



February 3, 2025

TO: Benita Best-Wong
Acting Assistant Administrator
Office of Water
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

SUBMITTED ELECTRONICALLY

RE: Joint Letter of Recommendations for Opportunities for Revising Microbial and Disinfection Byproduct (MDBP) Rules from AWWA, AMWA, and ASDWA

Dear Ms. Best-Wong:

The Association of Metropolitan Water Agencies (AMWA), the American Water Works Association (AWWA), and the Association of State Drinking Water Administrators (ASDWA) are pleased to offer the following joint letter of recommendations regarding this year's microbial and disinfection byproducts (MDBP) rule revision rulemaking. The associations, like EPA, have a strong interest in effective regulation that provides meaningful opportunities for risk reduction through practical and implementable requirements.

The MDBP rules span decades of drinking water regulation. The success of these rules reflects the collaboration of our associations with EPA. Together we have ensured that these rules support proactive risk management through requirements that can be effectively implemented by state primacy agencies and public water systems. This year's rulemaking is an opportunity to strengthen public health protection by learning from more than 30 years of state and water system practice under the existing regulatory structure. We recommend that EPA meet its court-ordered deadlines for this rulemaking and do so by limiting the rulemaking to the following requirements and considerations:

1. Revise the current Surface Water Treatment Rule (SWTR) secondary disinfection requirement to:
 - a. Establish a minimum numeric level of 0.2 mg/L for chlorine and total chlorine secondary disinfectant residuals.
 - b. Replace the current secondary disinfectant compliance algorithm to require water systems to evaluate (and when necessary) respond to individual

secondary disinfectant residuals observations at compliance monitoring locations below 0.2 mg/L chlorine or total chlorine.

- c. In addition to current monitoring for secondary disinfectant residual at Total Coliform Rule (TCR) locations, consider an option for compliance monitoring locations to also monitor for residual at compliance monitoring locations for disinfection byproducts.
2. Consider an option for review of DBP compliance monitoring plans for total trihalomethanes (TTHM) and haloacetic acid five (HAA5), for inclusion of monitoring locations representative of consecutive system interconnects.
3. Revise the SWTR to require regular inspection and maintenance of finished water storage facilities.

EPA should refrain from making additional changes in these rules until it has accrued sufficient data, including national representative datasets, to credibly prepare the regulatory analysis required under SDWA.

Secondary Disinfectant Residual Level Requirements

Revision of the SWTR secondary disinfectant residual requirement will facilitate drinking water distribution system management and effective maintenance of water quality.

Adopt a minimum numeric disinfectant residual level of 0.2 mg/L.

Setting a minimum numeric level of 0.2 mg/L (1) recognizes the current technical capabilities of available analytical methods and (2) is consistent with state practice where numeric minimum secondary disinfectant residual concentrations have already been set. Employing a numeric residual of 0.2 mg/L for both free chlorine and chloramines respectively acknowledges anticipated compliance implications from (1) changes in the compliance data set, (2) changes in the compliance algorithm, and (3) and risk-risk balancing between the addition of additional chlorine and the formation of disinfection byproducts (DBPs). Setting a minimum numeric limit of 0.2 mg/L would ensure that secondary disinfectant residual levels are measured with confidence based on the practical quantification limit of the handheld spectrophotometry method and would be in accordance with residual requirements set by nearly half of the states in the U.S. The systems that do not currently disinfect would not be required to start disinfection, and this consideration would not impact states that have a minimum residual requirement more conservative than the federal standard.

Given the levels of secondary disinfectant residual used in drinking water, readily available spectrophotometer-based instrumentation provides an opportunity to improve on analytical reliability. It is no longer necessary for color comparator methods relying on the human eye for quantification to be used for secondary disinfectant residual monitoring under the SWTR (i.e. color wheel).

Inactivation of *Legionella pneumophila* – While NDWAC’s advice to EPA assumed a connection between the minimum numeric secondary disinfectant residual level and inactivation of *L. pneumophila*, there is not a sound scientific basis for this conclusion. Available occurrence data are not adequate to support the agency meeting its statutory duty under the Safe Drinking Water Act (SDWA) to provide a credible

estimate of the potential health benefits from reduced exposure to *L. pneumophila* or other opportunistic pathogens through modifying the SWTR secondary disinfectant residual standard.

Enhance monitoring of secondary disinfectant residuals.

Systems are currently collecting at least a required minimum number of samples based on their system size at sample sites selected under the TCR. EPA has not collected data to support revising federal TCR monitoring requirements or the associated secondary disinfectant residual monitoring since that rulemaking in 2013.

Monitor Secondary Disinfectant Residual at Stage 2 DBPR Sample Sites - Under the Stage 2 DBPR each system conducted an Initial Distribution System Evaluation (IDSE) and now monitors for disinfection byproducts (DBPs) on a regular basis. By monitoring secondary disinfectant residual levels when TTHM and HAA5 compliance samples are drawn, the secondary disinfectant residual monitoring sample set will be expanded to include locations that are at risk of low residual levels. This will help improve water systems' understanding of potentially challenging areas of their distribution systems with respect to secondary disinfectant residual.

NDWAC also recommended SWTR secondary disinfectant residual monitoring at finished water storage facilities. Monitoring residual levels at finished water storage facilities is not an appropriate compliance monitoring approach. An alternative that addresses NDWAC's concerns is adding Stage 2 DBPR compliance monitoring sample locations to the required secondary disinfectant residual monitoring sample sites. Use of Stage 2 DBPR sites in combination with tank inspection and maintenance, will address the concerns articulated by the NDWAC work group.

Secondary Disinfectant Residual Reaching Consecutive Systems – Typical operational monitoring practice includes sampling to understand secondary disinfectant residual (1) reaching consecutive systems (wholesaler) and (2) received by consecutive systems (consecutive system). Existing monitoring plans will be fit-for-purpose rather than to meet regulatory requirements, unless there is a state-specific requirement. To obtain useful information as efficiently as possible, sampling will tend to (1) focus on sample sites that are representative of water quality at the interconnection to a purchasing water system, (2) focus on sample sites that provide information about the interconnects with the most flow (e.g., most impact on the greatest portion of the communities served) and (3) occur at a frequency in keeping with operational needs. Expanding SWTR secondary residual compliance monitoring to include sample sites at each interconnection would create unnecessary monitoring burdens. If included in SDWA compliance monitoring, systems would have to report, and states would have to track monitoring at a large number of new locations, many of which would be in intermittent operation. A more readily implemented alternative would be to incorporate sample sites that are representative of interconnects as described above.

The NDWAC recommended that EPA pursue a “*problem-based consultative requirement between wholesale and consecutive systems.*” SDWA does not provide EPA with the authority to require a joint effort to conduct a root-cause analysis by the wholesaler, consecutive system, and the primacy agency. Moreover, if implemented, this approach would create significant burdens for primacy agencies.

SDWA holds each public water system responsible for its own compliance with primary drinking water standards. It would not be appropriate to establish a federal requirement that holds a public water system responsible for managing the water quality of a separate, independent public water system. Nor would it be appropriate to create a regulatory framework in which primacy agencies are tasked with re-negotiating contractual agreements between public water systems.

The above recommendations will result in disinfectant residual and DBP monitoring representative of interconnections between systems. This sets the stage for determining if those problems are most readily resolved through (1) changes in wholesaler operations or (2) capital investments or operational changes by the consecutive system.

Finished Water Storage Facility Inspection and Maintenance Requirements

Finished water storage facilities, including tanks and reservoirs, should be inspected regularly and, as appropriate, repaired or cleaned to ensure that the facilities are structurally sound so that water quality in the distribution system is not compromised. It is critical that any requirements for the inspection and cleaning of finished water storage facilities are not structured in a way that compromises the ability of the water systems to operate effectively and safely for the communities they serve.

Add Finished Water Storage Facility Inspection and Maintenance Element to the SWTR.

Systems subject to the SWTR should be required to ensure that facilities used for water storage be operated free of sanitary defects. EPA should refer to individual association comments on definitions of water storage facilities.

Visual Exterior and Comprehensive Inspection and Maintenance Requirements.

The following proposed approach includes two tiers of inspections. The nature and frequency of the two types of inspection balance the level of effort and necessity.

1. Exterior inspection -- All aboveground ground exterior portions of finished water storage facilities must be visually inspected at least annually. The purpose of this inspection is primarily to ensure that apparent, exterior structural issues (e.g., foundation issues, cracks, loose bolts, etc.) are identified in a timely manner and to ensure that any opportunities for microbiological contamination (e.g., broken or open vents, leaks, damaged screens, etc.) are addressed.
2. Comprehensive inspection -- Interior and exterior inspection of each finished water storage facility every five years. The comprehensive inspection should expand on the annual inspection to include the interior of the finished water storage facility. Inspection would identify cracks, structural issues, and other issues. In conducting a comprehensive inspection, sediment buildup may need to be removed to inspect the floor.

In recognition that not all finished water storage facilities are the same (e.g., date of installation, material, design, and role in distribution system) primacy agencies will need authority to allow a more extended period of time between comprehensive inspections.

Violations and Public Notifications.

The rule revisions regarding finished water storage should require water systems to maintain records of inspection reports, corrective action plans, and documentation of corrective actions. These records would be available to primacy agencies including during sanitary surveys.

Under this requirement, primacy agencies should have the authority to issue significant deficiencies for water systems that have (1) not conducted inspections in accordance with the timelines, (2) did not keep adequate records of inspections and corrective action plans, and/or (3) did not complete corrective action plans.

Systems Complying with SWTR Including GWUDI Systems.

The SWTR applies to systems treating source water drawn from a surface water supply(ies) and/or groundwater under direct influence (GWUDI) of surface water. The rule requires these systems maintain a secondary disinfectant residual level. Consecutive systems receiving treated surface water / GWUDI must also meet SWTR requirements included those anticipated in the upcoming rulemaking, including (1) secondary disinfectant residual level-related and (2) finished water storage facility inspection and maintenance requirements.

Expanding Tools for GWUDI Determinations

Determining that a groundwater source is under the direct influence of surface water can be a challenging process and requires an adequate toolbox and expertise to ensure success. EPA should continue to evaluate potential tools to support GWUDI determinations and engage the expert community in refining those tools. GWUDI determinations are deeply intertwined with implementation of the GWR. EPA would enjoy greater success if it developed a research and data collection strategy to support the review and potential revision of the GWR and not attempt to modify GWUDI determinations within the current revisions to the SWTR.

DBP Precursor Screening and Removal

At this time, EPA does not have the necessary data to support analysis of the NDWAC recommendations for source water screening and precursor removal requirements that would credibly meet its statutory duties under SDWA. EPA should not expand monitoring and reporting requirements under the current regulatory framework for unregulated contaminants for the purposes of a data collection and evaluation strategy. Insufficient data is available to substantiate revisions for total organic carbon (TOC) removal, including:

1. Characterize national occurrence of TOC at the entry points to distribution systems.
2. Estimate the number of systems impacted by revisions to the TOC removal requirements
3. Characterize the performance capacity of water systems to comply with revisions to the TOC removal requirements and estimate the associated costs to comply.
4. Characterize the potential reductions in DBP formation corresponding to revisions and the associated health benefits of reduced DBP exposure.

Additionally, the NDWAC process and the associated recommendations did not adequately address the following:

1. The state of the health effects science presented by EPA to the NDWAC are not adequate to support decisions to impose regulations that further reduce DBPs concentrations.
2. TOC does not meet SDWA criteria for regulation as a contaminant, as TOC does not pose a risk to human health and therefore the recommendation for a TOC MCL is inappropriate.
3. EPA should pursue its non-SDWA authorities to protect drinking water nationally, but the agency should not impose a source water protection requirement onto drinking water systems as water systems are not in a position to hold upstream dischargers responsible for their compliance with the Clean Water Act and/or their discharge of unregulated contaminants into surface waters.

Enhanced DBP Monitoring During Free Chlorine Periods

NDWAC recommended that chloraminating water systems conducting chlorine conversions also perform monitoring for DBPs during those periods and to use a revised formula to determine the locational running annual average (LRAA); this is unwarranted, given the risk reduction premise and imposes a difficult to implement monitoring and reporting scheme for water systems to implement and primacy agencies to oversee.

The associations' members are concerned that this rulemaking both take place on the required timeline and be supportable by the best available science. To-date, M/DBP rulemakings have relied on close coordination between regulators and the water system community because disinfectant practice is central to system operations and involve significant risk-risk trade-offs. We hope that your office will give this rulemaking the attention it warrants, and that the agency will focus the rulemaking as we have recommended.

If you have any questions regarding this correspondence, please contact the undersigned association leaders.

Best regards.

ON BEHALF OF AWWA

ON BEHALF OF AMWA

ON BEHALF OF ASDWA



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CC: Jennifer McLain, Director, US EPA Office of Groundwater and Drinking Water