

LEAD AND COPPER AND DRINKING WATER REFERENCES AND FORMAT
UPDATES 327 IAC 8 Indiana Department of Environmental Management
LSA Document #24-428

I. Description of Rule

a. History and Background of the Rule – The genesis of this rulemaking by the Indiana Department of Environmental Management (IDEM) is the approval from the United States Environmental Protection Agency (U.S. EPA) to implement drinking water programs in Indiana under the Safe Drinking Water Act (SDWA). This approval is referred to as having primacy. To maintain primacy, IDEM must meet the requirements of U.S. EPA by providing state rules that are as stringent as federal rules. This rulemaking will amend rules at 327 IAC 8 concerning updates to the lead and copper National Primary Drinking Water Regulations at 40 CFR 141, Recommended Standards for Water Works, also known as the Ten States Standards, updates to American Water Works Association (AWWA) standards, updates to the American Society for Testing and Materials (ASTM) standards, and the repeal of 327 IAC 8-2, 327 IAC 8-2.1, 327 IAC 8-2.3, 327 IAC 8-2.4, 327 IAC 8-2.5, 327 IAC 8-2.6, 327 IAC 8-3-8, and 327 IAC 8-3.5-2 for the replacement of existing federal language in the state rule with incorporation by reference of the federal rules for all drinking water standards at 327 IAC 8-2.7 and 327 IAC 8-2.8.

The last major update to this rule was May 7, 2010.

U.S. EPA published a final rule on January 15, 2021 (86 FR 4198), to revise the lead and copper rule at 40 CFR 141 (the Lead and Copper Rule Revisions or LCRR). These revisions require all community water systems to conduct lead-in-drinking-water testing and public education in schools and childcare facilities, as well to provide accelerated lead service line replacements by closing existing regulatory loopholes, propelling early action, and strengthening replacement requirements. On June 16, 2021, U.S. EPA published an update to the Federal Register with the determination to delay the effective date for the LCRR. The update delayed the effective date from January 16, 2024, to October 16, 2024, and provided two years after the federal regulations are updated and promulgated for Indiana to update its state Lead and Copper rules (86 FR 31940).

In accordance with IC 13-14-9-9, IDEM will provide a 30-day written comment period to give regulated entities and other affected and interested parties the opportunity to submit comments or suggestions on the rulemaking.

While IDEM was working on this rulemaking, on October 30, 2024, U.S. EPA published a new final rule called the Lead and Copper Rule Improvements (LCRI) rule. The LCRI made changes to the Lead and Copper Rule and the 2021 LCRR.

The compliance date for the LCRI is November 1, 2027. Originally, IDEM's intent for this rulemaking was to only update IDEM's rules to include the 2021 LCRR, not the LCRI. However, after discussions with regulated entities and U.S. EPA, IDEM is revising the Proposed Rule to be consistent with a provision in the LCRI that addresses what lead and copper requirements apply to community water systems and non-transient non-community water systems between October 30, 2024, and November 1, 2027. During this period, systems will largely be complying with the Lead and Copper Rule and only a select few provisions under the 2021 LCRR. This change is the most substantive in the Revised Proposed Rule. Under the Revised Proposed Rule, systems will now only be complying with certain portions of the LCRR. IDEM will further address the LCRI in a future rulemaking.

U.S. EPA has reviewed IDEM's Revised Proposed Rule, and IDEM is ready to proceed with the rulemaking. Once OMB approves the Revised Proposed Rule and Revised Regulatory Analysis, IDEM will publish the Revised Proposed Rule for a Third Public Comment Period.

IDEM has revised the below Regulatory Analysis, as necessary, to reflect the changes made in the Revised Proposed Rule. Overall, the Revised Proposed Rule has no substantive impact on the cost-benefit analysis for this rulemaking as the changes are largely clarifying/corrections and are consistent with the federal regulations to which drinking water systems are already subject.

b. Scope of the Rule – IDEM is proposing amendments to Indiana's drinking water standards at 327 IAC 8 to repeal repetitive language and update the lead and copper requirements. The incorporation by reference of 40 CFR 141 does not change the standards that are referenced throughout the state rule. Incorporating by reference the federal requirements ensures consistency and will allow for quicker updates when the federal rules change. Currently, Indiana's drinking water standards at 327 IAC 8 contain full text language directly taken from federal requirements.

This rulemaking will also revise the Recommended Standards for Water Works and the AWWA standards to the editions as of December 31, 2023, where references to these standards are incorporated into the affected citations of 327 IAC 8. The Recommended Standards for Water Works are a joint effort by the Water Supply Committee of the Great Lakes – Upper Mississippi River Board (GLUMRB) of State and Provincial Public Health and Environmental Managers. GLUMRB is a voluntary organization of states that was organized to protect public health by the Upper Mississippi River Valley states and Great Lakes states in 1950, about 20 years before the U.S. EPA was created, and, to this day, continues to provide facility design criteria widely recognized by states and the public water supply industry throughout the United States and Canada, as well as around the world. There is no other source that creates these necessary standards

that are accepted nationally. The AWWA is a professional organization for the water and wastewater industry that produces analytical methods for laboratory analysis. Both types of standards also establish, as far as practicable, uniformity of practice. The ability of an individual public water system (PWS), or construction engineer, or manager to produce standards that would be acceptable for producing safe drinking water would require immense financial and time resources.

c. Statement of Need – This rulemaking is needed to provide consistency between state and federal requirements for the changes in federal rules regarding lead and copper. U.S. EPA published a final rule on January 15, 2021 (86 FR 4198), to revise the lead and copper rule at 40 CFR 141. These revisions require all community water systems to conduct lead-in-drinking-water testing and public education in schools and childcare facilities, as well as to provide accelerated lead service line replacements by closing existing regulatory loopholes, propelling early action, and strengthening replacement requirements. On June 16, 2021, U.S. EPA published an update to the Federal Register with the determination to delay the effective date for the Lead and Copper rules from January 16, 2024, to October 16, 2024. This will provide two years after the federal regulations are updated and promulgated for Indiana to update the state Lead and Copper revisions (86 FR 31940).

On October 30, 2024, U.S. EPA published a new final rule called the Lead and Copper Rule Improvements (LCRI) rule. The LCRI made changes to the Lead and Copper Rule and the 2021 LCRR. The compliance date for the LCRI is November 1, 2027. Under the LCRI, until the November 1, 2027, compliance date arrives, community water systems and non-transient non-community water systems must continue to comply with the pre-2021 Lead and Copper Rule and only a few requirements under the LCRR (40 CFR 141.80(a)(4)). IDEM is revising its Proposed Rule to incorporate this provision.

U.S. EPA published an update for Alternative Test Procedures for the Analysis of Contaminants under the SDWA on January 30, 2024 (89 FR 5773). This update will encompass changes made in 40 CFR 141.23(k)(1) to make 93 additional methods available for analyzing drinking water samples, providing interested stakeholders the opportunity to utilize these new measurement techniques and allow for greater flexibility in the selection of analytical methods. This will benefit interested stakeholders by reducing monitoring costs while maintaining public health protection.

This rulemaking also provides revisions to the Recommended Standards for Water Works and the AWWA standards to the 2023 editions where references to these standards are incorporated into the affected citations of 327 IAC 8. The Recommended Standards for Water Works are a joint effort by GLUMRB of State and Provincial Public Health and Environmental Managers. These

standards, consisting of proven technology, are used nationally and serve as a guide in the design and preparation of plans and specifications for the construction of public water systems. There is no other source that creates these necessary standards that are accepted nationally.

d. Statutory Authority for the Proposed Rule – The statutory authority for the rulemaking can be found at IC 4-22-2, IC 13-13-5, IC 13-14-8, IC 13-14-9-9, IC 13-18-3, and IC 13-18-16.

e. Fees, Fines, and Civil Penalties – This rulemaking does not add or increase any fees, fines, or civil penalties and does not establish any requirements to which the regulated sources are not already subject.

II. Fiscal Impact Analysis

a. Anticipated Effective Date of the Rule

This rule will become effective 30 days after filing with the publisher.

b. Estimated Fiscal Impact on State and Local Government – IDEM estimates no fiscal impact on the expenditures and revenues of state agencies and local government. The rulemaking only incorporates existing federal requirements by reference and updates the Recommended Standards for Water Works, ASTM, and AWWA standards that are currently in use to the most recent methods for drinking water construction standards.

c. Sources of Expenditures or Revenues Affected by the Rule – Not Applicable.

III. Impacted Parties

This rulemaking may potentially impact current public water system providers. This rule could affect all active public water systems and the populations those systems serve. Currently, there are 3,921 active systems, which serve a total population of 5,631,338. All public water systems have the potential to be impacted by at least one of the rule's construction standards, but not all of them. Also, this rule will impact engineering firms that design and certify plans for system construction; these firms will need to refer to and ensure compliance with the appropriate standards on their clients' behalf. An estimated 85 firms conduct this type of work in Indiana.

Impacted parties will need to update their AWWA and ASTM standards to maintain consistency with state rules. The AWWA and ASTM standards are provided by IDEM at no cost to impacted parties; however, these standards can also be purchased by impacted parties through their official websites provided in the incorporation by reference paragraphs through the state rule. There is an average associated cost ranging from \$99.00 - \$142.00 per AWWA standard purchased.

IV. Changes in Proposed Rule

327 IAC 8-2, 327 IAC 8-2.1, 327 IAC 8-2.3, 327 IAC 8-2.4, 327 IAC 8-2.5, 327 IAC 8-2.6, and 327 IAC 8-3-8 are being repealed and replaced by the addition of 327 IAC 8-2.7 and 327 IAC 8-2.8 to incorporate by reference 40 CFR 141 for public water systems to refer to for state and federal requirements regarding recent updates to the drinking water standards. IDEM is updating the American Water Works Association standards through 327 IAC 8 to the December 31, 2023, updated standards. Technology changes with the passage of time; therefore, the standards must also evolve. Additionally, new contaminants and compounds arise requiring the standards to be revised to address them. The 2022 edition of the Recommended Standards for Water Works for the design and review of construction plans and operation of PWS facilities and the 2023 edition of the AWWA standards for analytical methods are the most current version of the standards produced by the GLUMRB and is required under 327 IAC 8-3-4 for approval of a PWS construction permit by IDEM's commissioner.

Citation	Summary	Imposed by another source of law?	If so, where?
327 IAC 8-1-3	Updating citations for repealed rules to reflect the federal citation.	No	-
327 IAC 8-2; 327 IAC 8-2.1; 327 IAC 8-2.3; 327 IAC 8-2.4; 327 IAC 8-2.5; 327 IAC 8-2.6; 327 IAC 8-3-8; 327 IAC 8-3.5-2	Sections being repealed to remove federal drinking water standards as full text language.	No	-
327 IAC 8-2.7	Rule being added to incorporate federal drinking water standards by reference in the state rule. Revised Proposed Rule: updated CFR reference to 2024 version; added section addressing Lead and Copper applicability between October 31, 2024 and November 1, 2027; removed inapplicable exception; revised definitions to be consistent with federal definitions; removed definition for unused term.	Yes	40 CFR 141
327 IAC 8-2.8	Sanitary Surveys – changes made to this section include: 1. 327 IAC 8.1-2-3(f)(4)(D)(v) updated to a 24 mesh noncorrodible screen, 2. 327 IAC 8.1-2-3(f)(6)(E)(i) through (f)(6)(E)(iv) citation updates for state citations	Yes	40 CFR 141

	<p>changed to incorporation by reference of 40 CFR 141,</p> <p>3. 327 IAC 8.1-2-3(f)(7)(F) removal of obsolete notification process by way of facsimile.</p> <p>Revised Proposed Rule: added reference to equivalent federal law; corrected federal cross-references.</p>		
327 IAC 8-3-1	<p>Updates to citations that have been repealed by this rulemaking.</p> <p>Revised Proposed Rule: corrected cross-references.</p>	No	-
327 IAC 8-3-2	Simplified and clarified previously confusing language in (e) to allow for phased construction of PWSs and cleaned up old language to provide consistency amongst state rules.	No	-
327 IAC 8-3-4	<p>Updates and incorporates by reference the GLUMBR Recommended Standards for Water Works to 2022 edition, and AWWA standards to 2023 edition. Updated editions are already in use by sources.</p> <p>Revised Proposed Rule: added flexibility to applicable design criteria.</p>	No	-
327 IAC 8-3.1-2	Updates to citations that have been repealed by this rulemaking.	No	-
327 IAC 8-3.2-8	<p>Updates to the current GLUMBR and AWWA standards being incorporated by reference. Made AWWA Standards list consistent in title to the documents being incorporated.</p> <p>Revised Proposed Rule: added reference to equivalent federal law.</p>	No	-
327 IAC 8-3.2-17	Updates to the current AWWA standards being incorporated by reference.	No	-
327 IAC 8-3.2-18	Updates to the current AWWA standards being incorporated by reference.	No	-
327 IAC 8-3.3-3	Updating citations for repealed rules to reflect the federal citation.	No	-
327 IAC 8-3.3-4	Updating citations for repealed rules to reflect the federal citation. Updated	No	-

	outdated language with specific dates for final rule referenced.		
327 IAC 8-3.4-9	Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules. Revised Proposed Rule: added references to equivalent federal law; revised language to be consistent with federal law.	No	-
327 IAC 8-3.4-10	Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.	No	-
327 IAC 8-3.4-23	Updates to the current ASTM and AWWA standards being incorporated by reference.	No	-
327 IAC 8-3.4-24	Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.	No	-
327 IAC 8-3.4-25	Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.	No	-
327 IAC 8-3.5-5	Clean up old language to provide consistency amongst state rules, and updates to the current AWWA standards being incorporated by reference. Rewrote subsection (g) for consistency with state language format and to provide clarity on vague language.	No	-
327 IAC 8-3.6-4	Clean up old language to provide consistency amongst state rules, incorporation by reference for federal drinking water standards, and updates to the current GLUMBR and AWWA standards being incorporated by reference Revised Proposed Rule: added reference to incorporated federal law.	No	-
327 IAC 8-4-2	Updating citations for repealed rules to reflect the federal citation and cleaning	No	-

	<p>up old language to provide consistency amongst state rules.</p> <p>Revised Proposed Rule: added reference to incorporated federal law.</p>		
327 IAC 8-4.1-1	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.</p> <p>Revised Proposed Rule: revised definition for clarity and to be consistent with federal law.</p>	No	-
327 IAC 8-4.1-8	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.</p>	No	-
327 IAC 8-4.1-13	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.</p>	No	-
327 IAC 8-4.1-14	<p>Updating citations for repealed rules to reflect the federal citation.</p> <p>Revised Proposed Rule: corrected cross-reference.</p>	No	-
327 IAC 8-4.1-15	<p>Updating citations for repealed rules to reflect the federal citation.</p>	No	-
327 IAC 8-6-1	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules. Rewrote subsection (a) to provide clarity and simplicity.</p>	No	-
327 IAC 8-10-1	<p>Updating citations for repealed rules to reflect the federal citation.</p> <p>Revised Proposed Rule: added cross-reference.</p>	No	-
327 IAC 8-10-5	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.</p>	No	-
327 IAC 8-11-1	<p>Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules.</p>	No	-

	Revised Proposed Rule: added NTNC PWS system in addition to community PWS.		
327 IAC 8-12-3.5	Updating citations for repealed rules to reflect the federal citation and cleaning up old language to provide consistency amongst state rules. Removed old citations in subsection (h) that had a breakdown of federal requirements in several different rules and updated reference to singular location for federal drinking water requirements now found in new state rule.	No	-

V. Benefit Analysis

a. Estimate of Primary and Direct Benefits of the Rule – The benefit of this rulemaking is maintaining consistency between state and federal regulations so that IDEM may maintain primacy over implementation of the Safe Drinking Water Act in Indiana. The benefit of the updates to the federal lead and copper rule is greater protection of children and adults from exposure to lead in drinking water. In addition, incorporating by reference the federal drinking water regulations will allow for a more streamlined rule and for faster and more efficient updates when the federal rules change. Lastly, updating the AWWA and Recommended Standards for Water Works to their most recent version means the rule will no longer be out of date and will be current and consistent with rules with which PWSs are already complying. There is no impact on consumer protection, worker safety, or business competitiveness.

b. Estimate of Secondary or Indirect Benefits of the Rule - There are no secondary benefits or compliance costs associated with this rulemaking.

c. Estimate of Any Cost Savings to Regulated Industries – This rulemaking updates and incorporates by reference federal drinking water standards and the GLUMBR and AWWA standards that sources are already complying with in practice. The updates to the Lead and Copper rule protect children and adults from lead in drinking water. This rulemaking affords cost savings to sources because they do not have to locate and purchase older standards or modify their compliance processes to be consistent with the outdated versions of these standards in the state rule.

This rule does not add any new fees or requirements for equipment, training, supervisory costs, or any other compliance costs. There are no administrative

expenses associated with this rulemaking, and it does not impose any new expenses for legal, consulting, reporting, accounting, or other purposes.

The Revised Proposed Rule does not materially change the Benefit Analysis. The addition of 327 IAC 8-2.7-1.1 will allow systems to continue complying with the pre-2021 Lead and Copper Rule until November 1, 2027 (the LCRI compliance date) and only select provisions of the LCRR under the Proposed Rule. The revision to 327 IAC 8-3-4 adds flexibility to the design criteria PWSs must comply with, which will benefit regulated entities.

VI. Cost Analysis

a. Estimate of Compliance Costs for Regulated Entities – The portion of this rulemaking that updates and incorporates federal requirements will not impose any compliance costs for regulated entities beyond what they are already required to comply with.

Updating the construction standards to the most current version will impose negligible cost on regulated entities because most, if not all, are already using these standards in practice. Program staff in the Office of Water Quality reached out to Indiana’s American Council of Engineering Companies (ACEC), whose members include 80 engineering firms that work in the discipline of “water/wastewater supply distribution/treatment”, to conduct an informal survey of its members’ use of construction standards. All members that responded confirmed that they use the most current construction standards. Specifically, some firms responded that they follow the current AWWA standards. Some firms responded that they subscribe to the AWWA standards and receive all new updates through that subscription. Other firms responded that they completed comprehensive training exercises with their interns to cross reference their firm’s specifications to ensure that they are using the most current standards. Other firms responded that they reference the latest editions of the standards in their current specifications.

By updating to the most current construction standards, this rule will be current and consistent with what regulated entities are already using.

The Revised Proposed Rule does not materially change the Cost Analysis.

b. Estimate of Administrative Expenses Imposed by the Rules – This rulemaking will not impose any administrative expenses for regulated entities beyond what they are federally required to comply with. For the updates to the state construction standards, IDEM expects the administrative expense to be negligible based on outreach performed by IDEM which confirmed that PWSs/engineering firms are already using the updated standards.

c. The fees, fines, and civil penalties analysis required by IC 4-22-2-19.6 – The rulemaking does not propose to add or increase any fees, fines, or penalties.

d. If the implementation costs of the proposed rule are expected to exceed the threshold set in IC 4-22-2-22.7(c)(6) – Not applicable.

VII. Sources of Information

a. Independent Verifications or Studies - IDEM did not need to rely upon any independent verifications or studies to reach conclusions in this cost-benefit analysis. IDEM already has the information available to complete this cost-benefit analysis.

b. Sources Relied Upon in Determining and Calculating Costs and Benefits

IDEM relied on the institutional knowledge of its drinking water staff and rules staff in the cost-benefit analysis for this rulemaking.

The federal fiscal impact analysis for the Lead and Copper Revisions is published at <https://downloads.regulations.gov/EPA-HQ-OW-2017-0300-1769/content.pdf>.

Finally, a survey was conducted by program staff from the Office of Water Quality to assess whether engineering firms are currently using the most updated version of the construction standards in their specifications. These firms are all members of the ACEC.

VIII. Regulatory Analysis

The benefit of this rulemaking is maintaining consistency between state and federal regulations, maintaining Indiana's primacy over implementation of the Safe Drinking Water Act, allowing for more efficient updates when federal rules change, and updating construction standards to their most current version.

Protecting public health by removing contaminants and making water safe to drink is the primary goal of regulations concerning PWS construction, treatment, and operation. Testing by way of accepted analytical methods is necessary to assure the water produced by a PWS facility is safe for consumption. Any new water treatment infrastructure likely will involve additional costs. If that infrastructure meets federal and state requirements for producing safe drinking water, federal money is likely to be available either directly from the federal government or through the state revolving loan fund, which receives federal money. Because the ultimate design criteria used by public health and environmental protection regulatory agencies is protection of public health, cost, while considered, is a lesser consideration and not specifically included in the GLUMRB's Recommended Standards for Water Works.

This rulemaking to update the GLUMRB's Recommended Standards for Water Works and the AWWA standards to their most current editions in rules of 327 IAC 8 does not add cost specific to treatment of any contaminant but provides the most technically accepted information needed by those involved in protecting public health through safe drinking water. Based on outreach conducted by IDEM, engineering firms are already using the most current version of these construction standards.

There are no additional compliance costs, administrative costs, or fees, fines, or civil penalties associated with this rulemaking. Therefore, the estimated costs of this rulemaking do not exceed the benefits of its implementation for regulated entities.

The Revised Proposed Rule strengthens the purpose of this rulemaking by creating greater consistency between state and federal drinking water regulations, clarifying the applicability of the Lead and Copper requirements, and making other clarifying changes and corrections.

IX. Contact Information of Staff to Answer Substantive Questions

Primary Contact	Krystal Hackney	Khackney1@idem.in.gov
Secondary Contact	Billie Franklin	Bfrankli@idem.in.gov

X. Redline Draft of Proposed Rules

Please provide a link or attachment to the proposed rule that includes a redline of the changes made by the proposed rule from existing regulations, or an alternative form of identifying changes approved in advance by OMB. This draft can include annotations with other sources of requirements as discussed in Section IV above.

XI. Resubmission Information (if applicable)

Pursuant to IC 4-22-2-22.8(f), if an agency revises a proposed rule after the budget agency and the office of management and budget authorize commencement of the public comment periods, the agency must obtain a new notice of determination under subsection (e). The agency shall resubmit to the budget agency and the office of management and budget the revised proposed rule and a revised regulatory analysis with sufficient information for the budget agency and the office of management and budget to determine the impact the revisions have on the regulatory analysis previously reviewed by the budget agency and the office of management and budget. After obtaining a new notice of determination, the agency shall submit to the publisher the new notice of determination, the revised proposed rule, and the revised regulatory analysis.