



Common Sense Initiative

Mike DeWine, Governor
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Business Impact Analysis

Agency, Board, or Commission Name: Ohio Environmental Protection Agency

Rule Contact Name and Contact Information: Amanda Payton, Ohio Environmental Protection Agency

Regulation/Package Title (a general description of the rules' substantive content):

Backflow Prevention and Cross Connection Control

Rule Number(s): 3745-95-01, 3745-95-02, 3745-95-03, 3745-95-04, 3745-95-05, 3745-95-06, 3745-95-07, 3745-95-08, 3745-95-09

Date of Submission for CSI Review: 10/04/2021

Public Comment Period End Date: 11/04/2021

Rule Type/Number of Rules:

New/ 4 rules

No Change/ rules (FYR?)

Amended/ 5 rules (FYR? 5)

Rescinded/ 4 rules (FYR? 4)

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing

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regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Reason for Submission

1. R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.

Which adverse impact(s) to businesses has the agency determined the rule(s) create?

The rule(s):

- a. Requires a license, permit, or any other prior authorization to engage in or operate a line of business.
- b. Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.
- c. Requires specific expenditures or the report of information as a condition of compliance.
- d. Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.

Regulatory Intent

2. Please briefly describe the draft regulation in plain language.

Please include the key provisions of the regulation as well as any proposed amendments.

Ohio EPA's Division of Drinking and Ground Waters (DDAGW) is reviewing and considering revisions of Ohio Administrative Code (OAC) Rules 3745-95-01 through 3745-95-09 of the OAC to satisfy the five-year rule review requirements of section 106.03 of the Ohio Revised Code (ORC). The rules establish regulations for backflow prevention and cross connection control.

DDAGW is proposing that minor amendments be made to OAC 3745-95-01 which contains definitions related to backflow prevention and cross connection control. The proposed changes to 3745-95-01 focus on modifying and adding supporting language to the definitions to clarify the application of these rules to all PWS. Rule 3745-95-02, outlining the prohibitions associated with installing or maintaining a cross connection, contains minor

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proposed amendments that similarly aim to improve the clarity of the rule by simplifying the language.

OAC rules 3745-95-03, 3745-95-04, 3745-95-06, along with 3745-95-09 however, have more significant amendments proposed. These rules have been altered enough that they will be rescinded and reintroduced as new rules. The proposed amendments do not alter general policy or process but alter language significantly to improve clarity of what the rule requires. Rule 3745-95-03 contains the requirements of how investigations and surveys must be conducted when reviewing possible cross connections. The proposed amendments to this rule include additional factors to review in the initial assessment, and clarification as to what medium the educational campaigns may be given thru to forgo a periodic investigation. Rule 3745-95-04, which entails where backflow preventers should be installed, also received significant proposed amendments. The division is proposing to differentiate requirements for larger community water systems (i.e., municipal systems) from those for noncommunity water systems and smaller community water systems (i.e., apartment buildings or manufactured home parks), as well as clarifying language to improve the continuity of the rule package. Both OAC 3745-95-03 and 3745-95-04 format was modified to subset the rule requirements into those applying to noncommunity water systems versus community water systems to provide more specific direction for each type of PWS to comply with backflow prevention provisions and clarify expectations.

Rule 3745-95-06, which entails what constructions and model types of backflow preventers are appropriate for use within a PWS, also has significant amendments proposed. Most of these focus on rewording and clarifying the exact standards that are to be referenced when selecting a backflow preventer for a specific purpose. Instead of referring to the Ohio Plumbing Code regulations for the applicable standards, these standards were listed out in rule, and are complementary. This was done to avoid losing another agency's rule reference if it is rescinded during a rule review period. DDAGW is also proposing to add conditions that must be met when installing backflow preventers. These conditions are current policy and will provide additional clarity within the rule. Finally, rule 3745-95-09 which details the requirements of yard hydrants that are installed on a PWS, has been reformatted and reworded to improve the clarity of the regulation. The proposed amendments also include an improved citation to the standard that was referenced to build the proposed rule.

OAC 3745-95-05, 3745-95-07 and 3745-95-08 have also been proposed to be filed with amendments, but to a lesser degree compared to the edits other rules in the package are receiving. Rule 3745-95-05 covering the type of protections needed at different degrees of hazard within a PWS, been proposed to replace outdated language and spelling errors with more suitable terms that will help PWS operators understand the requirements better. Rule 3745-95-07 holds regulations pertaining to the use of booster pumps and the approved circumstances and methods in which they may be connected to water lines. The amendments

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proposed to this rule aim to eliminate unnecessary text that may confuse PWS operators or cloud the intentions of the rule. The amendments also include an updated reference to where the standard used to generate these rules can be viewed electronically. Rule 3745-95-08 contains the circumstances that must be present for a water supplier to discontinue service to the premises. The only amendment proposed to this rule is a change in the title from “Violations” to “Deny or Discontinue water service”

3. Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.

ORC Section 6109.04 authorizes the agency to adopt this regulation and states that the director shall “adopt, amend, and rescind such rules in accordance with Chapter 119 of the Revised Code as may be necessary or desirable to...govern public water systems to protect the public welfare, including rules governing contaminants in water that may adversely affect the sustainability of the water for its intended uses or that may otherwise adversely affect the public health or welfare.”

4. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program? If yes, please briefly explain the source and substance of the federal requirement.

The rules in OAC Chapter 3745-95 do not specifically implement federal requirements, but they do protect public drinking water systems from contamination due to poor well construction and treatment design, as well as prevent the potential backflow of hazardous substances through cross-connections to a public water system.

5. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.

The rules in this package do not exceed the scope of federal requirements.

6. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?

The public purpose for adopting such regulations (as stated in ORC Section 6109.04) is ensuring the availability of a safe and adequate supply of public drinking water. These rule amendments help achieve this purpose by ensuring PWSs have drinking water sources that are protected from contaminants by the establishment and oversight of public water system

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design, construction and repairs made, and by establishing backflow preventer and cross-connection control requirements.

7. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?

The Agency will base success of the backflow prevention rules on public water system compliance rates within our various drinking and ground water programs. PWS compliance rates are typically discovered through reported data and during sanitary surveys of PWS.

8. Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?

If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.

No.

Development of the Regulation

9. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation. *If applicable, please include the date and medium by which the stakeholders were initially contacted.*

Stakeholders include public water system owners and operators, consultants, environmental organizations, other state agencies and in general, the public at large. The only measure someone must take to be notified of DDAGW's potential rule activity is to request to be added to our electronic or hard copy mailing list. In fact, stakeholders may sign-up themselves for this notification.

Stakeholders were notified of the DDAGW's intent to file these proposed changes on February 25th, 2020 by electronic mail. The early stakeholder outreach period was from February 25th 2020 until March 24th 2020.

In addition, DDAGW will be seeking comment from stakeholders during the division's interested party review period. The interested party review period occurs before the rules are filed with JCARR and is used to address any concerns or questions from staff and our stakeholders.

10. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

Stakeholders were notified of the DDAGW's intent to file these rules as Amended on February 25th, 2020 by electronic mail. The agency received zero comments from stakeholders during this period regarding the proposed revisions.

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11. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?

Statutory authority for these rules is established in Section 6109 of the Revised Code and Ohio EPA promulgated these rules under Rules 3745-09-01 through 3745-09-10. References used include the latest revisions to 40 CFR Part 141 Subpart Y. Based on past data collected by the Ohio EPA and under previously stated authority of Chapter 6109 of the Ohio Revised Code, the agency determined that the amendments to be made are appropriate.

Majority of these amendments were internally driven, issues discovered during sanitary surveys coupled with complaints from PWS and our staff launched the proposed amendments.

12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

The regulations in OAC Chapter 3745-95 maintain consistency with existing plumbing and fire codes and were, therefore, developed with limited alternatives.

13. Did the Agency specifically consider a performance-based regulation? Please explain. *Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.*

The backflow prevention rules in OAC Chapter 3745-95 are performance-based in that they define when backflow preventers are required, but they allow the PWS to determine the appropriate device to use for the degree of hazard.

14. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

The agency reviewed the regulation alongside existing regulatory documents and determined they did not duplicate an existing regulation.

15. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

Ohio EPA provides draft rule revisions to staff for internal review and comment. Additionally, training may be provided, and all effective rule revisions are distributed to staff. Implementation of these rules include the following:

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- Seeking input from staff on implementation problems and developing solutions.
- Involving staff in developing the rule amendments.
- Developing internal procedures and guidance documents for staff to use in implementing rules.
- Regularly notifying staff of rule changes.
- Giving presentations on rule updates.

Adverse Impact to Business

16. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

a. Identify the scope of the impacted business community; and

3745-95-01: All PWS in Ohio will be regulated by the definitions listed in this rule.

3745-95-02: This rule will impact any consumers who have installed or are planning to install a water use practice that represents a backflow hazard by way of an actual or potential cross connection.

3745-95-03: The impact of this rule would fall on the PWS as they must be prepared for these surveys and investigations and dedicate personnel to complete them. They also have the option to choose to forgo periodic on-site investigations for residential premises not likely to have a hazard if they conduct an educational campaign to inform consumers of the hazards associated with backflows and cross-connections.

3745-95-04: The impact of this rule would fall to the consumer, and in cases where the PWS is the same as the consumer/owner, to the PWS. As the consumer is responsible for the costs of installing such backflow preventers for the systems that require it. PWS must apply the provisions of this rule to its service connections which require personnel.

3745-95-05: The impact of this rule will fall to customers required to install backflow prevention and cross-connection protection, including PWS who are also the owner/consumer. PWS must apply the provisions of this rule to its service connections which require personnel.

3745-95-06: The impact caused by this rule will fall mainly to the consumer as they are responsible for testing, replacing, and repairing the backflow preventer if they are found to be defective. PWS have impact of consumer notification and record keeping.

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3745-95-07: The impact of this rule will likely be placed on the consumer attempting to install a booster pump, depending on the reason for the need of the booster pump.

3745-95-08: The impact of this rule will fall mainly to the PWS, as the cessation of water to a consumer will cause lost revenue for the PWS if service is discontinued or denied to a consumer who failed to comply with backflow prevention requirements.

3745-95-09: The impact of this rule will be placed on the consumer, as they will be responsible for installing sanitary yard hydrants and/or installing and maintaining backflow prevention on the yard hydrants. When the PWS is also the owner/consumer, the impact will be on the PWS.

b. Identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance,); and

3745-95-01: There will be no adverse impact from the rule and its proposed changes, as the rule defines terms that will be used throughout the rest of the chapter.

3745-95-02: There will be no adverse impact from the rule and its proposed changes, the rule merely states that no person shall install or maintain cross connection unless they are compliant with the rules stated in the chapter.

3745-95-03: The costs incurred would be for the onsite investigation of all premises at least every five years to identify and mitigate backflow hazards. In lieu of conducting onsite investigations of each premise, the water supplier may opt to implement an ongoing educational campaign instead of conducting onsite investigations of each residential premise.

3745-95-04: The adverse impact is the cost associated with installing and maintaining a backflow preventer for the systems with the circumstances that require them to be installed.

3745-95-05: The adverse impact from this rule will be the costs incurred by systems required to install backflow prevention and cross-connection protection. The regulation describes the type of protection required and provides an exception in certain circumstances, allowing for a different type of protection.

3745-95-06: The adverse impact from this rule will be the costs associated with selecting an appropriate backflow preventer that is not only installed to the specifications required

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by the agency, but that the backflow preventer itself meets the standards referenced by the agency.

3745-95-07: The adverse impact from this rule will be the costs incurred for the minimum pressure sustaining method when a booster pump is installed.

3745-95-08: The adverse impact of this rule will be the loss of revenue for water a PWS is not able to sell while the water service is discontinued or denied to a consumer who failed to comply with backflow prevention requirements.

3745-95-09: The adverse impact of this rule will be cost associated with sealing preexisting weep holes in yard hydrants and ensuring future installation meets the standard that is referenced within the rule.

c. Quantify the expected adverse impact from the regulation.

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a “representative business.” Please include the source for your information/estimated impact.

3745-95-01: The additional definitions involved in regulating backflow prevention and cross connections will not incur any additional costs onto the PWS or consumer.

3745-95-02: The cost of eliminating the cross-connection or mitigating the hazard at the service connection using a containment principal backflow preventer could range from approximately \$100 (for plumbing modification) to \$13,000 (for installation of a backflow preventer, depending on type and size).

3745-95-03: The costs associated with conducting on site investigations and surveys is based on information found in the American Water Works Association journal. Costs will vary depending on the size of the PWS and the number of cross connections. However, the annual costs for smaller public water systems (serving a population of 5,000 or less) to run a cross-connection control program approximately ranged from \$14,000 to \$19,000. ¹ Costs to Ohio PWSs would include an onsite investigation of all service connections every five years for changes in water use practices at a consumer’s property. An average cost for a Class I or Class II Certified Operator to perform an inspection is approximately \$38 - \$41 per hour, per service connection. At minimum, an inspection would take approximately twenty minutes. *

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* U.S. Department of Labor, Bureau of Labor Statistics Inflation Calendar used to account for inflation from 2008 – 2021.

¹ Fredrick W. Pontius and William B. Evans, An analysis of potential costs for small community cross-connection control. Journal AWWA (American Water Works Association), July 2008.

PWS also can reduce their costs by implementing a program to identify potential hazards through a questionnaire or information obtained from other licensing agencies, and then conduct onsite investigations only on those premises determined with a potential new or increased hazard. The questionnaire could be included in the PWSs water bill, so costs for a questionnaire would primarily include the printing and compiling information as it is provided to the supplier. PWS can also implement an ongoing education campaign instead of conducting onsite investigations at each residential premise. The costs associated with this option would consist of preparing and sending an electronic or hard copy notice to these consumers.

3745-95-04: The impact of this rule is the cost associated with installing and maintaining a backflow preventer. The cost of compliance varies directly with the size and number of devices required. For a consumer with a small auxiliary system, typical costs for the purchase and installation of an approved backflow preventers are approximately \$350.00. Annual costs for maintenance and testing are approximately \$150.00. For a large consumer, such as a sewage treatment plant or hospital, typical costs for the purchase and installation of an approved backflow preventers are approximately \$13,000.00. Annual costs for maintenance and testing are approximately \$200.00 or more. When a local government or school district is not required to install backflow prevention, the cost of compliance results from an annual inspection to prevent unauthorized cross-connections. The average cost for this inspection is expected to be approximately \$100.00. This cost may be covered by the public water system or the water system may charge the consumer for the inspection or require them to hire a third-party inspector.

3745-95-05: The cost associated with complying with this rule will vary based on the size and number of devices required. For a consumer with a small auxiliary system, typical costs for the purchase and installation of an approved backflow prevention device are approximately \$525. Annual costs for maintenance and testing are approximately \$225. However, this cost may be less if a residential property meets the new exemption specifications which permit a pressure vacuum breaker in place of a backflow prevention device. For a large consumer, such as a sewage treatment plant or hospital, typical costs for the purchase and installation of an approved backflow prevention device are approximately \$19,520. Annual costs for maintenance and testing are approximately

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\$300 or more. When a local government or school district is not required to install backflow prevention, the cost of compliance results from an annual inspection to prevent unauthorized cross-connections. The average cost for this inspection is expected to be approximately \$150. This cost may be borne by the public water system or the water system may charge the consumer for the inspection or require them to hire a third-party inspector. *

* U.S. Department of Labor, Bureau of Labor Statistics Inflation Calendar used to account for inflation from 2014 – 2021.

3745-95-06: For a consumer with a smaller service connection, typical costs for purchase and installation of an approved backflow prevention device are approximately \$525. Annual costs for maintenance and testing are approximately \$225. For a large consumer, such as a manufacturing business or hospital, typical costs for purchase and installation of an approved backflow prevention device are approximately \$19,520. Annual costs for maintenance and testing are approximately \$300 or more. These estimates are based on price lists of approved devices and prevailing wages for plumbers and backflow prevention specialists. *

* U.S. Department of Labor, Bureau of Labor Statistics Inflation Calendar used to account for inflation from 2014 – 2021.

3745-95-07: The costs to consumers would only involve the cost of a low-pressure cut-off switch or a low suction throttling valve in the pump design. A low-pressure cut-off device would add a moderate cost. A low suction throttling valve would add a cost of approximately \$1,700 to \$2,300. A variable speed suction limiting control would be integral to the pump cost. Annual costs for maintenance and testing of the selected minimum suction pressure sustaining method are approximately \$175. *

* U.S. Department of Labor, Bureau of Labor Statistics Inflation Calendar used to account for inflation from 2014 – 2021.

3745-95-08: A PWS that discontinues or denies service to a consumer who fails to comply with backflow prevention requirements will lose some revenue for water they are not selling. However, this scenario is rare and the associated loss of revenue is generally negligible. Moreover, the cost of non-compliance, which could result in the backflow of contamination into the public water system's distribution system, could be much more costly.

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3745-95-09: The additional cost associated with replacing yard hydrants with weep holes that do not meet the requirements of the rule is approximately \$673 (to replace it with a sanitary yard hydrant). Another cost may be for an approved backflow prevention device. An appropriate device would amount to a one-time cost of \$140 to \$580, depending on the diameter of the device needed. The device could be installed in couple of hours by the PWS or if needed, a licensed plumber.

17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

The Agency considers the overall cost for complying with these regulations to be minor in comparison with ensuring the public is supplied with a safe and reliable source of drinking water.

Regulatory Flexibility

18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

An alternative is included within rule 3745-95-03 that does not require an initial assessment to be performed on residential premises so long as water supplier has alternative methods to identify if new hazards that may impact the water supply. The same rule also has another alternative built in, the ability for water suppliers to not conduct on site investigations if they institute an on-going educational campaign to inform consumers of common backflow hazards created during residential use. DDAGW has also built alternatives into rule 3745-95-06 that allows the director to approve other certain backflow preventers within single property community water systems.

19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

Ohio EPA does not assign fines and penalties for first-time offenders and prefers to obtain compliance through outreach first and if needed, written notice of violations prior to any type of formal enforcement.

20. What resources are available to assist small businesses with compliance of the regulation?

The following resources are available:

- Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) is a non-regulatory program that provides information and resources to help small businesses comply with environmental regulations. OCAPP also helps customers identify and implement pollution prevention measures that can save money,

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increase business performance and benefit the environment. Services of the office include a toll-free hotline, on-site compliance and pollution prevention assessments, workshops/training, plain-English publications library and assistance in completing permit application forms. Additional information is available at epa.ohio.gov/ocapp.

- Facilities can contact members of Ohio EPA's Division of Drinking and Ground Waters' Underground Injection Control (UIC) Unit for technical assistance. They can be reached by calling 614-644-2752. The UIC Unit also maintains a website which includes answers to many commonly asked questions (<http://epa.ohio.gov/ddagw/uic.aspx>).
- Ohio EPA maintains the Compliance Assistance Hotline 800-329-7518, weekdays from 8:00 a.m. to 5:00 pm and a permit assistance webpage (https://www.epa.ohio.gov/dir/permit_assistance) that contains links to several items to help businesses navigate the permit process, including the Permit Wizard, Answer Place, Ohio EPA's Guide to Environmental Permitting and eBusiness Center.