supplier of water, the cabinet may direct that supplier to modify the treatment procedure or to locate a more suitable source of water if the exceeded contaminant level results in a violation of the primary drinking water standards or in consumer complaints.

401 KAR 8:250 Inorganic and organic chemical sampling, analytical techniques, maximum contaminant levels, radionuclides, and secondary standards is approved for filing.

A handwritten signature in blue ink, appearing to read "John S. Lyons", is written over a horizontal line.

John S. Lyons, Secretary
Energy and Environment Cabinet

8/25/24

Date

PUBLIC HEARING AND PUBLIC COMMENT PERIOD:

A public hearing on this administrative regulation shall, if requested, be held on November 23, 2026, at 10:00 a.m. (Eastern Time); 9:00 a.m. (Central Time). The Zoom invitation will be emailed to each requester the week prior to the scheduled hearing. Individuals interested in attending the virtual hearing shall notify this agency in writing by November 16, 2026, five (5) workdays prior to the hearing of their intent to attend. If no notification of intent to attend the hearing is received by that date, the hearing may be cancelled. This hearing is open to the public. Any person who attends virtually will be given the opportunity to comment on the proposed administrative regulation. The virtual public hearing will be recorded, and the recording provided upon a written request to the contact person. Written comments shall be accepted through November 30, 2026. Send written notification of intent to attend the public hearing or written comments on the proposed administrative regulation to the contact person.

The public hearing is accessible to any person with disabilities. Reasonable accommodation, including auxiliary aids and services necessary to participate in the hearing may be made to the contact person at least five (5) working days prior to the hearing.

Contact person: Lisa Jones
Environmental Scientist Consultant II
Division of Water
300 Sower Boulevard
Frankfort, Kentucky 40601
Phone (502) 782-1288
Fax (502) 564-4245
Email: Lisa.C.Jones@ky.gov

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

401 KAR 8:250

Contact Person: Lisa Jones

Phone: (502) 782-1288

Email: Lisa.C.Jones@ky.gov

Subject Headings: *Environment and Conservation, Drinking Water, Water Supply*

(1) Provide a brief summary of:

(a) What this administrative regulation does: This administrative regulation establishes sampling and analytical requirements for inorganic and organic chemicals and sets maximum contaminant levels (MCLs) for those chemicals which, if exceeded, may affect public health. This administrative regulation also establishes the requirements for sampling and testing procedures for radionuclides, establishes MCLs for safe drinking water, and establishes MCLs and requirements for the sampling and testing for contaminants that do not have a direct impact on the health of consumers, but may discourage the utilization of drinking water or discredit the supplier. Provisions for these contaminants are referred to as "secondary standards". This administrative regulation establishes sampling schedules and requires public water systems to modify treatment to comply with maximum levels established by the federal regulation. Federal regulations leave monitoring frequency and consequences for exceeding secondary standards to primacy agency discretion. Finally, this administrative regulation adds federal requirements for the control of per- and polyfluoroalkyl substances (PFAS), and alternate analytical techniques consistent with federal regulations.

(b) The necessity of this administrative regulation: This administrative regulation allows the cabinet to assure the chemical purity of drinking water, controls radionuclides, and establishes requirements for monitoring and analyzing secondary contaminants and control of PFAS, and alternate analytical techniques in public water systems, which are necessary to protect public health. The proposed amendment is required by 42 U.S.C. §300f through §300j-26, in order to maintain Kentucky's primary authority and federal funding to administer its Safe Drinking Water Program.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100(28) and 224.10-110 authorize the cabinet to adopt and enforce administrative regulations for the purification of water for public and semipublic use, and for the construction and operation of water treatment systems and distribution systems. The proposed amendment adds federal requirements for the control of PFAS and the use of alternate analytical techniques consistent with 40 C.F.R. 141.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: Monitoring drinking water for chemical purity is essential to protect public health. Though secondary contaminants may not pose a public health threat, they may make water consumption unpleasant and cause consumers to avoid using the public water system. The

proposed amendment establishes requirements to control PFAS in drinking water and allows public water systems to use alternate analytical techniques under certain conditions.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: The amendment to this administrative regulation adds requirements for the control of PFAS consistent with federal requirements contained in 40 C.F.R. 141, Subpart Z, and allows alternate analytical techniques consistent with federal regulation. Clarifications as to applicability of standards have been made to more accurately reflect different types of public water systems and 40 C.F.R. 141.

(b) The necessity of the amendment to this administrative regulation: The proposed amendment is required by 42 U.S.C. §300f through §300j-26, to maintain Kentucky's primary authority and federal funding to administer its Safe Drinking Water Program. All states with primary authority to implement the federal Safe Drinking Water Act must have compatible state regulations.

(c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 224.10-100(28) and 224.10-110 authorize the cabinet to adopt and enforce administrative regulations for the purification of water for public and semipublic use, and for the construction and operation of water treatment systems and distribution systems.

(d) How the amendment will assist in the effective administration of the statutes: The amendment to this administrative regulation will assist in the effective administration of the statutes by including requirements for the control of PFAS, and alternate analytical techniques, consistent with federal regulations.

(3) Does this administrative regulation or amendment implement legislation from the previous five years? No, this administrative regulation or amendment does not implement Kentucky legislation from the previous five years.

(4) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This amendment to this administrative regulation applies to 207 community and non-transient, non-community public water systems which are often owned by city governments or organized under county governments. Other districts may, in some cases, have a public water system.

(5) Provide an analysis of how the entities identified in question (4) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (4) will have to take to comply with this administrative regulation or amendment: Community and non-transient non-community public water systems will need to comply with 40 C.F.R. 141, Part Z, regarding

the analytical, monitoring, compliance, and reporting and recordkeeping requirements regarding control of PFAS in drinking water. Community and non-transient non-community public water systems must complete initial PFAS monitoring by, and based on those results begin compliance monitoring on, April 26, 2027. Certain systems must comply with public notification requirements in Consumer Confidence Reports and beginning April 26, 2029, must comply with PFAS maximum contaminant levels (MCLs) and take appropriate treatment measures if the MCLs are exceeded.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (4): The cost per public water system will vary widely depending on PFAS levels and whether treatment is required. Most public water systems in Kentucky will only be required to monitor and report PFAS results, with initial and ongoing annual costs ranging from \$0 to \$1,600 per system, based on quarterly, annual, or triennial monitoring frequency. Up to eighteen (18) public water systems (based on current data) may install, operate, and maintain PFAS treatment with expected capital costs ranging from \$2.5 million to \$30 million per system and estimated ongoing annual operation and maintenance costs of \$350,000 to \$2 million per system, based on water treatment plant capacity.

EPA has provided the Division of Water with \$33.331 million through the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant to address emerging contaminants such as PFAS. An additional \$10.9 million may be received in the future. From the \$33.3 million, approximately \$25 million has been allocated to communities in Kentucky to plan for and install PFAS treatment. A small portion of the funding, less than \$200,000, assisting some small communities with initial monitoring requirements for the PFAS Rule. State General Funds were also used.

Drinking Water State Revolving Funds from EPA are also available for emerging contaminants, like PFAS. The funds that have been allocated for PFAS drinking water projects total approximately \$27.8 million from FFY22-25. An additional amount may be allocated for FFY 2026. These funds are for restricted purposes, such as program management, administration and technical assistance.

EC-SDC and DWSRF funding cannot be used for ongoing operation and maintenance expenditures.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (4): The regulated community will have the benefit of consistent federal and state monitoring, analytical, and treatment requirements. The proposed amendment is not more stringent than the federal requirements.

(6) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:

(a) Initially: Since PFAS are not currently regulated, there are no current costs to the agency. Initial implementation of the amendment to this administrative regulation is estimated to cost the agency \$152,687 annually, for the first three years.

(b) On a continuing basis: The amendment to this administrative regulation is expected to

cost the agency \$13,550 per year, after the first three years.

(7) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: Funding for Kentucky's drinking water program is a combination of state general funds and federal funds to administer the Safe Drinking Water Act. The proposed amendment is required by 42 U.S.C. §300f through §300j-26, in order to maintain Kentucky's primary authority and federal funding to administer its Safe Drinking Water Program.

EPA has provided the Division of Water with \$33.331 million through the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant to address emerging contaminants such as PFAS. An additional \$10.9 million may be received in the future. From the \$33.3 million, approximately \$25 million has been allocated to communities in Kentucky to plan for and install PFAS treatment. A small portion of the funding, less than \$200,000, assisting some small communities with initial monitoring requirements for the PFAS Rule. State General Funds were also used.

Drinking Water State Revolving Funds from EPA are also available for emerging contaminants, like PFAS. The funds that have been allocated for PFAS drinking water projects total approximately \$27.8 million from FFY22-25. An additional amount may be allocated for FFY 2026. These funds are for restricted purposes, such as program management, administration and technical assistance.

EC-SDC and DWSRF funding cannot be used for ongoing operation and maintenance expenditures.

(8) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: An increase in fees or funding will not be necessary to implement this amendment.

(9) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees: This administrative regulation does not establish any fees, or directly or indirectly increase any fees.

(10) TIERING: Is tiering applied? (Explain why or why not) Yes. This regulation only applies to community and non-transient non-community public water systems. Initial monitoring requirements differ based on the type and size of system.

FISCAL IMPACT STATEMENT

401 KAR 8:250

Contact Person: Lisa Jones

Phone: (502) 782-1288

Email: Lisa.C.Jones@ky.gov

(1) Identify each state statute, federal statute, or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 224.10-100(28), 224.10-110(2), 40 C.F.R. 141, 142, 143

(2) Identify the promulgating agency and any other affected state units, parts, or divisions (i.e., are there any other state agencies affected by these regulations?): The Division of Water (Division) is the promulgating agency.

(a) Estimate the following for the first year:

Expenditures: Since PFAS are not currently regulated, there is no current cost to the agency. The amendment to this administrative regulation is expected to cost the agency approximately \$152,687, per year for the first three years of implementation.

EPA has provided the Division with \$33.331 million through the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant to address emerging contaminants such as PFAS. An additional \$10.9 million may be received in the future. From the \$33.3 million, approximately \$25 million has been allocated to communities in Kentucky to plan for and install PFAS treatment. A small portion of the funding, less than \$200,000, assisting some small communities with initial monitoring requirements for the PFAS Rule. State General Funds were also used.

Drinking Water State Revolving Funds from EPA are also available for emerging contaminants, like PFAS. The funds that have been allocated for PFAS drinking water projects total approximately \$27.8 million from FFY22-25. An additional amount may be allocated for FFY 2026. These funds are for restricted purposes, such as program management, administration and technical assistance.

Revenues: The amendment to this administrative regulation will not generate revenue.

Cost Savings: The amendment to this administrative regulation is not expected to affect cost savings.

(b) How will expenditures, revenues, or cost savings differ in subsequent years? The cost of this amendment to this administrative regulation will decrease to about \$13,550 per year after the first three years. The amendment to this administrative regulation is not expected to affect revenues or cost savings.

(3) Identify affected local entities (for example: cities, counties, fire departments, school districts): This administrative regulation applies in part to 207 community and non-transient, non-community public water systems which are often owned by city governments or organized under county governments. Other districts may, in some cases, have a public water system.

(a) Estimate the following for the first year:

Expenditures: The first-year cost per public water system will vary widely depending on PFAS levels and whether treatment is required. Most public water systems in Kentucky will only be required to monitor and report PFAS results, with first-year costs ranging from \$0 to \$1,600 per system, based on quarterly, annual, or triennial monitoring frequency, for the first three years of implementation. Up to eighteen (18) public water systems (based on current data) may install PFAS treatment, with expected capital costs ranging from \$2.5 million to \$30 million per system.

EPA has provided the Division of Water with \$33.331 million through the Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant to address emerging contaminants such as PFAS. An additional \$10.9 million may be received in the future. From the \$33.3 million, approximately \$25 million has been allocated to communities in Kentucky to plan for and install PFAS treatment. A small portion of the funding, less than \$200,000, assisting some small communities with initial monitoring requirements for the PFAS Rule. State General Funds were also used.

Drinking Water State Revolving Funds from EPA are also available for emerging contaminants, like PFAS. The funds that have been allocated for PFAS drinking water projects total approximately \$27.8 million from FFY22-25. An additional amount may be allocated for FFY 2026. These funds are for restricted purposes, such as program management, administration and technical assistance.

Revenues: The amendment to this administrative regulation will not generate revenue.

Cost Savings: The amendment to this administrative regulation and implementation of this program does not have any direct cost savings to the cabinet or regulated entities. Nationwide potential public health cost savings cited by EPA are estimated at \$1543 million, using a 2% discount rate, for the final rulemaking.

(b) How will expenditures, revenues, or cost savings differ in subsequent years?

Expenditures in subsequent years will depend on PFAS levels and whether treatment is needed. Most public water systems in Kentucky will only need to monitor and report PFAS results, with costs in subsequent years remaining the same as the first year, which is estimated to be \$0-\$1600 per system, based on quarterly, annual, or triennial monitoring frequency. Up to eighteen (18) public water systems (based on current data) may need to operate and maintain PFAS treatment, with estimated ongoing annual operation and maintenance costs in subsequent years ranging from \$350,000 to \$2 million per system, based on water treatment plant capacity.

Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) grant and Drinking Water State Revolving Funds (DWSRF) funding from EPA cannot be used for ongoing operation and maintenance expenditures.

(4) Identify additional regulated entities not listed in questions (2) or (3): There are no additional regulated entities.

(a) Estimate the following for the first year:

Expenditures: N/A

Revenues: N/A

Cost Savings: N/A

(b) How will expenditures, revenues, or cost savings differ in subsequent years? N/A

(5) Provide a narrative to explain the:

(a) Fiscal impact of this administrative regulation: The amendment to this administrative regulation is expected to cost the agency approximately \$152,687 annually for the first three years, and approximately \$13,550 in subsequent years. The amendment will not generate revenue or affect cost savings. The cost for regulated entities of the amendment to this administrative regulation will vary widely depending on PFAS levels at each public water system and whether treatment is required. In the first year, costs for public water systems that are only required to monitor and report PFAS results are expected to range from \$0 to \$1,600 per system, based on quarterly, annual, or triennial monitoring frequency, while systems required to install PFAS treatment are expected to incur capital expenditures ranging from \$2.5 million to \$30 million per system, based on water treatment plant capacity. In subsequent years, costs are not expected to change for systems that only monitor and report PFAS results, while ongoing annual operation and maintenance costs for systems with PFAS treatment are estimated to range from \$350,000 to \$2 million per system.

(b) Methodology and resources used to determine the fiscal impact: Costs to the agency were calculated using EPA estimates, adjusted using Kentucky specific hours, for time needed to review sample results, the average number of results the agency anticipates reviewing, historical agency costs, PFAS data, and expenses associated with conducting sanitary surveys at systems that may need to install PFAS treatment. Costs to regulated entities were calculated using EPA nationwide, aggregated estimates, PFAS data, and actual capital project cost estimates provided by Kentucky public water systems.

The resources used to determine fiscal impact included the: Resources included agency data and EPA estimates found in the Economic Analysis for the Final PFAS NPDWR (EPA-815-R-24-001) (https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea.pdf).

(6) Explain:

(a) Whether this administrative regulation will have an overall negative or adverse major economic impact to the entities identified in questions (2) - (4). (\$500,000 or more, in aggregate) Yes, the amendment to this administrative regulation will have a major economic impact of \$500,000 or more, in the aggregate.

(b) The methodology and resources used to reach this conclusion: Costs to the agency were calculated using EPA estimates, adjusted using Kentucky specific hours, for time needed to review sample results, the average number of results the agency anticipates reviewing, historical agency costs, PFAS data, and expenses associated with conducting sanitary surveys at systems that may need to install PFAS treatment. Costs to regulated entities were calculated using EPA nationwide, aggregated estimates, PFAS data, and actual capital project cost estimates provided by Kentucky public water systems.

The resources used to determine fiscal impact included the: Resources included agency data and EPA estimates found in the Economic Analysis for the Final PFAS NPDWR (EPA-815-R-24-001) (https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea.pdf).

FEDERAL MANDATE ANALYSIS COMPARISON

401 KAR 8:250

Contact Person: Lisa Jones

Phone: (502) 782-1288

Email: Lisa.C.Jones@ky.gov

1. Federal statute or regulation constituting the federal mandate. The Safe Drinking Water Act (42 U.S.C. §300f through §300j-26); 40 C.F.R. 141 and 143.

2. State compliance standards. KRS 224.10-100(28), 224.10-110

3. Minimum or uniform standards contained in the federal mandate. 40 C.F.R. 141 establishes analytical techniques, monitoring requirements, and maximum contaminant levels for organic and inorganic chemicals, identifies required and alternate analytical techniques, monitoring, and maximum contaminant levels for radionuclides, establishes control of PFAS, and requirements for sodium. 40 C.F.R. 143 establishes guidelines for public water systems and states to monitor secondary contaminants.

4. Will this administrative regulation impose stricter requirements, or additional or different responsibilities or requirements than those required by the federal mandate? This administrative regulation does not impose stricter, additional, or different responsibilities or requirements than those required by the federal mandate.

5. Justification for the imposition of the stricter standard, or additional or different responsibilities or requirements. This administrative regulation does not impose stricter, additional, or different responsibilities or requirements than the federal mandate.