



**Information Collection
Request for the
Disinfectants/Disinfection
Byproducts, Chemical,
and Radionuclides Rules**

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ACRONYMS

AMWA	Association of Metropolitan Water Agencies
ASDWA	Association of State Drinking Water Administrators
AWWA	American Water Works Association
BATs	Best Available Technologies
BLS	Bureau of Labor Statistics
CCR	Consumer Confidence Report
CCT	Corrosion Control Treatment
CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
CT	Contact Time
CWS	Community Water System
CWSS	Community Water System Survey
DBP	Disinfection Byproduct
DBPR	Disinfectants and Disinfection Byproducts Rule
DDBP/Chem/Rads	Disinfectants and Disinfection Byproducts, Chemical, and Radionuclides Rules
DWSRF	Drinking Water State Revolving Fund
EA	Economic Analysis
EPA	Environmental Protection Agency
ERP	Enforcement Response Policy
ETT	Enforcement Targeting Tool
FACA	Federal Advisory Committee Act
FR	Federal Register
GWR	Ground Water Rule
HAA5	Haloacetic Acids
ICR	Information Collection Request
IDSE	Initial Distribution System Evaluation
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOCs	Inorganic Compounds
LCR	Lead and Copper Rule
LCRMR	Lead and Copper Rule Minor Revisions
LSL	Lead Service Line
LSLR	Lead Service Line Replacement
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDL	Method Detection Limit
MRDL	Maximum Residual Disinfection Level
mrem	Millirem
NAICS	North American Industry Classification System
NAWC	National Association of Water Companies
NDWAC	National Drinking Water Advisory Council
NPDWRs	National Primary Drinking Water Regulations
NRWA	National Rural Water Association
NTNCWS	Nontransient Noncommunity Water System
OECA	Office of Enforcement and Compliance Assurance

OGWDW	Office of Ground Water and Drinking Water
O&M	Operation and Maintenance
OMB	Office of Management and Budget
pCi/L	PicoCuries per liter
PN	Public Notification
PRA	Paperwork Reduction Act
PWS	Public Water System
PWSS	Public Water System Supervision
RegNeg	Regulatory Negotiation
RFA	Regulatory Flexibility Act
SBREFA	Small Business Regulatory Enforcement Fairness Act
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SMF	Standardized Monitoring Framework
SOCs	Synthetic Organic Compounds
SWAP	Source Water Assessment Program
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TNCWS	Transient Noncommunity Water System
TOC	Total Organic Carbon
TTHM	Total Trihalomethane
UCMR	Unregulated Contaminant Monitoring Rule
UIC	Underground Injection Program
VOCs	Volatile Organic Compounds
WQP	Water Quality Parameter

1 IDENTIFICATION OF THE INFORMATION COLLECTION

1(a) Title and Number of the Information Collection

Title: Disinfectants/Disinfection Byproducts, Chemical, and Radionuclides Rules

OMB Control Number: 2040-0204

EPA Tracking Number: 1896.10

1(b) Short Characterization

The Office of Ground Water and Drinking Water (OGWDW) in the Office of Water at the United States Environmental Protection Agency (EPA) is responsible for managing the Public Water System Supervision (PWSS) Program, a national program mandated by the Safe Drinking Water Act (SDWA). Section 1412 of the SDWA requires EPA to establish National Primary Drinking Water Regulations (NPDWRs) for contaminants that may adversely impact human health. The Act requires EPA to monitor and enforce these regulations to ensure that the nation's drinking water dependably complies with the maximum contaminant levels (MCLs) or maximum residual disinfectant levels (MRDLs), as stipulated in the Code of Federal Regulations (CFR), 40 CFR Part 141, Subpart B.

Section 1445 of the SDWA states that public water systems shall conduct monitoring, maintain records, and provide such information as is needed for EPA to implement its monitoring and enforcement responsibilities with respect to the Act. Primacy agencies, state governments that have assumed primary enforcement responsibility under SDWA section 1413, ensure that PWSs are complying with these monitoring requirements.

As part of the PWSS Program, OGWDW uses the Safe Drinking Water Information System (SDWIS) to record some of the data collected as a result of NPDWR requirements. These data assist EPA in fulfilling its SDWA obligations. SDWIS is a database management system that assists EPA in tracking and interpreting violations data and other program-related data. Revisions are currently being made to SDWIS. EPA expects primacy agencies to fully transition to the revised system, a centralized, cloud-based system called SDWIS Prime, in the subsequent ICR period.

This ICR was prepared in accordance with the October 2009 version of EPA's Guide to Writing Information Collection Requests Under the Paperwork Reduction Act (PRA) of 1995 (or "ICR Handbook") prepared by EPA's Office of Environmental Information, Office of Information Collection, Collection Strategies Division. The ICR Handbook provides the most current instructions for ICR preparation to ensure compliance with the 1995 PRA amendments and the Office of Management and Budget's (OMB's) implementing guidelines.

Many information collection requirements associated with SDWA and its implementing regulations are associated with rulemakings that address specific contaminants or groups of contaminants. This ICR examines PWS, primacy agency, and EPA burden and cost for chemical

and disinfection byproduct regulations only. Microbial contaminants, such as those regulated under the Total Coliform Rule (TCR), are addressed in the Microbial Rules ICR (OMB No. 2040-0205). Cross-cutting recordkeeping and reporting requirements—are addressed in the PWSS Program ICR (OMB No. 2040-0090).

The specific chemical regulations addressed in this ICR include the following:

- 1) Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR)
- 2) Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR)
- 3) Chemical Phase Rules (Phases II/IIB/V)
- 4) Radionuclides Rule
- 5) Disinfectant Residual Monitoring and Associated Activities under the Surface Water Treatment Rule (SWTR)¹
- 6) Arsenic Rule
- 7) Lead and Copper Rule (LCR)

This ICR estimates burden and costs for January 1, 2016 – December 31, 2018.

The total annual burden associated with this ICR is estimated to be 5.3 million hours per year. The total annual cost associated with this ICR is estimated to be approximately \$464.9 million. The distribution of annual burden between PWSs and primacy agencies is approximately 3.3 million hours and 2.0 million hours, respectively (numbers may not add due to rounding). The distribution of annual costs between PWSs and primacy agencies is approximately \$374 million and \$90 million, respectively. There is no Agency burden or cost. Section 6 and Appendices B through H provide details of all burden and cost estimates.

The approximate annual operation and maintenance (O&M) and capital costs are \$259 million, with \$253 million attributed for O&M and \$5.5 million for capital. This represents the “cost burden” as reported in the OMB inventory.

The total annual number of respondents for this ICR is 149,822. Fifty-seven of these respondents are primacy agencies and the remaining 149,765 respondents are existing PWSs. The total annual number of responses for these respondents is 12.9 million; 11.9 million for PWSs and 1.0 million for primacy agencies.

¹ Includes only the SWTR components relating to disinfectant residual monitoring and associated activities. All remaining SWTR requirements are included in the Microbial Rules ICR.

2 NEED FOR AND USE OF THE COLLECTION

2(a) Need/Authority for the Collection

This section identifies the regulatory or statutory authority for the information collection activities covered in this ICR and explains EPA's need for the information. A summary of the major types of recordkeeping and reporting requirements for the contaminants covered by this ICR is provided in Section 4 of this ICR.

To allow the public to better understand the impact of the recordkeeping and reporting requirements stemming from the SDWA and 40 CFR Parts 141 and 142, OGWDW has organized its ICRs so that related activities are addressed in the same ICR. Specifically, there are three primary ICRs—the Microbial Rules ICR, the Disinfectants/Disinfection Byproducts, Chemical and Radionuclides Rules (DDBP/Chem/Rads Rules) ICR, and the Public Water Systems Supervision Program (PWSS Program) ICR. The Microbial Rules ICR includes rules addressing microbial contaminants, such as the TCR, Surface Water Treatment Rule (SWTR), and the Ground Water Rule (GWR). The PWSS Program ICR includes public notification and rules and programs addressing cross-cutting requirements that are not contaminant-specific. The DDBP/Chem/Rads Rules ICR includes rules addressing chemical contaminants. The specific chemical regulations addressed in this ICR are:

- 1) Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR)
- 2) Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR)
- 3) Chemical Phase Rules (Phases II/IIB/V)
- 4) Radionuclides Rule
- 5) Disinfectant Residual Monitoring and Associated Activities under the Surface Water Treatment Rule (SWTR)²
- 6) Arsenic Rule
- 7) Lead and Copper Rule (LCR), including the Lead and Copper Rule Short Term Revisions

For a graphical depiction of the structure of the OGWDW ICRs, see Figure 1. A complete itemization of the activities included in the three primary ICRs, as well as other drinking water program ICRs, is included as Exhibit 1.

The 1986 Amendments to SDWA required the Agency to publish maximum contaminant level goals (MCLGs) and promulgate NPDWRs for 83 specific contaminants. Promulgation of the chemical-related rules contained in this ICR complies with the statutory requirements for some of these contaminants. Promulgation of the Stage 1 and Stage 2 DBPRs and the Arsenic Rule complies with the 1996 amended statutory requirements for these contaminants.

The 1986 SDWA Amendments required the EPA to propose and promulgate a NPDWR specifying criteria under which filtration would be required as a treatment technique for PWSs supplied by surface water sources (section 1412 (b)(7)(C)(i)). Promulgation of the SWTR

² Includes only SWTR components relating to disinfectant residual monitoring and associated activities. All remaining SWTR requirements are included in the Microbial Rules ICR.

satisfied this SDWA requirement. The SWTR includes disinfection residual monitoring requirements that are addressed in this ICR.

The information collected under this ICR is required by EPA to carry out its monitoring and enforcement responsibilities as specified under SDWA and its amendments. Without comprehensive, up-to-date information on these contaminants, the Agency would not be able to meet these statutory requirements.

Section 1412(b) authorizes EPA to establish NPDWRs to protect public health. Section 1445 of the SDWA requires that “every person who is a supplier of water shall establish and maintain such records, make such reports, conduct such monitoring, and provide such information as the Administrator may reasonably require by regulation to assist him in establishing regulations, in determining whether such person has acted or is in compliance with this title...”

In addition, section 1401(1)(d) of the SDWA 1986 Amendments defines NPDWRs to include “criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including accepted methods for quality control and testing procedures...” This section authorizes EPA to require systems and laboratories to use Agency-approved methods and quality assurance criteria for collecting and analyzing water samples.

Figure 1. Structure of OGWDW ICRs

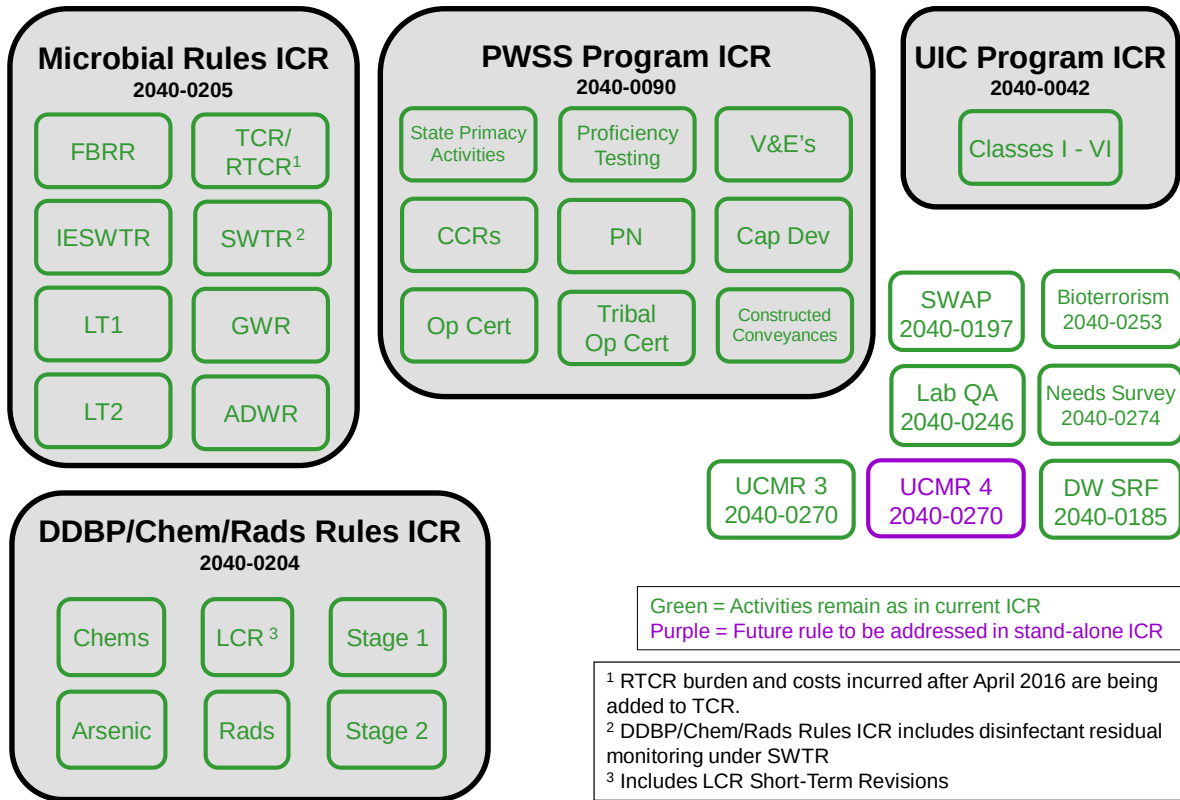


Exhibit 1: Structure of OGWDW ICRs

Currently covered	To be covered in the future
PWSS Program ICR (2040-0090)	
Consumer Confidence Reports (CCRs)	
Variances & Exemptions	
Capacity Development Program	
General State Primacy Activities	
Public Notification (PN)	
Operator Certification Program	
Tribal Operator Certification	
Constructed Conveyances	
Proficiency Testing	
Microbial Rules ICR (2040-0205)	
Surface Water Treatment Rule, except disinfectant residual monitoring and associated activities ³	
Total Coliform Rule/ Revised Total Coliform Rule	
Interim Enhanced Surface Water Treatment Rule (IESWTR)	
Filter Backwash Recycling Rule	
Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)	
Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)	
Ground Water Rule	
Aircraft Drinking Water Rule	
Disinfectants/Disinfection Byproducts, Chemical, and Radionuclides Rules ICR (2040-0204)	
Stage 1 Disinfectants and Disinfection Byproducts Rule	Lead and Copper Rule Long Term Revisions
Disinfectant Residual Monitoring and associated activities under the SWTR	
Stage 2 Disinfectants and Disinfection Byproducts Rule	
Chemical Phase Rules	
Radionuclides Rule	
Arsenic Rule	
Lead and Copper Rule	
Source Water Assessment Program (SWAP) ICR (2040-0197)	
SWAP	
Underground Injection Control (UIC) Program ICR (2040-0042)	
UIC Base Program Activities	
Classes I-VI Rules	
Florida Class I Rule	
Drinking Water State Revolving Fund (DWSRF) Program ICR (2040-0185)	

³ Disinfectant residual monitoring and associated activities are included in the DDBP/Chem/Rads Rules ICR.

Currently covered	To be covered in the future
Drinking Water State Revolving Fund Program	
Drinking Water Infrastructure Needs Survey ICR (2040-0274)	
Drinking Water Infrastructure Needs Survey	
Title VI of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002: Drinking Water Security and Safety ICR (2040-0253)	
Vulnerability Assessments and Emergency Response Plans for community water systems (CWSs).	
Unregulated Contaminant Monitoring Rule ICR (2040-0270)	
Monitoring of Unregulated Contaminants (UCMR 3)	UCMR 4
Laboratory Quality Assurance Evaluation Program for Analysis of Cryptosporidium ICR (2040-0246)	
Proficiency Testing Program for Laboratories Analyzing Cryptosporidium Samples	

To implement its compliance oversight and enforcement responsibilities under the SDWA, EPA requires PWSs to monitor for various drinking water contaminants. The results of this monitoring must be reported to primacy agencies, which in turn report a specified subset of this information in SDWIS. Additionally, both PWSs and primacy agencies must maintain records of analytic results and other related activities (e.g., sanitary survey results). Without comprehensive, up-to-date information on drinking water contaminants (as provided by SDWIS), EPA would not be able to implement the national drinking water program. . If these monitoring requirements were voluntary, EPA would not receive timely, comprehensive data on contaminant levels and associated acute and long-term public health risks. Specifically, voluntary monitoring would not:

- Reliably occur with sufficient frequency.
- Follow uniform national standards on quality of sampling, collection, and analysis.
- Ensure that monitoring addresses all contaminants listed in the regulations.

Additionally, EPA uses SDWIS data to estimate the costs of new regulations and to conduct economic and policy analyses that promote cost-effective regulatory approaches. These uses are discussed in more detail in section 2(b) below.

Section 4 of the ICR contains a summary of the major types of chemical contaminant recordkeeping and reporting requirements, as mandated by 40 CFR Parts 141 and 142. Specifically, most reporting required by PWSs can be found in 40 CFR 141.31, 141.34, and 141.35.

Most recordkeeping requirements for PWSs are codified in 40 CFR 141.33, which requires that the results of chemical analyses be kept for a period of at least 10 years. Reporting and recordkeeping required by states can be found in 40 CFR 142.15 and 142.14, respectively.

2(b) Uses/Users of the Data

2(b)(i) Uses of the Data

Primary users of the data collected under this ICR are EPA, PWS managers, and primacy agencies, which include state regulators and Indian Tribes. This section contains more information about how chemical-related data are used specifically for analytical monitoring, regulatory enforcement, oversight of state programs, implementation assistance, economic and policy analyses, and other Agency and public data evaluations. Each of these functions is discussed in greater detail below.

Analytical Monitoring

PWSs maintain records on the analytical results of monitoring and use these data to:

- Evaluate the quality of water delivered to customers.
- Examine treatment efficacy.
- Determine compliance with national standards.
- Modify monitoring frequencies, schedules, and variances to address potential health risks.
- Alert the public, when the system is not in compliance with federal and state regulations so that they may take actions to minimize exposure to potentially harmful drinking water contaminants.⁴

Quarterly and annual reports that primacy agencies must submit to EPA include PWS information, enforcement information and analytical results for certain violations of the NPDWRs. This reporting is required to establish primacy and maintain eligibility for grants. All of this information is stored in SDWIS, which supports overall maintenance and retrieval of information.

Regulatory Enforcement

Using SDWIS, system-level compliance data may be compared from year to year and trends in compliance data can be evaluated at the system, state, and national program levels. Primacy agencies are responsible for enforcement activities and can use SDWIS data to track compliance progress in their jurisdictions, to identify enforcement targets and remedial actions, and to monitor progress of capacity development strategies. The primacy agency must also track enforcement actions issued against each PWS not in compliance with drinking water standards and evaluate the system's status in meeting schedules designed to return the PWS to compliance.

⁴ The burden associated with implementing the public notification requirements is currently addressed in the PWSS Program ICR (OMB No. 2040-0090).

On a quarterly basis, EPA uses the Enforcement Tracking Tool (ETT) to generate a list of PWSs that are considered “priority systems” for enforcement. The Enforcement Response Policy (ERP) and ETT prioritize and direct enforcement response to systems with the most systemic noncompliance by considering all violations incurred by a system in a comprehensive way. If a state has failed to take timely and appropriate action, EPA may become directly involved in enforcement by issuing an administrative order. If the system does not comply with the order, EPA may seek an administrative penalty or court action.

Oversight of State Programs

State reporting is a condition for maintaining primacy. Primacy agencies play a crucial role in implementing the SDWA, and EPA is charged with overseeing the performance of these states. EPA uses SDWIS data to develop summary statistics on individual state performance.

Implementation Assistance

EPA and primacy agencies also use the data collected to assist small systems in implementing SDWA requirements, including developing variances and exemptions and evaluating PWS capacity. If a PWS is unable to meet standard requirements due to source water quality or affordability concerns, a variance or exemption may be issued to allow the system to comply with slightly different drinking water standards or implementation schedules that are still protective of public health. Capacity development is a state program designed to help all drinking water systems, particularly small systems, enhance their technical, managerial and /or financial capacity to achieve or maintain their compliance with drinking water regulations.

Economic and Policy Analyses

SDWIS data are used in the development of economic analyses for proposed regulations or revisions of existing regulations. The data help to determine a system’s susceptibility and vulnerability to contaminants. Data are also used by OGWDW to conduct analyses used in developing new policies, regulations, and guidance documents. When analyzing economic or financial impacts on the public water systems or consumers, EPA uses compliance data from SDWIS, together with other national survey data, to estimate the number of systems that would have to install treatment technologies or apply contamination reduction measures to reduce public health risks. Without such data, EPA would be unable to predict costs and benefits that systems would incur under new or revised regulations.

2(b)(ii) Users of the Data

The information collected by EPA is made available to the public upon request, via EPA’s public website (<http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/pivottables.cfm>) or by requesting the data via the Freedom of Information Act (40 CFR, Chapter 1, Part 2). Other organizations that utilize the data include:

- Staff from other EPA programs (such as Superfund, the Resource Conservation and Recovery Act, and the Office of Enforcement and Compliance (OECA))

- The Federal Emergency Management Administration
- Centers for Disease Control and Prevention (CDC)
- Military bases
- Farmers Home Administration
- Department of Interior
- Department of Housing and Urban Development
- U.S. Army Corps of Engineers
- White House Task Forces
- American Water Works Association (AWWA)
- Association of Metropolitan Water Agencies (AMWA)
- National Rural Water Association (NRWA)
- National Association of Water Companies (NAWC)
- Association of State Drinking Water Administrators (ASDWA)
- Natural Resources Defense Council (NRDC)

3 NON-DUPLICATION, CONSULTATIONS, AND OTHER COLLECTION CRITERIA

3(a) Non-duplication

EPA has made an effort to ensure that the data collection efforts associated with this ICR are not duplicated. EPA has consulted state environmental programs, other federal agencies, and regulated entities, such as PWSs and their representative trade associations. To the best of EPA's knowledge, data currently required by the SDWA and its drinking water regulations, codified at 40 CFR Parts 141 and 142, are not available from any other source.

3(b) Public Notice Required Prior to ICR Submission to OMB

To comply with the 1995 Amendments to the PRA, EPA solicited public comment on this ICR for a 60-day period before it was submitted to OMB (80 CFR 17040, March 31, 2015). Specifically, EPA published a notice in the Federal Register (FR) requesting comment on the estimated respondent burden and other aspects of this ICR (Appendix A). EPA did not receive any comments during the 60-day comment period.

An additional FR notice will be published prior to submission of this ICR to OMB. The public comment period for this additional notice is 30 days.

3(c) Consultations

As part of the revision of the PWSS ICR, in May 2015 EPA consulted with representatives of PWSs and states regarding the accuracy of EPA's burden estimates. The groups consulted were NAWC, NRWA, AWWA, AMWA, and ASDWA. EPA received comments from ASDWA. ASDWA's comments were incorporated into this ICR to the extent possible. The end of each appendix to the ICR contains a table summarizing EPA's previous and revised burden estimates for the relevant rule.

3(d) Effects of Less Frequent Collection

EPA has considered a wide range of alternatives for frequency of data collection. EPA has chosen to require the least frequent collection that remains consistent with the overall goal of protecting public health. If data are collected less frequently, primacy agencies may not identify in a timely fashion significant contaminant concentrations that might threaten the health and safety of drinking water consumers.

For some rules, the primacy agency has discretion in adjusting monitoring schedules, where possible, by granting waivers or reducing the monitoring frequency and/or sites. Monitoring frequencies vary based on the following:

- Type of contaminant.
- Type and size of system.
- System vulnerability.

- Contaminant history.
- Factors contributing to DBP formation.

3(e) General Guidelines

This ICR does not request any exemptions from the general guidelines specified in the Paperwork Reduction Act.

3(f) Confidentiality

No confidential information will be collected as a result of this ICR.

3(g) Sensitive Questions

No information of a sensitive nature will be collected as a result of this ICR.

4 RESPONDENTS AND INFORMATION REQUESTED

4(a) Respondents/NAICS Codes

Data associated with this ICR are collected and maintained at the PWS, state, and federal levels. Respondents include:

- Owners/operators of PWSs, who must report to their primacy agency.
- Primacy agencies, and EPA Regions that act as primacy agencies in Indian lands and states that do not have primacy.

The North American Industry Classification System (NAICS) code for PWSs is 22131. The NAICS codes for state agencies that include drinking water programs are 92411 (Administration of Air and Water Resources and Solid Waste Management Programs) or 92312 (Administration of Public Health Programs). Ancillary systems (i.e., those that supplement the function of other establishments like factories, power plants, mobile home parks, etc.) cannot be categorized in a single NAICS code. For ancillary systems, the NAICS code is that of the primary establishment or industry.

4(b) Information Requested

4(b)(i) Data Items

The data items that respondents will collect in implementing their responsibilities under the chemical-related drinking water regulations included in this ICR are summarized below.

Each PWS is required to report to its primacy agency monitoring results received from laboratories. As required by 40 CFR 141.33, PWSs must either maintain analytical reports or transfer the following information regarding sample results:

- Date, place, and time of sampling.
- Name of the person who collected the sample.
- Identification of the sample as a routine distribution system sample, check sample, raw or process water sample, or other special purpose sample.
- Date of analysis.
- Laboratory and person responsible for performing analysis.
- Contaminants for which the analysis was performed.
- Analytical technique/method used.
- Results of the analysis.

PWSs are required to submit and keep records on additional information such as public education on lead, monitoring plans, waiver applications, and disinfection calculations.

Exhibit 2 further describes the respondent information collection requirements covered by the DDBP/Chem/Rads Rules ICR.

Exhibit 2 PWS Recordkeeping and Reporting Requirements

Requirement	Regulatory Citation	Frequency/ Retention Period
General Requirements (apply to all regulations)		
Reporting		
Except where a different period is specified in an individual drinking water regulation, PWSs are required to submit the following to the state:		
Results of any test measurement or analysis required in 40 CFR Part 141.	40 CFR 141.31(a)	At the end of the required monitoring period
Failure to comply with any NPDWR, including failure to monitor.	40 CFR 141.31(b) and (c)	As necessary, unless state lab performs analysis and reports results to state
Copies of records required to be maintained under 40 CFR 141.33 and/or copies of documents that the state is entitled to under section 1445 of SDWA or state law.	40 CFR 141.31(e)	As requested
Recordkeeping		
Except where a different period is specified in an individual drinking water regulation, PWSs are required to retain the following information:		
Records of bacteriological, or chemical analyses and related information.	40 CFR 141.33(a)	5 years for bacteriological data; 10 years for chemical data
Records of actions taken by the PWS to correct violations of NPDWRs.	40 CFR 141.33(b)	3 years after last action taken related to the violation
Copies of any written reports, summaries, or communications relating to sanitary surveys.	40 CFR 141.33(c)	10 years
Records concerning a variance or exemption granted.	40 CFR 141.33(d)	5 years following the expiration of the variance or exemption
Stage 1 DBPR		
Reporting		
Report to the state specified sampling information (including MCL or MRDL exceedances) about disinfectants, disinfection byproducts (DBPs), and DBP precursors.	40 CFR 141.134(a) through (d)	Quarterly or as necessary for systems sampling less frequently than quarterly
Develop and submit application to state for approval of alternative minimum total organic carbon (TOC) removal levels.	40 CFR 141.135(b)(3)and (4)	As necessary
Develop and submit application to state for approval of waiver of enhanced coagulation requirements.	40 CFR 141.135(b)(4)(v)	One time

Requirement	Regulatory Citation	Frequency/ Retention Period
Stage 2 DBPR		
Reporting		
Develop and submit an Initial Distribution System Evaluation (IDSE) Plan and Report or 40/30 certification or very small system waiver.	40 CFR 141.600	One time
Recordkeeping		
Records of IDSE Reports	40 CFR 141.601(c)(4)	Ten years
Results of operational evaluations to be discussed with states	40 CFR 141.626	Ten years
Chemical Phase Rules (Phases II, IIB, and V)		
Reporting		
Apply to state for asbestos monitoring waiver.	40 CFR 141.23(b)(2) and (4)	Every 3 years, if applicable
Apply to state for inorganic compound (IOC) monitoring waiver.	40 CFR 141.23(c)(2) and (3)	Every 9 years, if applicable
Apply to the state to conduct more frequent IOC monitoring.	40 CFR 141.23(h)	One time, if applicable
Apply to state for volatile organic compounds (VOC) monitoring waiver.	40 CFR 141.24(f)(7) and (10)	Every 6 years or frequency specified by state, if applicable
Apply to state for synthetic organic compound (SOC) monitoring waiver.	40 CFR 141.24(h)(5) and 141.24(h)(7)(iv)	Every 3 years, if applicable
Notify state of MCL exceedances.	40 CFR 141.23(m) through (o)	As necessary
Submit written treatment technique certification to state regarding acrylamide and epichlorohydrin levels.	40 CFR 141.111	Annually, if applicable
Radionuclides		
Reporting		
Notify state of MCL exceedances for contaminants specified in 40 CFR 141.66(b)-(e).	40 CFR 141.26(c)(5)	As necessary
SWTR (only disinfection residual monitoring and associated activities)		
Unfiltered Systems – Reporting		
Disinfection information specified in 40 CFR 141.74(b)	40 CFR 141.75(a)(2)	Within 10 days after the end of each month the system serves water to the public
Filtered Systems - Reporting		
Disinfection information specified in 40 CFR 141.74(c)	40 CFR 141.75(b)(2)	Within 10 days after the end of each month the system serves water to the public
Arsenic Rule		
Subject to general requirements as listed above.		

Requirement	Regulatory Citation	Frequency/ Retention Period
Lead and Copper Rule, Including October 2008 Short Term Revisions		
Reporting		
Report to the state any information required by the treatment provisions in Subpart I (especially 40 CFR 141.90).	40 CFR 141.80(i)	As required
<u>Tap water and water quality parameters (WQP) monitoring requirements</u>		
Water systems that exceed the lead action level must reevaluate lead service lines (LSLs) classified as “replaced” through testing if they resume lead service line replacement (LSLR) programs.	40 CFR 141.84(b) & (c)	As necessary
Allows systems with less than 5 taps to take one sample per tap if approved by state.	40 CFR 141.86 (c) 141.80(c)(3)(v)	One time
Report the specified information for all tap water samples and all WQP samples.	40 CFR 141.90(a)(1)	End of the applicable monitoring period
Provide written documentation to the state identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under 40 CFR 141.86(b)(5).	40 CFR 141.90(a)(2)(i)	As necessary
If the state has waived prior approval of non-first-draw sample sites selected by the system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample.	40 CFR 141.90(a)(2)(ii)	As necessary
For a water system deemed to have optimized corrosion control, a water system subject to reduced monitoring, or a water system subject to a monitoring waiver, send written documentation to the state describing any addition of a new source or any change in water treatment.	40 CFR 141.81(b)(3)(iii);	As necessary
For a water system, prohibit systems that exceed the lead action level from initiating or remaining on reduced monitoring based solely on results of WQP monitoring	40 CFR 141.86(d)(4)(vi)(B)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
For any small water system applying for a monitoring waiver, provide documentation to the state demonstrating that it meets the waiver criteria.	40 CFR 141.90(a)(4)(i)	As necessary
For each small system desiring to maintain its monitoring waiver, provide written information to the state.	40 CFR 141.90(a)(4)(ii)	Every 9 years
For each small system with a monitoring waiver, provide written notification to the state if the system is no longer free of lead-containing or copper-containing materials.	40 CFR 141.90(a)(4)(iii)	As necessary, within 60 days after becoming aware of change
For each ground water system that limits WQP monitoring to a subset of entry points, provide written correspondence to the state that identifies selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.	40 CFR 141.90(a)(5)	One time, as necessary
Provide the specified information to the state if the state calculates the 90th percentile concentrations.	40 CFR 141.90(h)(2)	End of monitoring period
<u>Source water monitoring reporting requirements</u>		
Report the sampling results for all source water samples collected in accordance with 40 CFR 141.88.	40 CFR 141.90(b)(1)	End of monitoring period
Specify any site which was not sampled during the previous monitoring period and explain why the sampling point has changed.	40 CFR 141.90(b)(2)	As necessary, end of monitoring period
<u>Corrosion control treatment reporting requirements</u>		
For systems demonstrating optimized corrosion control, provide the state information demonstrating that the PWS has conducted activities equivalent to the applicable corrosion control steps.	40 CFR 141.81(b)(2), 141.90(c)(1)	One time, as necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
For systems demonstrating optimized corrosion control, submit results of tap water monitoring and source water monitoring.	40 CFR 141.81(b)(3)	As necessary
For systems deemed to have optimized corrosion control, notify the state in writing <i>prior</i> to any change in treatment or of the addition of a new source.	40 CFR 141.81(b)(3)(iii) 141.86(d)(4)(vii); 141.86(g)(4)(iii); 141.90(a)(3)	As necessary
Submit monitoring results that show two consecutive monitoring periods that meet both lead and copper action levels.	40 CFR 141.81(c)	As necessary
Request in writing a modification of optimal CCT.	40 CFR 141.82(h)	As necessary
For systems required to evaluate the effectiveness of CCTs, report the information required by 40 CFR 141.82(c).	40 CFR 141.90(c)(3)	As necessary
For systems required to install optimal corrosion control, submit a letter certifying that the system has completed installation.	40 CFR 141.90(c)(4)	As necessary
<u>Source water treatment reporting requirements</u>		
Provide to the state a recommendation regarding source water treatment.	40 CFR 141.83(a)(1), 40 CFR 141.83(b)(1), 40 CFR 141.90(d)(1)	As necessary, within 6 months of exceeding action level
Request in writing a modification of source water treatment or maximum permissible lead and copper concentrations.	40 CFR 141.83(b)(6)	As necessary
For systems required to install source water treatment, submit a letter certifying that the system has completed installation of the designated treatment.	40 CFR 141.90(d)(2)	As necessary, within 24 months after state designates treatment
<u>Public education program reporting requirements</u>		
Deliver written public education materials if a water system exceeds the lead action level based on tap water samples.	40 CFR 141.85(a) & (c)	As necessary, timing varies by type of system
Broadcast public service announcements if a CWS exceeds the lead action level based on tap water samples.	40 CFR 141.85(b) & (c)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
Water systems that exceed the lead action level must provide information to additional at-risk populations and must conduct specified public education activities. Water systems must include a statement on lead in their CCR. Water systems certify to state that activities have been conducted.	40 CFR 141.85(a) & (b);141.154	As necessary
Apply to the state in writing to alter specified public education language (CWSs only).	40 CFR 141.85(c)(7)	As necessary
Water systems must provide consumers who occupy homes or buildings that are part of the utility's monitoring program, with testing results when their drinking water is tested for lead and copper. Water systems certify to state that results have been distributed.	40 CFR 141.80(g); 141.85(d); 141.90(f)(3)	As necessary
For any water system that is subject to public education requirements, send written documentation to the state that contains specified information.	40 CFR 141.90(f)(1)	As necessary; end of each public education period

Primacy agencies review and maintain records on monitoring results, approve monitoring plans, waivers, treatment changes, public education, and other documents submitted by PWSs. Primacy agencies report compliance and enforcement data to EPA, and apply to EPA for primacy to implement new drinking water regulations. Reporting and recordkeeping requirements for states are described in more detail in Exhibit 3.

Exhibit 3 Primacy Agency Recordkeeping and Reporting Requirements

Requirement	Regulatory Citation	Frequency/Retention Period
General Requirements (apply to all regulations)		
Reporting		
Submit reports to the Administrator containing new violations by PWS and new enforcement actions by states that occurred during the previous quarter.	40 CFR 142.15(a)(1) and (2)	Quarterly

Requirement	Regulatory Citation	Frequency/Retention Period
Recordkeeping		
Maintain records of tests, measurements, analyses, decisions, and determinations performed on each PWS to determine compliance with applicable provisions of state primary drinking water regulations.	40 CFR 142.14(a)	Varies
Retain files, which shall include for each PWS in the state, records of any state approvals and records of any enforcement actions.	40 CFR 142.14(d)(2) and (3)	12 years
Stage 1 DBPR		
Reporting		
Review and make determination regarding approval of application for use of alternative minimum TOC removal levels.	40 CFR 141.135(b)(1)	As necessary
Review and make determination regarding application for approval of waiver of enhanced coagulation requirements.	40 CFR 141.135(b)(4)(v)	One time, as necessary
Recordkeeping		
Records of the currently applicable or most recent state determinations, including all supporting information and an explanation of the technical basis for each decision, made under the following provisions of 40 CFR Part 141, Subpart L for the control of disinfectants and DBPs.	40 CFR 142.14(d)(12)	12 years
Records of systems that are installing granular activated carbon or membrane technology.	40 CFR 142.14(d)(12)(i)	12 years
Records of systems that are required, by the state, to meet alternative minimum TOC removal requirements or for whom the state has determined that the source water is not amenable to enhanced coagulation.	40 CFR 142.14(d)(12)(ii)	12 years
Records of Subpart H systems using conventional treatment meeting any of the alternative compliance criteria.	40 CFR 142.14(d)(12)(iii)	12 years
A register of qualified operators that have met the state requirements.	40 CFR 142.14(d)(12)(iv)	12 years

Requirement	Regulatory Citation	Frequency/Retention Period
Records of systems with multiple wells considered to be one treatment plant.	40 CFR 142.14(d)(13)	12 years
Monitoring plans for Subpart H systems serving more than 3,300 persons.	40 CFR 142.14(d)(14)	12 years
List of laboratories approved for analyses.	40 CFR 142.14(d)(15)	12 years
List of systems required to monitor for disinfectants and DBPs in accordance with Part 141, Subpart L.	40 CFR 142.14(d)(16)	12 years
Stage 2 DBPR		
Recordkeeping		
1A record of all current monitoring requirements and the most recent monitoring frequency decision pertaining to the contaminant.	40 CFR 142.14(a)(8)	In perpetuity, until replaced or revised
1Records of IDSE monitoring plans submitted by PWSs plus any modifications, until replaced by approved IDSE reports.	40 CFR 142.14(a)(8)(i)	In perpetuity, until replaced or revised
1Records of IDSE reports and 40/30 certifications and any modifications required by the state, until replaced or revised.	40 CFR 142.14(a)(8)(ii)	In perpetuity, until replaced or revised
1Operational evaluations submitted by a system.	40 CFR 142.14(a)(8)(iii)	Ten years
Special Primacy Requirements		
An application for approval of a state program revision that adopts 40 CFR Part 141, Subpart L, must contain a description of how the state will accomplish the program requirements.	40 CFR 142.16(h)	One time
Chemical Phase Rules (Phases II, IIB, and V)		
Reporting		
Make determination regarding asbestos waiver requests.	40 CFR 141.23(b)(3) and (4)	3 years, as necessary
Make determination regarding IOC waiver requests.	40 CFR 141.23(c)(2) through (4)	9 years, as necessary
Make determination regarding VOC waiver.	40 CFR 141.24(f)(7), (8), and (10)	6 years or frequency specified by state, as necessary
Make determination regarding SOC waiver requests.	40 CFR 141.24(h)(5) and (6)	3 years, as necessary

Requirement	Regulatory Citation	Frequency/Retention Period
<i>Recordkeeping</i>		
Records for most recent vulnerability determination, including monitoring results and other data supporting the determination, the state's findings, and any additional bases for such determination.	40 CFR 142.14(d)(4)	In perpetuity or until more current vulnerability determination has been issued
Records of all current monitoring requirements and most recent monitoring frequency decision pertaining to each contaminant, including the monitoring results and other data supporting the decision, the state's findings, and any additional bases for such decision.	40 CFR 142.14(d)(5)	In perpetuity or until a more recent monitoring frequency decision has been issued
Records of most recent asbestos repeat monitoring determination, including monitoring results and other data supporting the determination, the state's findings, and any additional bases for the determination and the repeat monitoring frequency.	40 CFR 142.14(d)(6)	In perpetuity or until more current repeat monitoring determination has been issued
Records of annual certifications received from systems pursuant to Part 141, Subpart K demonstrating the system's compliance with the treatment techniques for acrylamide and/or epichlorohydrin.	40 CFR 142.14(d)(7)	12 years
<i>Radionuclides</i>		
<i>Reporting</i>		
Evaluate and draft written response for a system request to use historical monitoring data.	40 CFR 141.26(a)(2)(ii)(C)	As necessary
Determine whether to designate a system as vulnerable and notify system of the determination.	40 CFR 141.26(b)(1)	As necessary
Designate system using waters contaminated by nuclear facility effluent and notify system of determination.	40 CFR 141.26(b)(2)	As necessary
<i>Recordkeeping</i>		
Subject to general requirements as listed above.		
<i>SWTR (only disinfection residual monitoring and associated activities)</i>		
<i>Reporting</i>		
Subject to general requirements as listed above		

Requirement	Regulatory Citation	Frequency/Retention Period
Recordkeeping		
Records of disinfectant residual measurements and other parameters necessary to document disinfection effectiveness.	40 CFR 142.14(a)(4)(i)	1 year
Records of decisions to allow an unfiltered or filtered PWS to sample residual disinfectant concentration at alternate locations if it also has ground water source(s).	40 CFR 142.14(a)(4)(ii)(A)(4) and (6)	40 years, or 1 year after decision is reversed or revised
Records of any decision that a violation of monthly contact time (CT) compliance requirements was caused by circumstances that were unusual and unpredictable.	40 CFR 142.14(a)(4)(ii)(B)(1)	1 year
Records of any decision that a violation of the disinfection effectiveness criteria was not caused by a deficiency in treatment of the source water.	40 CFR 142.14(a)(4)(ii)(B)(2)	1 year
Records of any decision that failure to meet the disinfectant residual concentration requirements of 40 CFR 141.72(a)(3)(i) was caused by circumstances that were unusual and unpredictable. A copy of the decision must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(2)	40 years, unless filtration is installed
Records of decisions that an unfiltered or filtered system has no means for having a sample transported and analyzed for heterotrophic plate count by a certified laboratory under the requisite time and temperature conditions and that the system is providing adequate disinfection in the distribution system, so that the disinfection requirements do not apply, and the basis for the decision. A copy of the decision must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(9) and (10), respectively	Until the decision is reversed or revised

Requirement	Regulatory Citation	Frequency/Retention Period
Records of decisions that a system using a disinfectant other than chlorine may use CT 99.9 values other than those in tables 2.1 or 3.1 and /or other operational parameters to determine if the minimum total inactivation rates are being met. A copy of the decision must be provided to the system.	40 CFR 142.14(a)(4)(ii)(C)(13)	Until the decision is reversed or revised
Arsenic Rule		
Reporting		
Subject to general requirements as listed above		
Recordkeeping		
Subject to general requirements as listed above		
Lead and Copper Rule		
Reporting		
Notify the system after an approval decision has been made in regards to the system's request to add a new source of water or change a treatment process prior to implementation.	40 CFR 141.81(b)(3)(iii); 141.86(d)(4)(vii); 141.86(g)(4)(iii); 141.90(a)(3)	As necessary
Provide written notice to PWSs explaining the basis for determining if the PWS has optimized corrosion control and specifying the water quality control parameters that represent optimal corrosion control.	40 CFR 141.81(b)(2)	As necessary
Notify a system in writing of any determination requiring a system to repeat treatment steps previously completed.	40 CFR 141.81(c)	As necessary
Specify corrosion control studies or optimal CCT (after a small or medium system exceeds the lead or copper action level).	40 CFR 141.81(e)(2)	Within 18 months (medium systems) or 24 months (small systems) of exceedance
Designate optimal CCT (if a small or medium system has performed corrosion control studies).	40 CFR 141.81(e)(4)	As necessary, within 6 months of system completing studies
For small and medium systems, designate optimal WQPs.	40 CFR 141.81(e)(7)	As necessary, within 6 months of system completing follow-up sampling
Notify PWSs in writing of decisions on optimal CCT.	40 CFR 141.82(d)(2)	As necessary
Modify determinations of optimal CCT in writing.	40 CFR 141.82(h)	As necessary or as requested

Requirement	Regulatory Citation	Frequency/Retention Period
Notify the system in writing of determinations regarding necessary source water treatment.	40 CFR 141.83(a)(2),141.83(b)(2)	As necessary, within 6 months of submission of monitoring results
Notify the system in writing of designations for maximum permissible source water levels.	40 CFR 141.83(a)(5), 141.83(b)(4)	As necessary within 6 months of completing tap and source water monitoring.
Provide in writing revised source water treatment or maximum permissible lead and copper concentrations along with a basis for the decision and an implementation schedule.	40 CFR 141.83(b)(6)	As necessary or as requested
Review public education materials content and consult on activities. Review and track system certification.	40 CFR 141.85(a)	As necessary
Notify a system in writing if a shorter LSLR schedule is required.	40 CFR 141.84(e)	As necessary, within 6 months after system triggered into LSLR
Review and track system certification regarding distribution of tap samples to individual monitoring locations.	40 CFR 141.80(g); 141.85(d); 141.90(f)(3)	As necessary
Notify the system of approval of non-first-draw sample sites.	40 CFR 141.86(b)(5)	As necessary
If applicable, review system request and approve in writing or by site verification the number of taps for sampling.	40 CFR 141.80(c)(3)(v); 141.86(c)	One time
Specify sampling locations when a system is conducting reduced monitoring.	40 CFR 141.86(c)	As necessary
Notify the system in writing when the state determines that a system is eligible to commence reduced monitoring.	40 CFR 141.86(d)(4)(ii) & (iii)	As necessary
Notify system of alternate period for collecting reduced lead and copper tap samples.	40 CFR 141.86(d)(4)(iv)(B)	As necessary
Document in writing the decision and rationale for invalidating a sample.	40 CFR 141.86(f)(3)	As necessary
Notify the system in writing of its waiver determination and the conditions of the waiver.	40 CFR 141.86(g)(3)	As necessary
Notify a system if its waiver has been revoked.	40 CFR 141.86(g)(5)(iii)	As necessary
Review additional monitoring data and reports from systems that have exceeded the lead action level.	40 CFR 141.86(d)(4)(vi)(B)	As necessary

Requirement	Regulatory Citation	Frequency/Retention Period
Report to EPA the following information related to each system's compliance with lead and copper requirements:		
For each large and medium PWS, all 90th percentile lead levels calculated during each monitoring period, and the first and last day of the monitoring period for which the 90th percentile lead level was calculated.	40 CFR 142.15(c)(4)(iii)(A)	Quarterly
For each small PWS, the 90th percentile lead level calculated during each monitoring period in which the systems exceeds the lead action level, and the first and last day of each monitoring period in which an exceedance occurred.	40 CFR 142.15(c)(4)(iii)(B)	Quarterly
For each PWS, the 90th percentile copper level calculated during each monitoring period in which the system exceeds the copper action level, and the first and last day of each monitoring period in which an exceedance occurred.	40 CFR 142.15(c)(4)(iii)(C)	Quarterly
For each PWS for which the state has designated optimal WQPs or which the state has deemed to have optimized corrosion control, the date of the determination and the paragraph(s) under which the state made its determination.	40 CFR 142.15(c)(4)(iii)(D)	Quarterly
For each PWS required to begin replacing LSLs, the date each system must begin replacement.	40 CFR 142.15(c)(4)(iii)(E)	Quarterly
For each PWS that has implemented optimal corrosion control, completed applicable source water treatment requirements or completed LSLR requirements and the date of the state's determination that these requirements have been met.	40 CFR 142.15(c)(4)(iii)(F)	Quarterly

Requirement	Regulatory Citation	Frequency/Retention Period
Recordkeeping		
Maintain records of currently applicable or most recent state determinations, including all supporting information and explanation of technical basis for each decision.	40 CFR 142.14(d)(8)	12 years
For any system deemed to be optimized, maintain records of any conditions imposed by the state to ensure the continued operation and maintenance of CCT in place.	40 CFR 142.14(d)(8)(i)	12 years
Maintain records of decisions to require a system to conduct CCT studies.	40 CFR 142.14(d)(8)(ii)	12 years
Maintain records of designations of optimal CCT.	40 CFR 142.14(d)(8)(iii)	12 years
Maintain records of designations of optimal WQPs.	40 CFR 142.14(d)(8)(iv)	12 years
Maintain records of decisions to modify a PWS's optimal CCT or WQPs.	40 CFR 142.14(d)(8)(v)	12 years
Maintain records of determinations of source water treatment.	40 CFR 142.14(d)(8)(vi)	12 years
Maintain records of designations of maximum permissible concentrations of lead and copper in source water.	40 CFR 142.14(d)(8)(vii)	12 years
Maintain records of determinations establishing shorter LSLR schedules.	40 CFR 142.14(d)(8)(viii)	12 years
Maintain records of determinations of additional monitoring requirements and/or other actions required to maintain optimal corrosion control by systems monitoring for lead and copper at the tap less frequently than once every six months that change treatment or add a new source of water.	40 CFR 142.14(d)(8)(ix)	12 years
Maintain records of system-specific decisions regarding the content of written public education materials and/or the distribution of these materials.	40 CFR 142.14(d)(8)(x)	12 years

Requirement	Regulatory Citation	Frequency/Retention Period
Maintain records of system-specific determinations regarding use of non-first-draw samples at NTNCWSs and CWSs that operate 24 hours a day.	40 CFR 142.14(d)(8)(xi)	12 years
Maintain records of system-specific designations of sampling locations for systems subject to reduced monitoring.	40 CFR 142.14(d)(8)(xii)	12 years
Maintain records of system-specific determinations pertaining to alternative sample collection periods for systems subject to reduced monitoring.	40 CFR 142.14(d)(8)(xiii)	12 years
Maintain records of determinations of small system monitoring waivers, waiver recertifications, and waiver revocations.	40 CFR 142.14(d)(8)(xiv)	12 years
Maintain records of determinations regarding representative entry point locations at ground water systems.	40 CFR 142.14(d)(8)(xv)	12 years
Maintain records of reports and any other information submitted by PWSs.	40 CFR 142.14(d)(9)	12 years
Maintain records of state activities to verify compliance with state determinations.	40 CFR 142.14(d)(10)(i)	12 years
Maintain records of state activities to verify compliance with the requirements related to partial LSLR and compliance with LSLR schedules.	40 CFR 142.14(d)(10)(ii)	12 years
Maintain records of state activities to invalidate tap water lead and copper samples.	40 CFR 142.14(d)(10)(iii)	12 years
Maintain records of each system's currently applicable or most recently designated monitoring requirements.	40 CFR 142.14(d)(11)	12 years or until a new decision, determination, or designation has been issued

4(b)(ii) Respondent Activities

PWSs and primacy agencies must complete the activities described in the sections below.

Public Water Systems

PWSs are required to monitor for compliance with the MCLs or MRDLs as established in 40 CFR Part 141, Subpart B. Public water system owners and operators are required to report laboratory results to the state at frequencies specified in EPA regulations. In addition, they are required to record, maintain, and report the analytical results of these monitoring efforts in accordance with 40 CFR Part 141, Subparts C and D. General activities carried out by PWSs implementing the regulations addressed in this ICR include:

- Planning activities associated with rule implementation, such as establishing monitoring plans.
- Data collection such as identifying sample sites and collecting samples.
- Analyzing samples collected.
- Processing, compiling, and reviewing information created.
- Developing and distributing reports and other documents.
- Recording and maintaining the information.

Specific activities are described in Exhibit 2.

Primacy Agencies

States are currently required to maintain records of state verification activities and each determination made and to report to EPA through SDWIS in accordance with state reporting requirements (section 142.14). Primacy agencies ensure the implementation of the rules covered by this ICR. To meet their responsibilities, the primacy agencies conduct the following activities:⁵

- Coordinate with EPA.
- Notify systems of requirements.
- Make compliance determinations.
- Provide training and technical assistance to PWSs.
- Maintain data management systems.
- Establish the monitoring schedules.
- Review plans and specifications.
- Enter monitoring and enforcement data.
- Keep records and supporting information, including state determinations and explanations for technical decisions regarding rule implementation.

Following is a detailed description of monitoring and other data collection and reporting requirements for each of the drinking water rules included in this ICR (see also Exhibit 3).

⁵ Some of the general activities conducted by states are included in the PWSS Program ICR (OMB 2040-0090).

1) Stage 1 Disinfectants and Disinfection Byproducts Rule

The Stage 1 DBPR applies primarily to community water systems (CWSs) and nontransient noncommunity water systems (NTNCWSs) that add a chemical disinfectant anywhere in the treatment process. Transient noncommunity water systems (TNCWSs) that add a disinfectant are subject to requirements on chlorine dioxide only. The regulation establishes:

- MCL for total trihalomethanes (TTHMs) (40 CFR 141.64).
- MCLs for haloacetic acids (HAA5), bromate, and chlorite (40 CFR 141.64).
- MRDLs for chlorine, chloramines, and chlorine dioxide (40 CFR 141.65).
- Treatment techniques for DBP precursors (40 CFR 141.135).
- Best Available Technologies (BATs) for controlling DBPs and disinfectants (40 CFR 141.64 and 141.65, respectively).

The information collection requirements necessary to comply with these requirements include monitoring, reporting, and recordkeeping. Public water systems must report the number of samples and the sampling site, date, and results of each sample taken in the last monitoring period. For many of the DBPs and disinfectants, systems must also calculate the running annual average of sample results to determine compliance with the MCL or MRDL. All systems are required to conduct compliance monitoring in this ICR period. The Stage 2 DBPR modified how compliance with the MCLs for TTHM and HAA5 is calculated. For public water systems that take samples at more than one sampling site, the MCL is now calculated based on a running annual average at each sampling location rather than by averaging the sampling results at different locations. Other Stage 1 DBPR requirements remain unchanged.

MAXIMUM CONTAMINANT LEVELS (MCLs)

TTHM and HAA5 MCLs

(a) Small Subpart H⁶ Systems Serving Fewer Than 500 People

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take one sample per plant per year for both TTHM and HAA5.
- **Reduced Monitoring (40 CFR 141.132).** No reduced monitoring is allowed.
- **Compliance Requirements (40 CFR 141.133).** If the average of samples taken during the year exceeds the MCL, the system must increase monitoring to one sample per plant per quarter. Compliance with the MCL is based on an annual arithmetic average.

⁶ Subpart H systems include all PWSs using surface water or ground water under the direct influence of surface water as a source (40 CFR 141.2).

(b) Small Subpart H Systems Serving 500-9,999 People

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take one sample per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (40 CFR 141.132).** Systems with annual average TTHM < 0.040 mg/L and HAA5 < 0.030 mg/L and source water TOC < 4.0 mg/L prior to treatment may reduce monitoring to one sample per plant per year. If a system exceeds 0.060 mg/L or 0.045 mg/L for TTHM or HAA5 respectively, it must revert to routine monitoring.

(c) Large Subpart H Systems Serving at Least 10,000 People

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take four samples per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (40 CFR 141.132).** Systems with annual average TTHM < 0.040 mg/L and HAA5 < 0.030 mg/L and source water TOC < 4.0 mg/L prior to treatment may reduce samples to one sample per plant per quarter. If a system exceeds 0.060 mg/L or 0.045 mg/L for TTHM or HAA5 respectively, it must revert to routine monitoring.

(d) Small Ground Water Systems Serving Fewer Than 10,000 People

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take one sample per plant per year for both TTHM and HAA5.
- **Reduced Monitoring (40 CFR 141.132).** Systems with annual average TTHM < 0.040 mg/L and HAA5 < 0.030 mg/L for 2 consecutive years or TTHM < 0.020 / HAA5 < 0.015 for one year may reduce samples to one sample per plant per three-year monitoring cycle.
- **Compliance Requirements (40 CFR 141.133).** If the average of samples taken during the year exceeds the MCL, the system must increase monitoring to one sample per plant per quarter. Compliance with the MCL is based on an annual arithmetic average.

(e) Large Ground Water Systems Serving at Least 10,000 People

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take one sample per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (40 CFR 141.132).** Systems with annual average TTHM < 0.040 mg/L and HAA5 < 0.030 mg/L may reduce samples to one sample per plant per year. If a system exceeds 0.060 mg/L or 0.045 mg/L for TTHM or HAA5 respectively, it must revert to routine monitoring.

Chlorite MCL

Chlorite is an inorganic DBP formed when drinking water is treated with chlorine dioxide. The MCL for chlorite is 1.0 mg/L. CWSs and NTNCWSs that use chlorine dioxide must conduct chlorite monitoring.

- **Routine Daily Monitoring (40 CFR 141.132).** Systems must take daily samples at the entrance to the distribution system. If any sample exceeds the MCL, the system must take additional samples the following day at the following three locations: as close as possible to the first customer; a location representative of average residence time; and a location reflecting the maximum residence time.
- **Routine Monthly Monitoring (40 CFR 141.132).** Each month, systems must take one sample at each of the three following distribution system locations: near the first customer, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system.
- **Reduced Monthly Monitoring (40 CFR 141.132).** After one year of routine monitoring, systems may reduce to one 3-sample set per quarter if the MCL has not been exceeded during that year by any individual sample and the system has not been required to take any follow-up samples. A system may remain on reduced monitoring if all three of the individual chlorite samples do not exceed the MCL. If a system conducting reduced monitoring exceeds the MCL and the daily sample does not exceed the MCL, it must revert to routine monitoring.

Bromate MCL

Bromate is one of the principal byproducts of ozonation in source water containing bromide. The MCL for bromate is 0.010 mg/L. CWSs and NTNCWSs that use ozone for disinfection or oxidation must conduct bromate monitoring.

- **Routine Monitoring (40 CFR 141.132).** Systems must take one sample per month for each plant using ozone at the entrance to the distribution system while the ozonation system is in operation.
- **Reduced Monitoring (40 CFR 141.132).** A system may take one sample per plant per quarter if its annual average source water bromide concentration is less than 0.05 mg/L, based on a monthly measurement. If the running annual average bromide concentration is >0.05 mg/L, the system must conduct routine monitoring. The system must continue to monitor for bromide to remain on reduced bromate monitoring.

MAXIMUM RESIDUAL DISINFECTANT LEVELS (MRDLs)

Disinfectants are added during water treatment to control waterborne microbial contaminants. Some residual disinfectants will remain in water after treatment. Setting MRDLs protects public health by limiting the level of residual disinfectant in drinking water while ensuring sufficient disinfectant remains in the drinking water to protect against waterborne microbial contaminants.

Chlorine and Chloramines MRDLs

Chlorine is a widely used disinfectant. The MRDL for chlorine is 4.0 mg/L. Chloramines are formed when ammonia is added during chlorination to suppress formation of many byproducts. The MRDL for chloramines is 4.0 mg/L (measured as Cl₂).

- **Routine Monitoring (40 CFR 141.132).** CWSs and NTNCWSs must take samples for the residual disinfectant levels at the same points in the distribution system and at the same time as total coliform samples.

Chlorine Dioxide MRDL

Chlorine dioxide is used primarily for the oxidation of taste- and odor-causing organic compounds in water. About 60 to 70 percent of the chlorine dioxide is converted to chlorite in the treatment process. This provision applies to CWSs, NTNCWSs, and TNCWSs.

- **Routine Monitoring (40 CFR 141.132).** Systems must take a daily sample at the entrance to the distribution system. If any sample exceeds the MRDL, the system must take three additional samples the following day in the distribution system.

DBP PRECURSORS

Subpart H systems employing conventional filtration must monitor for TOC and alkalinity in their source and finished water. These samples determine treatment technique requirements.

- **Routine Monitoring (40 CFR 141.132).** Systems must take one paired sample per month of TOC in source water and treated water. These samples must be taken simultaneously. Additionally, systems must take one alkalinity sample per month at the same time as the source water TOC sample.
- **Reduced Monitoring (40 CFR 141.132).** Systems may take one paired sample per quarter if their average treated water TOC is less than 2.0 mg/L for two consecutive years or less than 1.0 mg/L for one year. The alkalinity sample is taken at the same time. If the average treated water TOC in these systems is > 2.0 mg/L, the public water system must conduct routine monitoring.

MONITORING PLANS

Under the Stage 1 DBPR, each public water system was required to develop a monitoring plan (40 CFR 141.132), and have the plan readily available to the public and the state. The state may require changes in any element of the system's monitoring plan.

- 2) *Stage 2 Disinfectants and Disinfectant Byproducts Rule*

The Stage 2 DBPR builds on the 1998 Stage 1 DBPR by requiring reduced levels of disinfectant byproducts (DBPs) in distribution systems. The Stage 2 DBPR is designed to reduce DBP occurrence peaks in the distribution system. The numerical MCLs for the Stage 2 DBPR are the same as for the Stage 1 DBPR MCLs. In Stage 2 DBPR, the TTHM and HAA5 MCLs compliance is determined at each monitoring location, while Stage 1 DBPR requires a system to average results over all monitoring locations.

Each rule activity is described below. Implementation activities and IDSEs, along with Stage 2 monitoring plans, were completed during previous ICR periods.

Systems

Most PWSs will be involved in the following collection activities:

Additional Routine Monitoring

Under Stage 2 DBPR, public water systems determined the number of samples and the locations of the sampling sites to comply with the regulation. In some cases, the number of samples and locations remained the same as in Stage 1 DBPR. These activities continue during this ICR period and are based on the monitoring plan submitted during a previous ICR period. The compliance date varies based on system size and other factors. Systems activities are included below:

- Conduct additional routine monitoring.
- Determine if provisions for reduced monitoring are satisfied.
- Determine if increased monitoring is required.

Operational Evaluations

A system exceeds an operational evaluation level at any monitoring location when the sum of the two previous quarters' compliance monitoring results plus twice the current quarter's result at one location, divided by 4, exceeds 80 µg/L for TTHM or 60 µg/L for HAA5. If an operational evaluation level is exceeded, systems must:

- Conduct an operational evaluation.
- Submit a written report to the state no later than 90 days after being notified of the analytical result that resulted in the operational evaluation level exceedances.

States

State officials serve as respondents when reporting compliance data to EPA. States are currently required to maintain records of verification activities and each determination made and report to EPA through SDWIS.

States are anticipated to be involved in several activities as described below. Note that state review of IDSE reports and proposed monitoring plans was completed during a previous ICR period.

Additional Routine Monitoring

- Review and evaluate monitoring data submitted by systems.

Operational Evaluations

- Review operational evaluations from systems.

Recordkeeping

In addition to existing recordkeeping requirements, states must follow Stage 2 DBPR specific recordkeeping requirements in section 142.14(a)(8) which include:

- Any decisions made pursuant to IDSE and Stage 2 DBPR site requirements, until replaced or revised.
- Records of IDSE reports and 40/30 certifications and any modifications required by the state, until replaced or revised.
- Operational evaluations submitted by a system, for 10 years following submission.

3) Chemical Phase Rules

The chemical monitoring requirements apply only to CWSs and NTNCWSs, except that TNCWSs must sample for nitrate and nitrite. Monitoring requirements follow the standardized monitoring framework (SMF) schedule established by the rule. Under the SMF, 9-year compliance cycles were established; the first cycle lasted from January 1, 1993 to December 31, 2001; the second cycle began on January 1, 2002, and ends on December 31, 2010; and the third cycle began January 1, 2011 and will end December 31, 2019. Each nine-year cycle consists of three, 3-year compliance periods (e.g., from January 1, 2011, to December 31, 2013; from January 1, 2014, to December 31, 2016; and from January 1, 2017, to December 31, 2019).

The compounds and contaminants addressed by the Chemical Phase Rules are listed in Exhibit 4. A more detailed description of the monitoring requirements for inorganic compounds (IOCs), volatile organic compounds (VOCs), and synthetic organic compounds (SOCs) follows.

Exhibit 4 Regulated Organic Compounds and Inorganic Chemicals

Phase of Regulation	Inorganic Chemicals	Synthetic Organic Compounds	Volatile Organic Compounds
Phase I ⁷	N/A	N/A	Benzene Carbon tetrachloride p-Dichlorobenzene Trichloroethylene Vinyl Chloride 1,1,1-Trichloroethane 1,1-Dichloroethylene 1,2-Dichloroethane
Phase II	Asbestos Cadmium Chromium Fluoride Mercury Nitrate Nitrite Selenium	Alachlor Atrazine Carbofuran Chlordane Ethylene dibromide DBCP Heptachlor Heptachlor epoxide Lindane Methoxychlor Toxaphene Polychlorinated biphenyl 2,4-D 2,4,5-TP (Silvex)	cis-1,2-Dichloroethylene Ethylbenzene Monochlorobenzene o-Dichlorobenzene Styrene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene Xylenes 1,2-Dichloropropane
Phase IIB	Barium	Pentachlorophenol	N/A
Phase V	Antimony Beryllium Cyanide Nickel (remanded) Thallium	Benzo(a)pyrene Dalapon Di(2-ethylhexyl)-adipate Di(2-ethylhexyl)-phthalate Dinoseb Diquat Endothall Endrin Glyphosate Hexachlorobenzene Hexachlorocyclopentadiene Oxamyl Picloram Simazine 2,3,7,8-TCDD (Dioxin)	Dichloromethane 1,1,2-Trichloroethane 1,2,4-Trichlorobenzene
Arsenic Rule	Arsenic	NA	NA

⁷ The Phase I rule contaminants were included for completeness. However, the Phase II rule superseded the Phase I rule. Some of the Phase I unregulated contaminants became regulated under Phase II and additional contaminants were added to the list of unregulated contaminants.

INORGANIC CHEMICALS

This section summarizes the IOC monitoring requirements for the last year of the second 3-year compliance period and the first two years of the third 3-year compliance period of the third 9-year compliance cycle. The third 9-year compliance cycle began on January 1, 2011, and the third 3-year compliance period begins on January 1, 2017. For the purposes of monitoring requirements, the IOCs regulated under Phases II and IIB are asbestos, barium, cadmium, chromium, fluoride, mercury, nitrite, nitrate, and selenium. The IOCs regulated by Phase V are antimony, beryllium, cyanide, and thallium. The MCL for nickel, which was initially included as part of Phase V, was remanded on February 9, 1995. This means that, while many water suppliers continue to monitor nickel levels in their water, there is currently no EPA legal limit on the amount of nickel in drinking water. Arsenic was regulated under the 1976 standards for IOCs but is now addressed separately in the Arsenic Rule.

During each 3-year compliance period, ground water systems must take one sample at each sampling point. Surface water systems must take one sample annually at each sampling point. If results from any sampling events are above the MCL, the PWS must begin quarterly sampling during the next calendar quarter. The PWS must continue quarterly sampling until the state determines that the samples are reliably and consistently below the MCL based on at least two consecutive quarterly samples for ground water systems and four consecutive quarters for surface water systems. Once the samples are reliably and consistently below the MCL, ground water systems are then required to sample triennially, and surface water systems must sample annually.

After three consecutive sampling rounds in which sampling results are below the MCL, a PWS may apply to the state for a waiver. Should the state grant a waiver, the PWS is required to sample only once every nine years. IOC waivers must be renewed every nine years.

VOLATILE ORGANIC COMPOUNDS

This section summarizes VOC monitoring requirements for most of the third 3-year compliance period of the third compliance cycle, as described in 40 CFR 141.24(f).

For VOCs, surface water systems must take one sample annually at each sampling point. During each three-year compliance period, ground water systems must take one sample at each sampling point (after initially sampling annually). If any sample exceeds the method detection limit (MDL) of 0.0005 mg/l, the PWS must begin quarterly monitoring during the next calendar quarter. Quarterly sampling must continue until the state determines that the samples are reliably and consistently below the MCL based on at least two consecutive quarterly samples for ground water systems and four consecutive quarters for surface water systems. However, if the detection that triggered the increased sampling exceeds the MCL, the PWS must take a minimum of four consecutive quarterly samples, regardless of whether it is served by ground water or surface water. Once the samples are reliably and consistently below the MCL, the state may reduce the sampling frequency to once per year, provided repeat sampling is conducted during the calendar quarter that previously yielded the highest analytical result.

Systems may apply to the state for a waiver after initial monitoring provided VOCs are not detected. The maximum waiver period for ground water sampling points is six years. The initial waiver must be renewed within the first three years of issuance, but subsequent waivers may be renewed at the end of the six-year period. A ground water system must collect one sample within the first compliance period and at least one sample during each six-year waiver period. For surface water systems, the maximum waiver period is three years, but there is no minimum federal sampling frequency. The state determines the sampling schedule for surface water systems with a three-year waiver.

SYNTHETIC ORGANIC COMPOUNDS

This section summarizes the SOC monitoring requirements for most of the third 3-year compliance period of the third compliance cycle, as described in 40 CFR 141.24(h).

Systems serving more than 3,300 people are required to take two SOC samples every three years. For systems that serve fewer than 3,300 people, one sample is required every three years. If a contaminant is detected at any sampling point, the water system must begin quarterly sampling during the next calendar quarter. Quarterly sampling must continue until the state determines that the samples are reliably and consistently below the MCL based on at least two consecutive quarterly samples for ground water systems and four consecutive quarters for surface water systems. However, if the detection that triggered the increased sampling exceeds the MCL, then the PWS must take a minimum of four consecutive quarterly samples, regardless of whether it is served by ground water or surface water. Once the samples are reliably and consistently below the MCL, the state may reduce the sampling frequency to once per year, provided repeat sampling is conducted during the calendar quarter that previously yielded the highest analytical result.

After three years of annual monitoring without SOC detections, systems may apply for a waiver. Waivers are effective for one compliance period (i.e., three years). They must be renewed in each subsequent compliance period, or the system must return to the sampling frequency specified for its size.

4) *Radionuclides Rule*

On December 7, 2000, EPA promulgated a revised radionuclides regulation. The revised rule completely supersedes the requirements established in the original 1976 Rule. The Radionuclides Rule, which is applicable only to CWSs, revised and amended 40 CFR Parts 141 and 142 and:

- Sets an MCLG of zero for all radionuclides.
- Maintains the 1976 gross alpha MCL of 15 PicoCuries per liter (pCi/L) (which includes combined radium-226/-228 and excludes uranium and radon).
- Maintains the 1976 MCL of 5 pCi/L for combined radium-226 and radium-228.
- Maintains the 1976 beta particle and photon radioactivity MCL of 4 millirem per year (mrem/yr).
- Sets an MCL of 30 µg/L for uranium.
- Establishes separate monitoring requirements for radium-226 and radium-228.

- Maintains the beta/photon screening levels set in the 1976 Rule for vulnerable systems (as deemed by the state). Surface water systems serving greater than 100,000 persons will no longer be required to monitor unless they are deemed vulnerable.
- Revises sampling, compliance, and monitoring waivers to SMF at entry points to the distribution system. States have discretion in grandfathering existing distribution system data for determining initial monitoring baselines.

5) *Disinfectant Residual Monitoring and Associated Activities under the SWTR*⁸

As mentioned earlier, the majority of the SWTR requirements, with the exception of disinfectant residual monitoring, are addressed in the Microbial Rules ICR. Specific disinfectant residual monitoring required by the SWTR and covered under this ICR includes:–

- Periodic disinfectant residual monitoring from the distribution system for Subpart H systems. (40 CFR 141.74 (b)(6)(i) for unfiltered systems and 40 CFR 141.74(c)(3)(i) for systems that filter).
- Continuous disinfectant residual monitoring at entry points into the distribution system. (40 CFR 141.74 (b)(5) for unfiltered systems and 40 CFR 141.74(c)(2) for systems that filter).⁹
- Calculation of inactivation ratios for unfiltered systems using CT values (40 CFR 141.74 (b)(3)).¹⁰

6) *Arsenic Rule*

The Arsenic Rule was promulgated January 22, 2001, and requires that CWSs and NTNCWSs follow the SMF. As previously described for the Chemical Phases Rule, the SMF is conducted within the schedule of a 9-year compliance cycle. The compliance cycle is subsequently composed of three, 3-year periods.

Routine Monitoring

Groundwater systems must take a sample at each entry point to the distribution system once every three years; surface water systems must sample at each entry point annually. Triggered monitoring as a result of a violation requires the system to monitor quarterly beginning in the next quarter after the violation has occurred. Only after a system has taken two consecutive groundwater samples or four consecutive surface water samples and the state has determined that the system is “reliably and consistently” below the MCL (40 CFR 141.23(c)(8)) may the system return to routine monitoring.

⁸ Includes only the rule components relating to disinfectant residual monitoring. The remaining SWTR requirements are included in the Microbial Rules ICR.

⁹ Systems that serve 3,300 or fewer people may take grab samples in lieu of providing continuous monitoring.

¹⁰ CT is the product of residual disinfectant concentration (C) in mg/l determined before or at the first customer, and the corresponding disinfectant contact time (T) in minutes. If a PWS applies disinfectants at more than one point prior to the first customer, it must determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or total inactivation ratio.

The rule also allows systems to receive nine-year monitoring waivers. During the waiver period, a system must take a minimum of one sample. To receive a waiver, a system must demonstrate that during the previous three rounds of monitoring all results were less than the MCL and there was adequate source protection. Systems with waivers are expected to reapply during the current ICR period.

7) *Lead and Copper Rule*

CWSs and NTNCWSs are required to comply with the LCR. In general, the LCR requires each of these water systems to undertake the following activities:¹¹

- Plan monitoring and other activities.
- Provide training to appropriate staff and to residents collecting samples.
- Identify appropriate sampling sites and collect samples.
- Review sample data, including the calculation of lead and copper 90th percentile levels.
- Submit to the state monitoring data and any other documents or reports.
- Record and maintain information.

In addition, some systems must submit corrosion control studies, recommend and submit information regarding the completion of CCT or source water treatment installation, conduct public education, or conduct LSL monitoring, notification, and replacement.

The short term revisions to the LCR apply to CWSs and NTNCWSs, as with the LCR. In addition to the LCR requirements, the revisions require systems to undertake the following activities:

- Take additional tap samples for lead if the lead action level of 0.015 mg/L is exceeded.
- Provide revised public education materials according to revised delivery requirements if the lead action level is exceeded, including a statement on lead in the CCR.
- Notify the state before making long term treatment changes.
- Notify customers of results of samples taken at their homes.
- Retest LSLs previously exempted from replacement if the lead action level is exceeded.

¹¹ For existing systems, some of these requirements may not fall within the collection period for this ICR. See Appendix H for detail related to assumptions and burden calculations for these activities.

5 INFORMATION COLLECTED — AGENCY ACTIVITIES, COLLECTION METHODOLOGY, AND INFORMATION MANAGEMENT

5(a) Agency Activities

As part of its supervisory responsibility, EPA maintains SDWIS and evaluates SDWIS data to determine system compliance. EPA personnel also reformat, distribute, and store these data for a number of uses, including responding to Congressional and public inquiries. EPA also oversees the EPA Regional and state programs, provides technical assistance, and develops policies designed to ensure consistent program implementation. EPA officials serve as respondents when testifying to Congress on the PWSS Program or in the courts for enforcement actions.

EPA's requirements are outlined in Exhibit 5 below. Most of the burden and costs for these activities are addressed in the PWSS Program ICR (OMB No. 2040-0090). Section 5(a) of the PWSS Program ICR contains additional detail regarding the activities supported by the collection of SDWIS data described above. Details regarding potential burden and cost reductions in future ICR periods are provided in section 5(b) of the PWSS Program ICR.

EPA will also conduct primacy activities in states, tribes and territories that do not have primacy. Specifically, EPA will be involved in the following activities:

- Mobilization, planning, and implementation.
- Training PWS and consultant staff.
- Analyzing and reviewing PWS data.
- Making determinations concerning PWSs.
- Compliance tracking.
- Recordkeeping.

However, burden and costs for these activities are accounted for under the primacy agency burden (see section 6).

Exhibit 5 EPA Requirements

Requirement	Regulatory Citation	Frequency
General Requirements (apply to all regulations)		
For states and other entities for which the Agency maintains primacy, the Agency must maintain the records and perform the reporting activities required of states.	40 CFR 142.14 and 142.15	As necessary
Review state request for approval of a program revision and notify state of determination regarding request.	40 CFR 142.12(d)(3)	One time, as necessary
Stage 1 DBPR		
Subject to general requirements as listed above.		
Stage 2 DBPR		
Subject to general requirements as listed above.		
Chemical Phase Rules (Phases II, IIB, and V)		
Subject to general requirements as listed above.		
Radionuclides		
Subject to general requirements as listed above.		
SWTR (only disinfectant residual monitoring and associated activities)		
Subject to general requirements as listed above.		
Arsenic Rule		
Subject to general requirements as listed above.		
Lead and Copper Rule		
Subject to general requirements as listed above.		

5(b) Collection Methodology and Management

1 Primacy agencies must report data to EPA on a quarterly basis. These data include any new data and revisions or corrections to existing data. This information is maintained in SDWIS¹², which contains the following:

- Inventory data for each PWS.
- Violations.
- Enforcement actions and some follow-up activity.
- Variances and exemptions (where applicable).

Primacy agencies primarily transmit SDWIS data to EPA electronically. In the District of Columbia, Wyoming, and Indian Lands (except for the Navajo Nation, which has primacy), results of system samples are sent directly to EPA.

¹² The public can access the violation data in SDWIS online at <http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/howtoaccessdata.cfm>.

SDWIS data support a number of rule implementation and program management activities, which promote consistent national program implementation. SDWIS data is used to identify compliance trends with specific regulations, prioritize public water systems that might require training and technical assistance to return to compliance, and provide insights into primacy agency's interpretation of regulations.

All costs for rule-related data management activities are addressed in the PWSS Program ICR (OMB No. 2040-0090). Section 5(b) of the PWSS Program ICR contains additional detail regarding the activities supported by the previously described collection of SDWIS data.

5(c) Small Entity Flexibility

In developing chemical monitoring rules contained in this ICR, EPA considered the requirement of the Small Business Regulatory Enforcement Fairness Act (SBREFA) to minimize the burden of information collections on small entities. Small entities include “small businesses,” “small organizations” and “small government jurisdictions.” These terms are defined below.¹³

- A **small business** is any business that is independently owned and operated and not dominant in its field, as defined by the Small Business Administration regulations under section 3 of the Small Business Act.
- A **small organization** is any non-profit enterprise that is independently owned and operated and not dominant in its field.
- A **small governmental jurisdiction** is the government of a city, county, town, township, village, school district, or special district that has a population of fewer than 50,000. This definition may also include Indian Tribes.

The major requirement under SBREFA is a regulatory flexibility analysis of all rules that have a “significant economic impact on a substantial number of small entities.” This ICR is not associated with new rules. Therefore, this ICR is not subject to the SBREFA.

EPA has made significant efforts to minimize the burden for all respondents, particularly for small entities. These efforts are described below.

1) *Stage 1 Disinfectants and Disinfection Byproducts Rule*

The Stage 1 DBPR includes requirements tailored to small systems such as reduced monitoring frequency for systems producing finished water below the MCLs and MRDLs, and allowing rule requirements to begin up to five years after promulgation of the rule.

2) *Stage 2 Disinfectants and Disinfection Byproducts Rule*

The Agency took specific steps to minimize the burden of the IDSE on PWSs. For example, the rule included a VSS waiver, which allowed PWSs serving fewer than 500 people to be waived from conducting the IDSE. Small systems required to conduct IDSE, collected fewer samples than larger systems. As with the Stage 1 DBPR, compliance monitoring requirements are based on population served, allowing small systems to collect fewer compliance samples.

¹³ These definitions were taken from section 601 of the Regulatory Flexibility Act (RFA).

3) *Chemical Phase Rules*

For the contaminants regulated under the Phase II regulation, the provisions established in the SMF are intended to minimize burden on small entities by allowing systems to composite as many as five samples and by allowing states to grant waivers, which reduce monitoring requirements.

For Phase V chemicals, EPA has taken steps to minimize the burden on PWSs by allowing systems serving fewer than 3,300 people to composite among different systems provided the five sample limit is maintained. Sample collection has also been simplified by allowing the same sampling locations to be used for all source water-related monitoring.

4) *Radionuclides Rule*

The monitoring requirements for radionuclides apply only to CWSs.

5) *Disinfectant Residual Monitoring and Associated Activities under the SWTR*

The rule allows systems serving 3,300 and fewer people to substitute grab sampling for continuous disinfectant residual monitoring. This enables small systems to avoid capital costs associated with continuous monitoring equipment. The number of compliance samples is based on the population served by the PWS. For example, systems serving 500 or fewer people are required to take one sample, while systems serving 2,501 to 3,300 people are required to take four samples.

6) *Arsenic Rule*

In the Arsenic Rule, states are able to grant monitoring waivers to systems that are reliably and consistently below the MCL. These waivers will reduce the compliance cost for some small systems and will decrease the number of times a system must conduct routine monitoring. The monitoring requirements still allow systems to composite up to five samples. Compositing samples allows systems to reduce the laboratory costs associated with monitoring.

7) *Lead and Copper Rule*

The LCR reduced to the extent practicable and appropriate the burden on small PWSs. The regulations include different compliance or reporting requirements such as allowing states to permit systems to take 1 sample per tap in systems that have fewer than 5 taps.

5(d) Collection Schedule

Exhibit 6 contains a summary of the collection schedules for each rule. Given the wide range of phase-in schedules for the respective rules, additional information may be obtained by consulting the individual rules for specific collection schedules.

Exhibit 6
Collection Schedule¹⁴

Rule	Collection Commencement
Disinfectant residual monitoring and associated activities for the SWTR	1991/1993 (depending on filtration status)
Phase II	1993
Phase IIB	1993
Phase V	1996
Stage 1 DBPR	2002/2004 (depending on system size and source)
Stage 2 DBPR	2006
Radionuclides Rule	2003
Arsenic Rule	2006/2007 (depending on source water)
Lead and Copper Rule	1994

¹⁴ Collection schedule is based on the commencement of monitoring requirements. Startup activities are typically completed prior to these dates.

6 ESTIMATING BURDEN AND COST OF COLLECTION

This section estimates the burden and cost to PWSs, primacy agencies, and EPA for complying with drinking water information collection requirements associated with chemical contaminant-related rulemakings. These rulemakings include the following:

- 1) Stage 1 Disinfectants and Disinfection Byproducts Rule
- 2) Stage 2 Disinfectants and Disinfection Byproducts Rule
- 3) Chemical Phase Rules
- 4) Radionuclides
- 5) Disinfectant Residual Monitoring and Associated Activities under the Surface Water Treatment Rule¹⁵
- 6) Arsenic Rule
- 7) Lead and Copper Rule¹⁶

This section also discusses the assumptions used to estimate burden and costs and describes the change in annual burden, as compared with the 2012 DDBP/Chem/Rads Rules ICR. This ICR updates the annual burden and costs associated with these rulemakings for January 1, 2016 through December 31, 2018.

EPA is committed to accurately characterizing the burden and costs of rules it promulgates. Consequently, EPA has refined some of the assumptions for calculating the burden and costs associated with implementing the drinking water regulations contained in this ICR. For this update, many assumptions were revised based on program changes and well-documented changes in some data. To provide a comparable basis on which to calculate the requirements addressed by the DDBP/Chem/Rads Rules ICR and to address inconsistencies, EPA applied uniform assumptions to all rules. The categories of assumptions are listed below.

- Labor rates: For PWSs, a 2013 labor rate of \$21.62 was obtained from the Bureau of Labor Statistics (BLS). An overhead rate of 60 percent was applied, resulting in an hourly rate of \$34.59. For states, a 2013 labor rate of \$28.50 was obtained from the BLS. An overhead rate of 60 percent was applied, resulting in an hourly rate of \$45.60.
- PWS inventory figures from the most recent frozen SDWIS database pull (October 2014).
- Number of entry points per system, as reported in the 2006 Community Water System Survey (CWSS).
- Number of plants per system, as reported in the 2006 CWSS.

In addition, EPA revised some of the estimates of burden for particular activities to reflect consultations with representatives of PWSs and states (see section 3(c)).

¹⁵ The remaining SWTR requirements are included in the Microbial Rules ICR.

¹⁶ Includes LCR Short-term revisions.

6(a) Respondent Burden

6(a)(i) Burden to Public Water Systems

The annual PWS burden for January 1, 2016 through December 31, 2018 is estimated to be approximately 3.3 million hours. Exhibit 7 tabulates the annual burden hours on a rule-specific basis. Activity-level burden assumptions were carried forward from previous ICRs. If updated data such as system inventories and results of consultations on burden, were available, those data were used in burden calculations. Appendices B through H show the assumptions and detailed burden calculations for each rule. The following further describes the bases for the burden estimates for each rule.

1) *Stage 1 Disinfectants and Disinfection Byproducts Rule*

Activities associated with the Stage 1 DBPR account for 0.50 million annual burden hours. The assumptions used to calculate the Stage 1 DBPR burden are based largely on assumptions from the September 1998 Information Collection Request for the National Primary Drinking Water Regulations: Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBPR ICR). The burden for systems includes only monitoring. The specific burden for monitoring includes the following:

- Paired TTHM/HAA5
- Alkalinity and paired TOC
- Bromate
- Chloride Dioxide
- Chlorite (both daily and monthly monitoring)
- Chlorine or chloramines (in the distribution system)¹⁷

At this point, reduced monitoring burden has not been estimated for the above contaminants, with the exception of alkalinity and paired TOC monitoring, which carried forward reduced monitoring rate estimates from the September 1998 Stage 1 DBPR ICR. The Stage 2 DBPR burden estimates account for any additional monitoring that may be required in addition to monitoring already required under Stage 1 DBPR.

Section 6(f) describes the reasons for changes between the burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Detailed burden and cost calculations for the Stage 1 DBPR are provided in Appendix B.

¹⁷ Includes burden for ground water systems only. Disinfectant residual monitoring and associated activities for surface water systems are addressed by the SWTR.

2) Stage 2 Disinfectants and Disinfection Byproducts Rule

Over the 3 years covered by this ICR, the total national respondent burden to PWSs is estimated at 0.146 million labor hours, an annual average of 0.049 million hours (see Exhibit 7). IDSE activities were completed during a previous ICR period, as were Stage 2 compliance monitoring plans. The next two sections describe the burden estimates for the current ICR period in greater detail.

Additional Routine Compliance Monitoring

Systems began conducting additional routine compliance monitoring during the previous ICR period. This monitoring is in addition to monitoring required under the Stage 1 DBPR. This requirement is not applicable to the majority of the public water systems. The burden for monitoring takes into account any changes in TTHM and HAA5 monitoring requirements resulting from the IDSE conducted during a previous ICR period. All small PWSs, regardless of whether or not they conducted *Cryptosporidium* monitoring under the LT2ESWTR, began to comply with the Stage 2 MCLs previous to this ICR period. Estimated burden and costs are presented in Exhibits 13a through 13c of Appendix C.

Operational Evaluations

An operational evaluation must include an examination of distribution system operational practices and how these practices may be modified to reduce TTHM and HAA5 levels. Systems must discuss their evaluations with the primacy agency. Costs for operational evaluations are presented in Exhibit 13 of Appendix C. Systems with operational evaluations incur costs in the year that the operational level is exceeded. This began in the previous ICR period once systems had 1 year worth of compliance monitoring data, and continues forward in this ICR period.

3) Chemical Phase Rules

PWS activities associated with the Chemical Phase Rules account for a burden of 0.36 million hours per year. The burden estimate includes routine and reduced sampling for IOCs, VOCs, and SOCs under the schedules dictated by the SMF. The assumptions used to calculate the Chemical Phase Rule burden are based on assumptions from the 1993 PWSS Program ICR, which maintained most assumptions and burden estimates from the individual ICRs for the Phase II, IIB, and V rules, with an adjustment to the waiver rate assumptions (in the 2004 DDBP/Chem/Rads Rules ICR) to more accurately reflect actual waiver issuance rates. Section 6(f) describes the reasons for changes between the burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Appendix D summarizes the assumptions used to calculate the Chemical Phase Rule burden and provides the detailed burden and cost calculations.

4) Radionuclides Rule

Annual PWS burden for the Radionuclides Rule is estimated to be 45,631 hours. This is based on burden assumptions carried forward from the 2000 Radionuclides Rule ICR.

Monitoring burden is for the following contaminants:

- Gross alpha
- Beta and photon emitters
- Combined radium-226/-228
- Uranium

Section 6(f) describes the reasons for changes between the radionuclides burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Calculations for burden and costs for the Radionuclides Rule are included in Appendix E.

5) *Disinfectant Residual Monitoring and Associated Activities under the SWTR*

As stated previously, this ICR includes burden estimates only for the disinfection residual monitoring and associated activities required under the SWTR. The Microbial Rules ICR addresses the burden and costs for all other SWTR requirements. Implementation of the SWTR disinfection residual monitoring and associated activities is estimated to result in an annual PWS burden of 1.1 million hours. Included in the estimate is burden for:

- Distribution system residual monitoring.
- Calculation of inactivation ratio using CT values for unfiltered systems.
- Measurement of pH and temperature, as necessary to calculate CT.
- Entry point residual monitoring for filtered systems.
- Entry point residual monitoring for unfiltered systems.

Section 6(f) describes the reasons for changes between the burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Appendix F summarizes the assumptions used to calculate the burden for disinfection residual monitoring and associated activities under SWTR and provides the detailed burden and cost calculations.

6) *Arsenic Rule*

This ICR addresses the burden and cost for arsenic monitoring, reporting, and recordkeeping for 2016 through 2018. PWSs monitor arsenic in accordance with the standard monitoring framework schedule. In this 3-year ICR period, systems with existing waivers are expected to incur burden for reapplying. Implementation of the Arsenic Rule is estimated to result in an annual PWS burden of 200,280 hours. Appendix G summarizes the assumptions used to calculate burden for the Arsenic Rule and provides the detailed burden and cost estimates.

7) *Lead and Copper Rule*

The average annual respondent burden is 1.1 million hours for reporting, recordkeeping, and public education activities of the LCR. Only CWSs and NTNCWSs incur a burden associated with LCR requirements. The burden accounts for the provisions of the short term revisions, which require that systems:

- Take additional tap samples for lead if they are on reduced monitoring and the lead action level of 0.015 mg/L is exceeded.

- Provide revised public education materials according to revised delivery requirements if the lead action level is exceeded, including a statement on lead in the CCR.
- Notify the state before making long term treatment changes.
- Notify customers of results of samples taken at customers' homes.
- Retest LSLs previously exempted from replacement if the lead action level is exceeded.

Section 6(f) describes the reasons for changes between the burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this DDBP/Chem/Rads Rules ICR. Appendix H summarizes the assumptions used to calculate the burden for the Lead and Copper Rule and provides the detailed burden and cost estimates.

6(a)(ii) Burden to Primacy Agencies

The annual burden for primacy agencies is estimated to be approximately 2.0 million hours. Exhibit 8 shows the annual burden hours on a rule-specific basis. Many other state activities, such as compliance assurance and data management, cannot be divided among specific rules and are included in the PWSS Program ICR as general primacy activities. The following briefly describes the bases for the burden estimates:

1) Stage 1 Disinfectants and Disinfection Byproducts Rule

The annual state burden for the Stage 1 DBPR is expected to be 0.15 million hours. This reflects data entry and recordkeeping burden. Section 6(f) describes the reasons for changes between the Stage 1 DBPR burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Detailed calculations for burden and cost are shown in Appendix B.

2) Stage 2 Disinfectants and Disinfection Byproducts Rule

The annual state burden for the Stage 2 DBPR is expected to be 50,822 hours. This reflects reporting and recordkeeping burden for maintaining records and tracking compliance by systems. This ICR also includes burden for reviewing operational evaluations. States are assumed to have already completed their IDSE oversight activities and review of compliance monitoring plans.

3) *Chemical Phase Rules*

For states, the annual burden associated with the Chemical Phase Rules is estimated to be approximately 1.4 million hours. This reflects reporting and recordkeeping burden for routine and reduced sampling for IOCs, VOCs, and SOCs under the schedules dictated by the SMF. Estimates for primacy agency burden for the Chemical Phase Rules are based on State Workload Model¹⁸ assumptions carried forward from the 1993 PWSS Program ICR. Note that the burden associated with oversight of arsenic monitoring is discussed separately below. Section 6(f) describes the reasons for changes between the Chemical Phase Rules burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Detailed calculations for burden and cost are shown in Appendix D.

4) *Radionuclides Rule*

For the Radionuclides Rule, annual state burden is estimated to be 5,476 hours. The annual state burden is based on burden assumptions carried forward from the 2012 DDBP/Chem/Rads Rules ICR. Burden is calculated for primacy agency staff for recordkeeping, reporting, and compliance tracking and analysis requirements, based on the number of analyses conducted by PWSs. Section 6(f) describes the reasons for changes between the radionuclides burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Calculations for cost and burden for the Radionuclides Rule are included in Appendix E.

5) *Disinfectant Residual Monitoring and Associated Activities under SWTR*

As stated previously, this ICR includes burden estimates for only disinfectant residual monitoring and associated activity components of the SWTR. The Microbial Rules ICR addresses the burden and costs for the other SWTR requirements. Implementation of the SWTR disinfectant residual monitoring is expected to result in an annual state burden of 0.16 million hours. Included in this estimate is burden associated with reviewing data for—

- Distribution system residual monitoring.
- Calculation of inactivation ratio using CT values.
- Measurement of pH and temperature, as necessary to meet requirements.
- Entry point residual monitoring for filtered systems.
- Entry point residual monitoring for unfiltered systems.

Estimates for primacy agency burden for the SWTR are based on assumptions carried forward from the 2012 DDBP/Chem/Rads Rules ICR. Section 6(f) describes the reasons for changes between the burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Detailed calculations for burden and cost are shown in Appendix F.

¹⁸ New burden estimates from the revised State Workload Model will be incorporated into the subsequent DDBP/Chem/Rads Rules ICR. See section 5(b) of the PWSS ICR for additional information.

6) *Arsenic Rule*

For the Arsenic Rule, annual state burden is estimated to be 80,704 hours. The annual state burden is based on assumptions carried forward from the 2012 DDBP/Chem/Rads Rules ICR and the 2000 Arsenic Rule ICR. Burden is calculated for primacy agency staff for oversight of monitoring activities. Burden is based on recordkeeping, reporting, and compliance tracking and analysis. In this 3-year ICR period, states will additionally incur burden to review waiver applications submitted by systems with existing waivers. Section 6(f) describes the reasons for changes between burden reported in the 2012 DDBP/Chem/Rads Rules ICR and this ICR. Calculations for cost and burden for the Arsenic Rule are included in Appendix G.

7) *Lead and Copper Rule*

EPA estimates that the annual burden incurred by primacy agencies for activities associated with the lead and copper regulation is approximately 0.18 million hours. This estimate includes costs for employing a corrosion control expert and costs to review various letters and results submitted by water systems in accordance with the LCR. It includes the additional burden associated with the LCR short term revisions, which estimate that states will spend extra time reviewing systems' plans for changing treatment or adding a new source. Further detail about these activities and associated burden and costs is provided in Appendix H.

6(b) Respondent Costs

6(b)(i) Cost to Public Water Systems

Exhibit 7 shows the annual costs for PWSs over the three-year ICR period. Annual costs are estimated at approximately \$374 million, which consists of \$116 million in labor costs, \$5.5 million in capital, and \$253 million in O&M (numbers may not add due to rounding).

Labor costs are based on the number of hours times the average hourly wage rate, including overhead. In addition to labor costs, there are O&M costs associated with each of the rules covered by this ICR. These O&M costs reflect non-labor costs associated with sample shipping and analysis for each of the rules, as well as material costs associated with public education materials and postage. These costs vary by rule according to the frequency and cost of a particular analysis.

In addition to O&M costs, the requirements of one rule (i.e., SWTR) result in capital costs to affected PWSs. Capital costs are incurred to buy and replace monitoring equipment necessary for on-site analysis of disinfectant residuals and water pH. Capital costs are based on vendor estimates for both in-line and portable equipment, as required by regulations. Equipment costs are based on a seven-year replacement cycle. Details on the labor, capital, and O&M costs associated with each rule can be found in Appendices B through H.

6(b)(ii) Cost to Primacy Agencies

Exhibit 8 shows that the annual cost to primacy agencies is estimated at approximately \$90 million, which is comprised almost exclusively of labor costs. There are some O&M costs associated with the LCR (\$5,678). There are no primacy agency capital costs associated with this ICR.

Exhibit 7
Annual PWS Burden and Cost January 1, 2016 – December 31, 2018

Activity	Annual Burden Hours	Cost				Annual Responses
		Annual Labor Cost (\$K)	Annual O&M Cost (\$K)	Annual Capital Cost (\$K)	Total Annual Cost (\$K)	
Stage 1 DBPR	503,623	\$17,421	\$ 102,290	N/A	\$ 119,712	2,043,437
Stage 2 DBPR	48,820	\$1,689	\$ 5,584	N/A	\$ 7,273	19,601
Chemical Phases Rules (Phases II/IIB/V)	356,602	\$12,336	\$ 73,983	N/A	\$ 86,318	507,063
Radionuclides Rule	45,631	\$1,578	\$ 9,703	N/A	\$ 11,282	91,261
Disinfectant Residual Monitoring and Associated Activities under SWTR	1,059,363	\$36,646	\$ 55,221	\$ 5,492	\$ 97,358	9,051,925
Arsenic Rule	200,280	\$6,928	\$ 1,721	N/A	\$ 8,649	32,763
Lead and Copper Rule	1,108,924	\$38,961	\$ 4,937	N/A	\$ 43,898	176,628
TOTAL	3,323,243	\$115,559	\$ 253,440	\$ 5,492	\$ 374,490	11,922,678

Note: Detail may not add exactly to totals due to rounding.

Exhibit 8
Annual Primacy Agency Burden and Cost January 1, 2016 – December 31, 2018

Activity	Annual Burden Hours	Cost				Annual Responses
		Annual Labor Cost (\$K)	Annual O&M Cost (\$K)	Annual Capital Cost (\$K)	Total Annual Cost (\$K)	
Stage 1 DBPR	148,906	\$ 6,790	N/A	N/A	\$ 6,790	48,994
Stage 2 DBPR	50,822	\$ 2,317	N/A	N/A	\$ 2,317	114
Chemical Phases Rules (Phases II/IIB/V)	1,354,532	\$ 61,767	N/A	N/A	\$ 61,767	549,992
Radionuclides Rule	5,476	\$ 250	N/A	N/A	\$ 250	91,261
Disinfectant Residual Monitoring and Associated Activities under SWTR	157,975	\$ 7,204	N/A	N/A	\$ 7,204	177,507
Arsenic Rule	80,704	\$ 3,680	N/A	N/A	\$ 3,680	32,763
Lead and Copper Rule	184,037	\$ 8,392	\$ 6	N/A	\$ 8,398	72,261
TOTAL	1,982,452	\$ 90,400	\$ 6	N/A	\$ 90,406	972,892

Note: Detail may not add exactly to totals due to rounding.

6(c) Agency Burden and Costs

Burden and costs to the federal government are incurred by EPA's drinking water program to assist states in implementing drinking water regulations. EPA burden and costs for general drinking water program implementation activities are accounted for under the PWSS Program ICR. Burden and costs included in the PWSS Program ICR cover all cross-cutting, non-rule specific, regulatory activities associated with compliance tracking, regulatory enforcement, and rule development activities.¹⁹

6(d) Estimating Respondent Universe and Total Burden and Costs

Respondents for this ICR include both PWSs and primacy agencies. This ICR estimates that the number of PWS respondents is 149,765 PWSs.²⁰ However, all PWSs are not necessarily subject to each of the information collection requirements contained in this ICR. The regulations associated with each rule identify the numbers and types of PWSs that are subject to each particular provision. In addition to the PWS respondents, this ICR assumes 57 primacy agencies (50 states plus D.C., U.S. Territories, and the Navajo Nation).²¹ Therefore, the total number of

¹⁹ The EPA burden for activities where EPA acts as a primacy agent counts as primacy agency burden and is included in totals for primacy agency burden.

²⁰ Source: SDWIS/FED Data from October 2014.

respondents is 149,822. The total costs and burden for these respondents are summarized in Exhibits 8 and 9.

6(e) Bottom Line Burden Hours and Costs

The bottom line burden hours and costs for this ICR are presented in Exhibit 9. The total annual respondent burden associated with this ICR, which includes burden for PWSs and primacy agencies, is estimated to be approximately 5.3 million hours. The corresponding total annual respondent costs (labor, capital, and O&M) are estimated to be \$464.9 million. The portion of the total annual respondent costs attributable to capital and O&M costs is \$258.9 million.

²¹ For several of these entities, primacy activities are actually implemented by EPA Regional offices. However, as a simplifying assumption, they are included with the states for respondent calculations under this ICR.

Exhibit 9
Bottom Line Annual Burden and Cost (\$K) January 1, 2016 – December 31, 2018

Annual Number of Respondents	149,822 (=)	
	149,765 (+)	Existing PWSs
	57	Primacy agencies
Total Annual Responses	12,895,570 (=)	
	11,922,678 (+)	PWS responses (see Exhibit 7)
	972,892	Primacy agency responses (see Exhibit 8)
Number of Responses per Respondent	86.1 (=)	
	12,895,570 (/)	Total annual responses from above
	149,822	Total annual respondents from above
Total Annual Respondent Hours	5,305,696 (=)	
	3,323,243 (+)	PWS hours (see Exhibit 7)
	1,982,452	Primacy agency hours (see Exhibit 8)
Hours per Response	0.41 (=)	
	5,305,696 (/)	Total annual respondent hours from above
	12,895,570	Total annual responses from above
Annual O&M and Capital Cost (\$K)	\$258,937 (=)	
	\$253,440 (+)	Total PWS O&M costs (see Exhibit 7)
	\$5,492 (+)	Total PWS capital costs (see Exhibit 7)
	\$6	Total primacy agency O&M costs (see Exhibit 8)
Total Annual Respondent Cost (Labor, Capital, and O&M) (\$K)	\$464,896 (=)	
	\$374,490 (+)	For PWSs (see Exhibit 7)
	\$90,406	For primacy agencies (see Exhibit 8)
Total Annual Hours (resp. plus Agency)	5,305,696 (=)	
	5,305,696 (+)	Total annual respondent hours from above
	-	Total EPA hours
Total Annual Cost (resp. plus Agency) (\$K)	\$464,896 (=)	
	\$464,896 (+)	Total annual respondent cost from above
	-	Total EPA cost

Note: Detail may not add exactly to totals due to rounding.

6(f) Reasons for Change in Burden

This section presents the change in burden and the reasons for the change in burden. The discussion is divided into two parts—

- Section 6(f)(i) summarizes any restructuring adjustments being made for the addition of new stand-alone ICRs to the DDBP/Chem/Rads Rules ICR. See Exhibit 11.

- Section 6(f)(ii) summarizes other adjustments to the annual burden estimates associated with each rule in the 2012 DDBP/Chem/Rads Rules ICR. See Exhibits 12 through 14.

Exhibit 10 summarizes how each of these changes affects the overall burden inventory for the DDBP/Chem/Rads Rules ICR.

Exhibit 10
Summary of Changes in Annual Burden (Includes both PWS and Primacy Agency Burden)

Type of Change	Burden (hours)	Running Total	Comment
Burden Estimated in the 2012 DDBP/Chem/Rads Rules ICR	5,734,335	5,734,335	This burden serves as the baseline for the 2016 DDBP/Chem/Rads Rules ICR.
Restructuring Adjustments—see Section 6(f)(i)	0	5,734,335	2016 DDBP/Chem/Rads Rules ICR is not appended with burden from any new ICRs.
Other Adjustments to Burden—see Section 6(f)(ii)	(428,639)	5,305,696	Burden for which EPA seeks approval in this ICR.

Note: Detail may not add exactly to totals due to rounding.

6(f)(i) Restructuring Adjustments

No restructuring adjustments are being made for the addition of new stand-alone ICRs to the DDBP/Chem/Rads Rules ICR, as shown in Exhibit 11. In the next revision to the DDBP/Chem/Rads Rules ICR any burden from relevant standalone ICRs that have expired will be newly incorporated into the DDBP/Chem/Rads Rules ICR.

Exhibit 11
Restructuring Adjustments to the Annual Burden Inventory for the
DDBP/Chem/Rads Rules ICR (Includes both PWS and Primacy Agency Burden)

Action	Annual Burden Hours	Brief Explanation
N/A	5,734,335	Inventory for the 2012 DDBP/Chem/Rads Rules ICR carried forward as the baseline for 2016 DDBP/Chem/Rads Rules ICR, including PWS and state burden.
Add	0	2016 DDBP/Chem/Rads Rules ICR is not appended with burden from any new ICRs.
Total	5,734,335	2016 DDBP/Chem/Rads Rules ICR inventory based on current burden inventories.

6(f)(ii) Other Burden Adjustments

Changes in calculated burden are a result of updating relevant baseline information for each rule with the most current and accurate information available, such as PWS inventories, and incorporating the results of consultation with stakeholders. Where appropriate and available, estimated violation, waiver, and other associated rates have also been updated to reflect current information on rule compliance. Exhibits 12 and 13 summarize reasons for these changes and quantify the changes by rule. Burden adjustments associated with PWS activities resulted in a burden decrease of 0.46 million hours and are detailed in Exhibit 12. Burden adjustments for primacy agencies result in an increase of 0.04 million hours per year, as shown in Exhibit 13.

Exhibit 12
Adjustments to PWS Burden from Previous ICR Estimates

Activity	Previous Annual Burden Estimate (Hours)	2016 Annual Burden Estimate (Hours)	Annual Change in Burden (Hours)	Reason for Change in Annual Burden
Stage 1 DBPR	596,454	503,623	(92,831)	The net change in the burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory. Burden for ground water systems to calculated disinfectant residuals was reduced to remain consistent with comparable activities under the SWTR.
Stage 2 DBPR	30,842	48,820	17,978	The net change in the burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory. In addition, all the Stage 2 DBPR requirements, such as operational evaluations and additional monitoring requirements, are applicable in this ICR period.
Chemical Phases Rules (Phases II/IIB/V)	365,561	356,602	(8,958)	The net change in the burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory
Radionuclides	14,448	45,631	31,182	The increase in burden is a result of the monitoring flexibility in the regulation which allows public water systems to monitoring on a 3, 6 or 9 year cycle based on initial monitoring results for each contaminant. Due to this flexibility, more public water systems are scheduled to monitor during this ICR period.
Disinfectant Residual Monitoring and Associated Activities under SWTR	1,039,257	1,059,363	20,107	The number of surface water systems has increased, resulting in an increase in the total burden associated with disinfectant residual monitoring requirements.
Arsenic Rule	71,761	200,280	128,519	The increase in burden is a result of the monitoring flexibility in the regulation which allows public water systems to monitoring on a 9 year cycle based on initial monitoring results. Due to this flexibility, more public water systems are scheduled to monitor during this ICR period.
Lead and Copper Rule ²	1,669,205	1,108,924	(560,281)	The net change in the burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory, as well as updated data on the number of action level exceedances.
TOTAL²	3,787,528	3,323,243	(464,285)	Adjusted PWS Burden

Notes:

(1) Detail may not add exactly to totals due to rounding.

(2) Note that a draft of the DDBP/Chem/Rads Rules ICR was approved by OMB in 2012, which listed 1,669,205 hours of annual PWS burden, based on lead action level query results available at the time. Lead action level data were re-queried between the draft and final DDBP/Chem/Rads Rules ICR and the final annual PWS burden for LCR in the previous 3-year ICR period was 1,100,309 hours, which is consistent with the burden estimates developed for the current 3-year ICR period.

Exhibit 13				
Adjustments to Primacy Agency Burden from Previous ICR Estimates				
				period; samples taken as part of a 9-year monitoring cycle are expected to occur during this ICR period. Additionally, systems are expected to submit waiver applications, which are also on a 9-year cycle. Note the increased system sampling and waiver applications result in an increase in state reporting and recordkeeping burden. The increase in burden is a result of the monitoring flexibility in the regulation which allows public water systems to monitoring on a 9 year cycle based on initial monitoring results. Due to this flexibility, more public water systems are scheduled to monitor during this ICR period, and therefore submit more monitoring results to the primacy agency.
Arsenic Rule	18,765	80,704	61,939	
Lead and Copper Rule ³	222,157	184,037	(38,120)	The net change in the burden is attributed to the adjustments made in the modeling inputs to account for updated PWS inventory, as well as updated data on the number of action level exceedances.
TOTAL^{2,3}	1,946,807	1,982,452	35,645	Adjusted Primacy Agency Burden

Notes:

(1) Detail may not add exactly to totals due to rounding.

(2) Note that a draft of the DDBP/Chem/Rads Rules ICR was approved by OMB in 2012, which listed 150,462 hours of annual agency burden (based on the proportion of burden for SWTR activities covered under the DDBP/Chem/Rads Rules ICR and the Microbial Rules ICR at the time). Once the 2012 Microbial Rules ICR was approved by OMB, the proportion of burden attributable for SWTR activities covered under the DDBP/Chem/Rads Rules ICR and the Microbial Rules ICR was finalized, and the final annual agency burden for SWTR Disinfectant Residual Monitoring in the previous 3-year ICR period was 155,507 hours.

(3) Note that a draft of the DDBP/Chem/Rads Rules ICR was approved by OMB in 2012, which listed 222,157 hours of annual primacy agency burden, based on lead action level query results available at the time. Lead action level data were re-queried between the draft and final DDBP/Chem/Rads Rules ICR, and the final annual primacy agency burden for LCR in the previous 3-year ICR period was 185,861 hours, which is consistent with the burden estimates developed for the current 3-year ICR period.

Exhibit 14 shows the effect of these adjustments on the bottom line burden. Subtracting 0.46 million hours to account for the adjustment to the PWS burden and adding 0.04 million hours to account for the upward adjustment to the primacy burden yields 5.3 million hours.

Exhibit 14
Adjustments to Annual Burden Carried Forward from Previous ICR Estimates
(Includes both PWS and Primacy Agency Burden)

Action	Annual Burden Hours	Brief Explanation
None	5,734,335	2012 DDBP/Chem/Rads Rules ICR inventory based on current burden inventories (see Exhibit 11).
Add	(464,285)	Adjustment to the PWS burden carried forward from previous ICRs (see Exhibit 12).
Add	35,645	Adjustment to the primacy agency burden carried forward from previous ICRs (see Exhibit 13).
Total	5,305,696	Hours requested in 2016 DDBP/Chem/Rads Rules ICR.

Note: Detail may not add exactly to totals due to rounding.

6(g) Burden Statement

The public reporting burden for collections included in this ICR is detailed in Exhibit 14 above. The annual respondent burden is estimated to average approximately 5.3 million hours, of which 3.3 million hours are attributable to PWSs and 2.0 million hours to primacy agencies. These estimates include time for gathering information as well as developing and maintaining records.

Burden means the total time, effort, or financial resources expended by people to generate, maintain, retain, disclose, or provide information to or for a federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology, and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a request for information collection unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OW-2011-0439, which is available for online viewing at www.regulations.gov, or in person viewing at the Water Docket in the EPA Docket Center (EPA/DC), WJC West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through

Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426. An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, to access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select “search,” then key in the Docket ID Number identified above. Comments can also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number (EPA-HQ-OW-2011-0439) and the OMB Control Number 2040-0204 in any correspondence.