Final Information Collection Request for the Disinfectants/Disinfection Byproducts, Chemical, and Radionuclides Rule

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ACRONYMS

AMWA	Association of Metropolitan Water Agencies
AWWA	American Water Works Association
ASDWA	Association of State Drinking Water Administrators
BATs	Best Available Technologies
BLS	Bureau of Labor Statistics
CCR	Consumer Confidence Report
CDC	Centers for Disease Control and Prevention
CFR	Code of Federal Regulations
CT	Contact Time
CCT	Corrosion Control Treatment
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
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
NDWAC	National Drinking Water Advisory Council
NPDWRs	National Primary Drinking Water Regulations
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 Analysis
SBREFA	Small Business Regulatory Enforcement Fairness Act
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SMF	Standardized Monitoring Framework
SNC	Significant Non-Compliance
SOCs	Synthetic Organic Compounds
SWAP	Source Water Assessment Program
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TOC	Total Organic Carbon
TNCWS	Transient Noncommunity Water System
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 (Renewal)

OMB Control Number: 2040-0204

EPA Tracking Number: 1896.09

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 or the Agency) 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 further 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 stipulates that every drinking water supplier must 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. State[1] governments—in those States that have assumed primary enforcement responsibility (i.e., primacy) for public water systems (PWSs) under the SDWA Section 1413—ensure that PWSs are complying with these monitoring requirements. As part of the PWSS Program, the OGWDW uses the Safe Drinking Water Information System (SDWIS) to record some of the data collected as a result of NPDWR requirements. SDWIS is a database management system that assists EPA in tracking and interpreting monitoring data and other program-related data. These data assist EPA in fulfilling its SDWA obligations.

This Information Collection Request (ICR) was prepared in accordance with the April 2005 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.

[1] Throughout this document, the terms "State" or "States" are used to refer to all types of primacy agencies. There are currently 57 primacy entities, including the 50 States, the District of Columbia, U.S. territories (Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Northern Marianas), and the Navajo Nation. Though Wyoming and the District of Columbia do not have primacy, the EPA burden for these activities counts as primacy agency burden.

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 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—i.e., the burden and cost for complying with drinking water information requirements that are not associated with contaminant-specific rulemakings—are addressed in the PWSS Program ICR (OMB No. 2040-0090). Future chemical-related rulemaking burden will be added to this ICR after the regulations are finalized and the initial, rule-specific, ICRs have expired.

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)[2]
6) Arsenic Rule
7) Lead and Copper Rule (LCR), including the Lead and Copper Rule Short Term Revisions

This ICR estimates burden and costs for January 1, 2012–December 31, 2014.

The total annual burden associated with this ICR is estimated to be 5,734,335 hours per year. The total annual cost associated with this ICR is estimated to be approximately $436 million. The distribution of annual burden between PWSs and primacy agencies is approximately 3,787,528 hours and 1,946,807 hours, respectively (numbers may not add due to rounding). The distribution of annual costs between PWSs and primacy agencies is approximately $350 million and $85 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 $230 million ($225 million for O&M and $5.0 million for capital). This represents the "cost burden" as reported in the OMB inventory.

The total annual number of respondents for this ICR is 153,036. Fifty-seven of these respondents are primacy agencies and the remaining 152,979 respondents are existing PWSs. The total annual number of responses for these respondents is 12,837,827 (11,899,451 for PWSs and 938,376 for primacy agencies).

[2] 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 chemical 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 Total Coliform Rule (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)[3]
6) Arsenic Rule
7) Lead and Copper Rule (LCR), including the Lead and Copper Rule Short Term Revisions

As EPA publishes new regulations, EPA will amend the appropriate ICR to include the new rules.

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 amended (1996) statutory requirements for these contaminants.

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

In addition, 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 public water systems supplied by surface water sources (Section 1412 (b)(7)(C)(i)). Promulgation of the SWTR 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 under SDWA. Without comprehensive, up-to-date information on chemical contaminants present in drinking water, the Agency would not be able to meet the SDWA statutory requirements.

§ 1401 of the SDWA requires that—

there must be criteria and standards to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including quality control and testing procedures to insure compliance with such levels and to insure proper operation and maintenance of the system...

Further, §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, §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

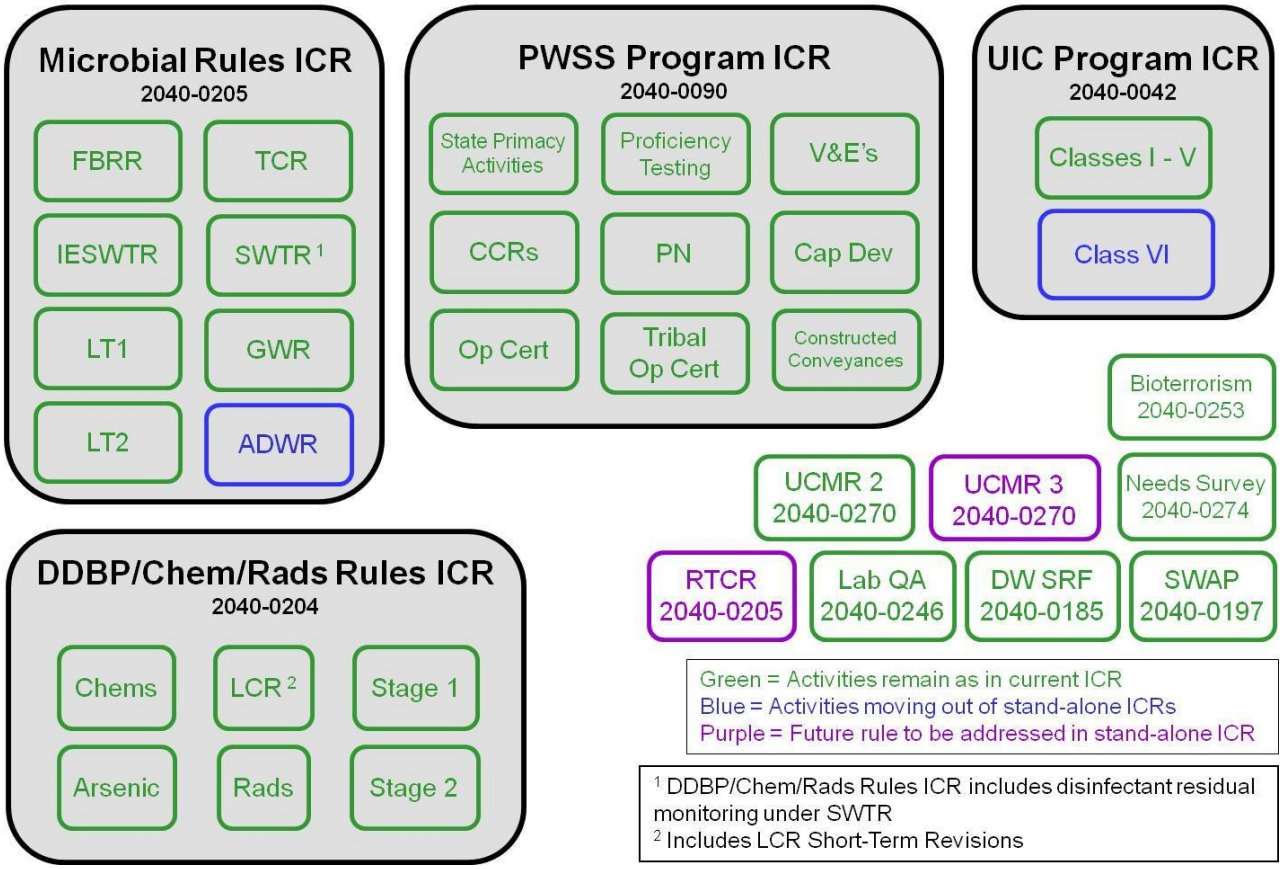

Exhibit 1

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 Expense Reimbursement Grants Program	
Tribal Operator Certification	
Constructed Conveyances	
Proficiency Testing	
Microbial Rules ICR (2040-0205)	
Surface Water Treatment Rule, except disinfectant residual monitoring and associated activities[4]	Aircraft Drinking Water Rule[5]
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	
Disinfectants/Disinfection Byproducts, Chemical, and Radionuclides Rules ICR (2040-0204)	
Stage 1 Disinfectants and Disinfection Byproducts Rule	
Disinfectant Residual Monitoring and associated activities under the SWTR	
Stage 2 DBPR	
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	Class VI Geologic Sequestration Rule
Class V Rule	
Florida Class I Rule	
Drinking Water State Revolving Fund (DWSRF) Program ICR (2040-0185)	

[4] Disinfectant residual monitoring and associated activities are included in the DDBP/Chem/Rads Rules ICR.
[5] Burden and Costs from the ADWR ICR will be incorporated into the 2012 Microbial Rules ICR, which will be updated under a subsequent Work Assignment.

Currently covered	To be covered in the future
Drinking Water State Revolving Fund Program	
Drinking Water Infrastructure Needs Survey ICR (2040-0274)	
2011 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	
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 contamination (as provided by SDWIS), EPA would not be able to ensure a supply of drinking water that dependably complies with such maximum contaminant levels. 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.

Thus, without this information collection, EPA would not be able to ensure safe drinking water for the nation.

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 §§141.31, 141.34, and 141.35.

Most recordkeeping requirements for PWSs are codified in §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 §§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, Indian Tribes, and, in some instances, EPA Regional Administrators. 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, through notices in the mass media or water bills, 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.[6]

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 systems requiring remedial action, and to monitor progress of capacity development strategies. The primacy agency must also track enforcement actions issued against each PWS not in compliance with

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

drinking water standards and evaluate the system's status in meeting schedules designed to return the PWS to compliance.

On a quarterly basis, EPA uses the Enforcement Tracking Tool (ETT) to generate a list of PWSs that are considered "priority systems" for enforcement. Together the Enforcement Response Policy (ERP) and ETT will prioritize and direct enforcement response to systems with the most systemic noncompliance by considering all violations incurred by a system in a comprehensive way. The policy and tool identify priority systems for enforcement response, provide a model to escalate responses to violations; define timely and appropriate actions; and clarify what constitutes a formal action. 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. EPA may also take action against a PWS before it is in SNC.

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. Generally, EPA Regional Offices perform this duty and use 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 effort to help all drinking water systems, particularly small systems, improve their finances, management, infrastructure, and operations. This helps ensure that safe drinking water is provided, consistently, reliably, and cost-effectively.

Economic and Policy Analyses

SDWIS data are used extensively in developing economic analyses (EAs) of proposed new regulations or revisions of existing regulations. The data help to determine a system's susceptibility and vulnerability to contaminants, as well as the potential for co-occurrence of 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 water supply industry 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, as required by the Freedom of Information Act (40 CFR, Chapter 1, Part 2). In some cases, the SDWA requires that the information be provided to the public or primacy agency. Other organizations that utilize the data include—

- Staff from other EPA programs (such as Superfund, the Resource Conservation and Recovery Act, and the 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
- National Association of Water Companies
- Association of State Drinking Water Administrators (ASDWA)
- Natural Resources Defense Council

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 (such as CDC), 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 implementing 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. Specifically, on July 5, 2011 EPA published a notice in the Federal Register (FR) requesting comment on the estimated respondent burden and other aspects of this ICR (76 FR 39092, see 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 a standard regulatory development practice to promote public involvement, EPA formally solicits public comment on proposed drinking water rules. Before any rule is finalized, EPA logs and evaluates all written comments on proposed rules. Additionally, EPA usually holds public meetings during which any interested party may provide oral testimony for Agency consideration. Such meetings are typically announced in the FR notice accompanying the proposed rule.

In the initial phases of program development, or to confirm assumptions on which rules or guidelines are based, EPA often augments formal meetings with other workshops or meetings to gather information. Throughout the development and implementation of various chemical regulations, OGWDW held numerous meetings with interested stakeholders, including State, EPA Regional, and PWS representatives, to identify the value and ease of collecting information needed to fulfill SDWA obligations. Specific examples of meetings EPA held to address the chemical regulations contained in this ICR include—

- Consultations held for Chemical Phase Regulations, including—

    - July 12, 1989, meeting in Washington, DC for the Phase II and IIB Rules.

    - September 25, 1990, meeting in Washington, DC for the Phase V Rule.

    - A Radionuclides stakeholder meeting on December 11-12, 1997. EPA consulted with a broad range of stakeholders and technical experts during the meeting and discussed a range of regulation development issues, including statutory requirements, the court-stipulated agreement, MCLs for each of the radionuclides, new scientific information on health effects, occurrence, analytical methods, treatment technologies, and the current and proposed monitoring framework. Participants in EPA's stakeholder meeting included representatives from AMWA, ASDWA, AWWA, National Association of Water Companies, States, Federal agencies, environmental groups, and city water systems.

    - To develop the Stage 1 DBPR, EPA instituted a formal regulatory negotiation (RegNeg) process in 1992 with potentially affected parties (57 FR 53866; Nov 13, 1992). This RegNeg Committee included representatives from the water and other industries, State public health and regulatory agencies, environmental groups, consumer groups, and EPA.

    - Development of the 2001 Revised Arsenic Rule included stakeholder meetings, held with the intent of collecting input from those directly affected by the revisions to the arsenic MCL and to the monitoring requirements. The Agency held four meetings to discuss revisions to the proposed arsenic rule:

        - September 11-12, 1997 - Washington, DC;
        - February 25, 1998 - San Antonio, Texas, following a 2-day AWWA workshop on inorganics;
        - May 5, 1998 - Monterey, California; and
        - June 2-3, 1999 - Washington, DC (including a half-day conference call)

    - In developing the final version of the 1991 LCR, EPA consulted with the National Drinking Water Advisory Council (NDWAC) and requested comments from its Science Advisory Board. The monitoring requirements of the LCR reflect comments made by the drinking water industry. In addition, during the comment period for the 1991 LCR, approximately 28,000 comments were received from approximately 3,000 individuals and organizations.

    - More recently, EPA developed the Lead and Copper Rule Minor Revisions (LCRMR) (promulgated in January 2000) and held the following meetings, consultations, and work group discussions to address these modifications:

- The LCRMR workgroup (comprised of EPA Headquarters and Regional staff as well as State drinking water officials) was established in 1993 and held several discussions throughout development of the LCRMR.
- Several EPA-sponsored stakeholder meetings were held to discuss burden reduction efforts and development of the LCRMR.
- OGWDW 's Data Sharing Committee worked with several States and ASDWA to revise primacy agency reporting requirements based on comments received on the April 1996 proposed changes.
- In 1998, prior to publishing additional notices for comment, EPA provided national, local, and tribal organizations with brief articles for inclusion in their newsletters. These articles announced EPA's plans to publish the notices and encouraged readers to provide comment on the additional regulatory options, which would be described in those notices.
- EPA coordinated closely with States and several national organizations to provide copies of the August 18, 1998, proposed rule directly to water systems most likely to be affected by the regulatory options discussed in the notice. This included all water systems serving more than 50,000 people and any smaller water system likely to continue to exceed an action level after the installation of corrosion control treatment.
- During February 1999, EPA consulted with a State Unfunded Mandates Reform Act panel regarding the revised ICR burden and cost estimates for the LCR and LCRMR and assumptions used to derive these estimates.

- In 2007, EPA promulgated short term changes to the Lead and Copper Rule, identified through a comprehensive national review of compliance and implementation of the LCR. In conducting this review, EPA consulted with a wide range of interested parties. The comprehensive review consisted of several elements, including a series of workshops designed to elicit issues, comments, and suggestions from stakeholders on particular topics, and a review of LCR implementation by States and utilities.

- The Stage 2 DBPR is the result of a lengthy regulatory negotiation process that began in the Spring of 1999. To address the public health concerns necessitating promulgation of the Stage 2 DBPR, EPA explored a number of regulatory alternatives with the M-DBP Advisory Committee, an advisory group to EPA, which was convened under the FACA.

As part of the revision of the DDBP/Chems/Rads ICR, in the summer of 2011 EPA consulted with representatives of PWSs and States regarding the accuracy of EPA's burden estimates. EPA compiled a spreadsheet with burden estimates for each activity for each rule and provided the file to AWWA, AMWA, ASDWA, NAWC, and NRWA. AWWA, AMWA, and ASDWA in turn consulted a small sample of their members for feedback on the estimates. ASDWA, AMWA, NAWC, and AWWA submitted revised burden estimates. In general, ASDWA felt that EPA's estimates were reasonable. AMWA felt that in some cases EPA underestimated the amount of time large systems needed to for monitoring activities. ASDWA

felt that in a few cases, EPA slightly underestimated the amount of time States needed to review reports submitted by systems.

For information collection requirements for which comments were received, EPA compiled the suggested estimates and prepared revised burden estimates. The end of each appendix to this ICR contains a table summarizing the original and revised burden estimates.

Since the regulations covered by this ICR are not new, the typical consultations, workshops, and meetings held for proposed rules were not held immediately prior to the development of this document.

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 (e.g. by granting waivers or reducing the monitoring frequency/sites). Monitoring frequencies have been carefully devised based on the following—

- Type of contaminant.
- Type and size of system.
- System vulnerability.
- Contaminant history.
- Factors contributing to DBP formation (Stage 1 DBPR only).

3(e) General Guidelines

This ICR was prepared in accordance with the November 2005 version of the 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 OMB's implementing guidelines.

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, which include States, Tribes (if they have been authorized to act as 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. In addition, as required by §141.33, PWSs must either maintain analytical reports or transfer the following information regarding sample results to a tabular summary—

- 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 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, and disinfection byproduct 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
Stage 2 DBPR		
Reporting		

Requirement	Regulatory Citation	Frequency/ Retention Period
Recordkeeping		
Records of Initial Distribution System Evaluation (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 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 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 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 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 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.		
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
Tap water and water quality parameters (WQP) monitoring requirements		
Water systems that exceed the	40 CFR 141.84(b) & (c)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
lead action level must reevaluate lead service lines classified as "replaced" through testing if they resume lead service line replacement programs.		
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 §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 water quality parameter monitoring	40 CFR 141.86(d)(4)(vi)(B)	As necessary
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	40 CFR 141.90(a)(4)(iii)	As necessary, within 60 days after becoming aware of change

Requirement	Regulatory Citation	Frequency/ Retention Period
lead-containing or copper-containing materials.		
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
Source water monitoring reporting requirements		
Report the sampling results for all source water samples collected in accordance with §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
Corrosion control treatment reporting requirements		
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
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 *prior* 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 corrosion control treatment (CCT).	40 CFR 141.82(h)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
For systems required to evaluate the effectiveness of CCTs, report the information required by §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
Source water treatment reporting requirements		
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
Public education program reporting requirements		
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
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	40 CFR 141.80(g); 141.85(d); 141.90(f)(3)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
distributed.		
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. They also approve or review monitoring plans, waivers, treatment changes, public education, and other documents submitted by PWSs. In addition, States report compliance and enforcement data to EPA, and they 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
Recordkeeping		
Maintain records of tests, measurements, analyses, decisions, and determinations performed on each PWS to determine compliance with applicable	40 CFR 142.14(a)	Varies

Requirement	Regulatory Citation	Frequency/ Retention Period
provisions of State primary drinking water regulations.		
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	40 CFR 142.14(d)(12)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
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 disinfection byproducts.		
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	40 CFR 142.14(d)(12)(iii)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
compliance criteria.		
A register of qualified operators that have met the State requirements.	40 CFR 142.14(d)(12)(iv)	12 years
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 disinfection byproducts 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

Requirement	Regulatory Citation	Frequency/ Retention Period
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	40 CFR 141.23(b)(3) and (4)	3 years, as necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
asbestos waiver requests.		
Make determination regarding IOC waiver requests.	40 CFR 141.23(c)(2) through (4)	9 years, as necessary
Make determination regarding volatile organic compounds (VOC) waiver.	40 CFR 141.24(f)(7), (8), and (10)	6 years or frequency specified by State, as necessary
Make determination regarding synthetic organic compounds (SOC) waiver requests.	40 CFR 141.24(h)(5) and (6)	3 years, as necessary
Recordkeeping		
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

Requirement	Regulatory Citation	Frequency/ Retention Period
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	40 CFR 142.14(d)(7)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
part 141, subpart K demonstrating the system's compliance with the treatment techniques for acrylamide and/or epichlorohydrin.		
Radionuclides		
Reporting		
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
Recordkeeping		
Subject to general requirements as listed above.		
SWTR (only disinfection residual monitoring and associated activities)		
Reporting		
Subject to general requirements as listed above		
Recordkeeping		
Records of disinfectant residual	40 CFR 142.14(a)(4)(i)	1 year

Requirement	Regulatory Citation	Frequency/ Retention Period
measurements and other parameters necessary to document disinfection effectiveness.		
Records of decisions to allow an unfiltered or filtered, respectively, 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), respectively	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

Requirement	Regulatory Citation	Frequency/ Retention Period
Records of any decision that failure to meet the disinfectant residual concentration requirements of 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	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
for the decision. A copy of the decision must be provided to the system.		
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	40 CFR 141.81(b)(3)(iii); 141.86(d)(4)(vii); 141.86(g)(4)(iii); 141.90(a)(3)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
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.		
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	40 CFR 141.81(e)(2)	Within 18 months (medium systems) or 24 months (small systems) of exceedance

Requirement	Regulatory Citation	Frequency/ Retention Period
exceeds the lead or copper action level).		
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 water quality parameters.	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
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	40 CFR 141.83(b)(6)	As necessary or as requested

Requirement	Regulatory Citation	Frequency/ Retention Period
copper concentrations along with a basis for the decision and an implementation schedule.		
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	40 CFR 141.86(c)	As necessary

Requirement	Regulatory Citation	Frequency/ Retention Period
when a system is conducting reduced monitoring.		
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
Report to EPA the following information related to each system's compliance with lead and copper requirements:		

Requirement	Regulatory Citation	Frequency/ Retention Period
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	40 CFR 142.15(c)(4)(iii)(C)	Quarterly

Requirement	Regulatory Citation	Frequency/ Retention Period
exceeds the copper action level, and the first and last day of each monitoring period in which an exceedance occurred.		
For each PWS for which the State has designated optimal water quality parameters 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 lead service lines (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	40 CFR 142.15(c)(4)(iii)(F)	Quarterly

Requirement	Regulatory Citation	Frequency/ Retention Period
source water treatment requirements or completed lead service line replacement (LSLR) requirements and the date of the State's determination that these requirements have been met.		
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	40 CFR 142.14(d)(8)(ii)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
system to conduct CCT studies.		
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	40 CFR 142.14(d)(8)(ix)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
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.		
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
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	40 CFR 142.14(d)(8)(xii)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
monitoring.		
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	40 CFR 142.14(d)(10)(ii)	12 years

Requirement	Regulatory Citation	Frequency/ Retention Period
State activities to verify compliance with the requirements related to partial LSLR and compliance with LSLR schedules.		
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

In general, each PWS is required to monitor for compliance with the MCLs or MRDLs established in 40 CFR Part 141, Subpart B. 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 chemical regulations addressed in this ICR include—

- Planning activities associated with rule implementation (e.g., scheduling monitoring).
- Gathering information (i.e., identifying sample sites and taking samples).
- Creating information by conducting tests on 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 (§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:[7]

- Coordinate with EPA.
- Notify systems of requirements.
- Make compliance determinations.
- Provide 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).

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 rule —

- Sets the MCL for total trihalomethanes (§141.64).
- Sets MCLs for haloacetic acids (HAA5), bromate, and chlorite (§141.64).
- Sets MRDLs for chlorine, chloramines, and chlorine dioxide (§141.65).
- Sets treatment techniques (enhanced coagulation and enhanced softening) for DBP precursors (§141.135).
- Establishes Best Available Technologies (BATs) for controlling disinfection byproducts and disinfectants (§141.64 and §141.65, respectively).

The information collection requirements necessary to comply with these requirements include monitoring, reporting, and recordkeeping requirements. In general, systems must report

[7] Some of the general activities conducted by States are included in the PWSS Program ICR (OMB 2040-0090).

the number of samples and the location, 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. Note that compliance monitoring for the Stage 2 DBPR begins during this ICR period; compliance dates vary depending on system size. The Stage 2 DBPR changes the way compliance with the MCLs for TTHM and HAA5 is calculated—for systems that take samples at more than one location, 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. For some systems monitoring requirements, including frequency and location, may also change. Other Stage 1 DBPR requirements remain unchanged.

MAXIMUM CONTAMINANT LEVELS (MCLs)

Total Trihalomethane (TTHM) and HAA5 MCLs

(a) Small Subpart H[8] Systems Serving Fewer Than 500 People

- **Routine Monitoring (§141.132).** CWSs and NTNCWSs must take one sample per plant per year for both total trihalomethane (TTHM) and HAA5.
- **Reduced Monitoring (§141.132).** No reduced monitoring is allowed.
- **Compliance Requirements (§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.

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

- **Routine Monitoring (§141.132).** CWSs and NTNCWSs must take one sample per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (§141.132).** Systems with annual average TTHM < 0.040 mg/L and HAA5 < 0.030 mg/L and source water total organic carbon (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 (§141.132).** CWSs and NTNCWSs must take four samples per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (§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.

[8] 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).

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

- **Routine Monitoring (§141.132).** CWSs and NTNCWSs must take one sample per plant per year for both TTHM and HAA5.
- **Reduced Monitoring (§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 (§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 (§141.132).** CWSs and NTNCWSs must take one sample per plant per quarter for both TTHM and HAA5.
- **Reduced Monitoring (§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 (§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: 1) as close as possible to the first customer; 2) a location representative of average residence time; and 3) a location reflecting the maximum residence time.
- **Reduced Daily Monitoring (§141.132).** There is no reduced daily monitoring for chlorite.
- **Routine Monthly Monitoring (§141.132).** Each month, systems must take one sample at three following distribution system locations.
- **Reduced Monthly Monitoring (§141.132).** After one year of routine monitoring, systems may reduce to one three-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 (§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 operating under normal conditions.
- **Reduced Monitoring (§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 revert to routine monitoring. The system must continue to monitor for bromide if it wishes 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. MRDLs protect public health by setting maximum limits on the level of residual disinfectants in drinking water while setting a level that protects public health.

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 Cl_2).

- **Routine Monitoring (§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 (Subpart H systems are already taking these samples under the SWTR).
- **Reduced Monitoring (§141.132).** There is no reduced monitoring for chlorine and chloramines.

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 (§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.

- **Reduced Monitoring (§141.132).** There is no reduced monitoring for chlorine dioxide.

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 (§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 (§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, they must revert to routine monitoring.

MONITORING PLANS

Under the Stage 1 DBPR, each system required to conduct monitoring must develop and implement a monitoring plan (§141.132). The system must maintain its plan and make it available to the public and 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 by changing compliance monitoring requirements and compliance determination. The numerical maximum contaminant levels (MCLs) for the Stage 2 DBPR are the same as for the Stage 1 DBPR MCLs. However, with Stage 2, the TTHM and HAA5 MCLs must be met at each monitoring location, while Stage 1 requires a system to average results over all monitoring locations. Note that in some cases the Stage 2 monitoring requirements and locations will change, but in others they will be the same as in Stage 1.

Each rule activity is described below. Implementation activities and initial distribution system evaluations, along with Stage 2 monitoring plans, were completed during the previous ICR period.

Systems

Most PWSs will be involved in the following collection activities:

Additional Routine Monitoring

Under Stage 2, some systems may not need to conduct any additional monitoring on top of what they do for Stage 1, although their monitoring locations may change. However, many systems will be required to conduct additional monitoring. This additional monitoring will begin during this ICR period and is based on the monitoring plan submitted during the previous ICR period. The compliance date varies based on system size and other factors. Systems will:

- Assess the change in the number of samples to be collected from the Stage 1 to the Stage 2 DBPR
- Conduct additional routine monitoring
- Determine if provisions for reduced monitoring are satisfied
- Determine if increased monitoring for small systems 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
- Compile and 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 the 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 new Stage 2-specific recordkeeping requirements in §142.14(a)(8), keeping records for the time specified:

- 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 transient noncommunity water systems (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 Contaminants	Synthetic Organic Compounds	Volatile Organic Compounds
Phase I[9]	N/A	N/A	Benzene Carbon tetrachloride p-Dichlorobenzene Trichloroethylene

[9] 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.

Phase of Regulation	Inorganic Contaminants	Synthetic Organic Compounds	Volatile Organic Compounds
			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 byphenyl 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

INORGANIC COMPOUNDS

This section summarizes the IOC monitoring requirements for most of the first 3-year compliance period of the third compliance cycle (which began on January 1, 2011), as described in 40 CFR 141.23(c). 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. Waivers are not available for nitrate or nitrite monitoring.

VOLATILE ORGANIC COMPOUNDS

This section summarizes VOC monitoring requirements for most of the first 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 the first 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. Under Federal regulations, systems with a waiver are not required to sample.

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 will have discretion in grandfathering existing distribution system data for determining initial monitoring baselines.

5) Disinfectant Residual Monitoring and Associated Activities under the SWTR[10]

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

- Periodic disinfection residual monitoring from the distribution system for Subpart H systems. (§141.74 (b)(6)(i) for unfiltered systems and §141.74(c)(3)(i) for systems that filter).
- Continuous disinfectant residual monitoring at entry points into the distribution system. (§141.74 (b)(5) for unfiltered systems and §141.74(c)(2) for systems that filter)[11].
- Calculation of inactivation ratios for unfiltered systems using contact time (CT) values (§141.74 (b)(3))[12].

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

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

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

[12] 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.

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.

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

7) Lead and Copper Rule

CWS and NTNCWS owners and operators are required to comply with the LCR. In general, the LCR requires each of these water systems to undertake the following activities[13]:

- 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 CWS and NTNCWS owners and operators, 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.

[13] 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.

- Notify customers of results of samples taken at their homes.
- Retest LSLs previously exempted from replacement if the lead action level is exceeded.

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.

EPA will also conduct primacy activities in States 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 disinfection 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 Under the PWSS Program, EPA will modify SDWIS and its data verification procedures to accommodate new violation data from all rules. EPA checks data quality by doing the following:

- Developing standard operating procedures for each rule
- Editing the data submitted for content and required format in SDWIS
- Sending rejected data back to the States/Primacy Agencies for corrections
- Requiring the State/Primacy Agency to resubmit corrected data
- Auditing data submitted by the States/Primacy Agencies based on the EPA protocol

- Reviewing State/Primacy Agency data annually for corrective actions

EPA defines information requirements and States/Primacy Agencies need to update the data in a predefined format. The public may access the violation data in SDWIS through the Internet at http://water.epa.gov/scitech/datait/databases/drink/sdwisfed/howtoaccessdata.cfm.

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[14].

- 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.

However, EPA has made significant efforts to minimize the burden for all respondents, particularly for small entities. In setting both MCLs/MRDLs and monitoring requirements, EPA has been able to minimize burden for small entities in the following ways—

1) Stage 1 Disinfectants and Disinfection Byproducts Rule

EPA has taken steps to minimize the burden on small PWSs. These measures include lower monitoring frequency for small systems, reducing monitoring frequency for systems consistently and reliably below the MCLs and MRDLs, and extending the compliance date for small systems to five years after promulgation of the rule.

2) Stage 2 Disinfectants and Disinfection Byproducts Rule

Using information found in the Stage 2 Economic Analysis (EA), along with additional information from SDWIS, the Community Water System Survey (CWSS), and the U.S. Census, EPA conducted a quantitative analysis of small system impacts as a result of the rule. Based on

[14] These definitions were taken from §601 of the Regulatory Flexibility Act (RFA).

that analysis, EPA certified that the Stage 2 DBPR would not lead to significant economic impacts for a substantial number of small entities.

The Agency took specific steps to minimize the burden of the IDSE on PWSs, for example. PWSs serving fewer than 500 people were waived from conducting the IDSE in most cases. NTNCWSs serving fewer than 10,000 people were not subject to the IDSE at all. Those small systems that were required to monitor as part of the IDSE had taken fewer samples than did large systems. As with the Stage 1 DBPR, compliance monitoring requirements are also based on system size, and small systems take fewer samples than large systems.

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 or eliminate monitoring requirements.

For Phase V chemicals, EPA has taken steps to minimize the burden on PWSs (in addition to the provisions listed for Phase II contaminants) 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 to substitute grab sampling for continuous disinfectant residual monitoring. This enables small systems to avoid capital costs associated with continuous monitoring equipment. Further, the number of daily grab samples required for measuring the disinfectant residual is directly related to the system's size. 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, in order to assist small entities, States will 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. In addition, 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

In developing the original Lead and Copper Rule, EPA considered SBREFA in an attempt to minimize the burden of information collections on small entities. EPA later determined that the LCR Minor Revisions would not have a significant impact on a substantial number of small entities.

EPA recognizes that some water systems are small entities; therefore, the LCR reduced to the extent practicable and appropriate the burden on PWSs, especially smaller systems. The regulations include the following examples of reduced burden for small systems:

- Different compliance or reporting requirements or schedules that take into account the resources available to smaller water systems. Specifically, the LCR Short Term Revisions allow States to permit systems to take 1 sample per tap in systems that have fewer than 5 taps.
- Consolidated or simplified compliance and reporting requirements.
- No unnecessary or redundant requirements.

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 Schedule[15]

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

[15] 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 Rule[16]
6) Arsenic Rule
7) Lead and Copper Rule[17]

This section also discusses the assumptions used to estimate burden and costs and describes the change in annual burden, as compared with the 2008 DDBP/Chem/Rads Rules ICR. This ICR updates the annual burdens and costs associated with these rulemakings for January 1, 2012 through December 31, 2014.

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, $2010 labor rate of $20.24 was obtained from the Bureau of Labor Statistics (BLS). An overhead rate of 60 percent was applied, resulting in an hourly rate of $32.38. For States, $2010 labor rate of $27.37 was obtained from the BLS. An overhead rate of 60 percent was applied, resulting in an hourly rate of $43.79.
- PWS inventory figures from the most recent frozen SDWIS database pull (October 2010).
- Number of entry points—data from the 2006 CWSS.
- Number of plants—data from the 2006 CWSS.

In addition, EPA revised some of the estimates of burden for particular activities (e.g., sampling, developing reports) to reflect consultations with representatives of PWSs and States (see section 3(c).

[16] The remaining SWTR requirements are included in the Microbial Rules ICR.

[17] Includes LCR Short-term revisions.

6(a) Respondent Burden

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

The annual PWS burden for January 1, 2012, through December 31, 2014, is estimated to be approximately 3,787,528 hours. Exhibit 7 (at the end of Section 6(b)) shows the annual burden hours on a rule-specific basis. Wherever possible, activity-level burden assumptions were carried forward from previous ICRs. However, if updated data were available (e.g., system inventories, results of consultations on burden), 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 596,454 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)[18]

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.

Note that compliance monitoring for TTHM and HAA5 under the Stage 2 DBPR begins during this ICR period. The ICR for the Stage 2 DBPR accounts for any additional monitoring that may be required on top of that already required for Stage 1, as discussed in the section below.

Section 6(f) describes the reasons for changes between the burden reported in the 2008 DDBP/Chem/Rads Rules ICR and this ICR. Detailed burden and cost calculations for the Stage 1 DBPR are provided in Appendix B.

[18] Includes costs 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 92,526 labor hours, an annual average of 30,842 hours (see Exhibit 7). Note that rule implementation and IDSE activities were completed during the 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 Monitoring

Systems will begin conducting additional routine compliance monitoring during this ICR period. This monitoring is in addition to monitoring required under the Stage 1 DBPR (note that many systems will not be subject to any additional monitoring). The burden for monitoring takes into account any changes in TTHM and HAA5 monitoring requirements resulting from the initial distribution system evaluation conducted during the previous ICR period. Large systems will begin compliance monitoring in Year 7 or 8 following promulgation. If small PWSs conducted *Cryptosporidium* monitoring under the LT2ESWTR, compliance with the Stage 2 MCLs, with the sampling sites determined under the IDSE, will begin in Year 9 following promulgation. If small PWSs did not conduct monitoring for the LT2ESWTR, they must comply with the Stage 2 MCLs with the sampling sites determined under the IDSE in Year 8 following promulgation. Estimated costs and burden are presented in Exhibits 13a through 13c of Appendix C.

Systems with 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 State. Costs for operational evaluations are presented in Exhibit 13 of Appendix C. Systems with operational evaluations will incur costs in the year that the operational level is exceeded. This will begin once systems have 1 year worth of compliance monitoring data, which will occur between Years 7 and 9 following promulgation.

3) Chemical Phase Rules

PWS activities associated with the Chemical Phase Rules account for a burden of 365,561 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 2008 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 14,448 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 2008 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 1,039,257 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 2008 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 2012 through 2014. PWSs monitor arsenic in accordance with the standard monitoring framework schedule. Implementation of the Arsenic Rule is estimated to result in an annual PWS burden of 71,761 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 1,669,205 hours for reporting (including lead service line replacement reporting), recordkeeping, and public education activities of the LCR (which includes the LCR short term revisions). Only CWSs and NTNCWSs incur a burden associated with LCR requirements. The burden accounts for the provisions of the recent 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 lead service lines 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 2008 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 1,946,807 hours. Exhibit 8 (at the end of Section 6(b)) 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 148,335 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 2008 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. States are assumed to have already completed their implementation and IDSE oversight activities.

This burden also includes burden for reviewing operation evaluations. EPA estimates the state burden for reviewing each operational evaluation to be 4 to 8 hours, depending on system size.

3) Chemical Phase Rules

For States, the annual burden associated with the Chemical Phase Rules is estimated to be approximately 1,354,532 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 Model[19] assumptions carried forward from the 1993 PWSS Program ICR. Note that the burden hours associated with oversight of arsenic monitoring are discussed separately below. Section 6(f) describes the reasons for changes between the Chemical Phase Rules burden reported in the 2008 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 1,734 hours. The annual State burden is based on burden assumptions contained in the 2008 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 2008 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 the disinfection 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 disinfection residual monitoring is expected to result in an annual State burden of 150,462 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 2008 DDBP/Chem/Rads Rules ICR. Section 6(f) describes the reasons for changes between the burden reported in the 2008 DDBP/Chem/Rads Rules ICR and this ICR. Detailed calculations for burden and cost are shown in Appendix F.

[19] At the time of developing the 2012 DDBP/Chem/Rads Rules ICR, the 1993 State Workload Model was under revision and new burden estimates were not yet available. New burden estimates from the revised State Workload Model will be incorporated into the subsequent DDBP/Chem/Rads Rules ICR.

6) Arsenic Rule

For the Arsenic Rule, annual State burden is estimated to be 18,765 hours. The annual State burden is based on assumptions carried forward from the 2008 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. Section 6(f) describes the reasons for changes between burden reported in the 2008 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 222,157 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 $350 million, which consists of $120 million in labor costs, $5 million in capital, and $225 million in O&M (numbers may not add due to rounding).

Labor costs are based on the number of burden hours times the average hourly wage rate, including overhead. In addition to labor costs, there are O&M costs associated with the 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 $85 million, which is comprised almost exclusively of labor costs. There are some O&M costs associated with the Lead and Copper Rule ($7,324). There are no primacy agency capital costs associated with this ICR.

Exhibit 7
Annual PWS Burden and Cost January 1, 2012 – December 31, 2014

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	596,454	$19,316	$ 91,817	$ -	$ 111,132	2,048,521
Stage 2 DBPR	30,842	$1,049	$ 3,525	$ -	$ 4,574	13,411
Chemical Phases Rules (Phases II/IIB/V)	365,561	$11,838	$ 70,936	$ -	$ 82,774	521,256
Radionuclides Rule	14,448	$468	$ 2,828	$ -	$ 3,296	28,896
Disinfectant Residual Monitoring and Associated Activities under SWTR	1,039,257	$33,655	$ 50,055	$ 4,984	$ 88,694	8,851,607
Arsenic Rule	71,761	$2,324	$ 1,481	$ -	$ 3,805	20,503
Lead and Copper Rule	1,669,205	$51,742	$ 4,426	$ -	$ 56,168	415,256
TOTAL	**3,787,528**	**$120,392**	**$ 225,068**	**$ 4,984**	**$ 350,444**	**11,899,451**

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

Exhibit 8
Annual Primacy Agency Burden and Cost January 1, 2012 – December 31, 2014

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	148,335	$ 6,496	$ -	$ -	$ 6,496	49,467
Stage 2 DBPR	50,822	$ 2,226	$ -	$ -	$ 2,226	114
Chemical Phases Rules (Phases II/IIB/V)	1,354,532	$ 59,318	$ -	$ -	$ 59,318	565,379
Radionuclides Rule	1,734	$ 76	$ -	$ -	$ 76	28,896
Disinfectant Residual Monitoring and Associated Activities under SWTR	150,462	$ 6,589	$ -	$ -	$ 6,589	172,504
Arsenic Rule	18,765	$ 822	$ -	$ -	$ 822	18,765
Lead and Copper Rule	222,157	$ 9,729	$ 7	$ -	$ 9,736	103,250
TOTAL	**1,946,807**	**$ 85,255**	**$ 7**	**$ -**	**$ 85,262**	**938,376**

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 in Headquarters and EPA Regions to assist States in implementing drinking water regulations. EPA burden and costs for on-going general activities for all EPA drinking water regulations (not just those listed in this ICR) 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.[20]

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

Respondents for this ICR include both PWSs and States or other primacy agencies. This ICR estimates that the number of PWS respondents is 152,979 existing PWSs[21]. 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

[20] 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.

[21] Source: SDWIS/FED Data from October 2010.

57 primacy agencies (50 States plus D.C., U.S. Territories, and the Navajo Nation)[22]. Therefore, the total number of respondents is 153,036.

The total costs and burden for these respondents are summarized in Exhibits 8 and 9. EPA costs and burden are detailed in Section 6(c).

6(e) Bottom Line Burden Hours and Costs

The bottom line burden hours and costs appear in Exhibit 9. The total annual respondent burden associated with this ICR is estimated to be approximately 5,734,335 hours. The total annual respondent costs are estimated to be $436 million. The approximate annual O&M and capital costs are $230 million ($225 million for O&M and $5 million for capital (numbers may not add due to rounding). This represents the "cost burden" as reported in the OMB inventory.

[22] This is a simplifying assumption. Primacy activities for Wyoming and the District of Columbia are actually implemented by the respective EPA Regional offices.

Exhibit 9
Bottom Line Annual Burden and Cost ($K) January 1, 2012 – December 31, 2014

Annual Number of Respondents	**153,036**	(=)	
	152,979	(+)	Existing PWSs
	57		Primacy agencies
Total Annual Responses	**12,837,827**	(=)	
	11,899,451	(+)	PWS responses (see Exhibit 7)
	938,376		Primacy agency responses (see Exhibit 8)
Number of Responses per Respondent	**83.9**	(=)	
	12,837,827	(/)	Total annual responses from above
	153,036		Total annual respondents from above
Total Annual Respondent Hours	**5,734,335**	(=)	
	3,787,528	(+)	PWS responses (see Exhibit 7)
	1,946,807		Primacy agency responses (see Exhibit 8)
Hours per Response	**0.45**	(=)	
	5,734,335	(/)	Total annual respondent hours from above
	12,837,827		Total annual responses from above
Annual O&M and Capital Cost ($K)	**$230,059**	(=)	
	$225,068	(+)	Total PWS O&M costs (see Exhibit 7)
	$4,984	(+)	Total PWS capital costs (see Exhibit 7)
	$7		Total primacy agency O&M costs (see Exhibit 8)
Total Annual Respondent Cost (Labor, Capital, and O&M) ($K)	**$435,706**	(=)	
	$350,444	(+)	For PWSs (see Exhibit 7)
	$85,262		For primacy agencies (see Exhibit 8)
Total Annual Hours (resp. plus Agency)	**5,734,335**	(=)	
	5,734,335	(+)	Total annual respondent hours from above
	-		Total EPA hours
Total Annual Cost (resp. plus Agency) ($K)	**$435,706**	(=)	
	$435,706	(+)	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 explains 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 2008 DDBP/Chem/Rads Rules ICR. See Exhibits 13 through 15.

Exhibit 10 summarizes how each of these changes has affected 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 2008 DDBP/Chem/Rads Rules ICR	6,119,259	6,119,259	This burden serves as the baseline for the 2012 DDBP/Chem/Rads Rules ICR.
Restructuring Adjustments–see Section 6(f)(i)	0	6,119,259	2012 DDBP/Chem/Rads Rules ICR is not appended with burden from any new ICRs.
Other Adjustments to Burden–see Section 6(f)(ii)	(384,924)	5,734,335	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 2008 DDBP/Chem/Rads Rules ICR carried forward as the baseline for 2012 DDBP/Chem/Rads Rules ICR **(includes PWS, State, and EPA burden)**
Add	0	2012 DDBP/Chem/Rads Rules ICR is not appended with burden from any other ICRs.
Total	**5,734,335**	**2012 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 (e.g., PWS inventories) and updating burden to incorporate 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 13 and 14 summarize reasons for these changes and quantify the changes by rule. Burden adjustments associated with PWS activities resulted in a burden decrease of 295,912 hours and are detailed in Exhibit 12. Burden adjustments for primacy agencies result in a decrease of 89,012 hours per year, as shown in Exhibit 13.

Exhibit 12
Adjustments to PWS Burden from Previous ICR Estimates

Activity	Previous Annual Burden Estimate (hours)	2012 Annual Burden Estimate (Hours)	Annual Change in Burden (Hours)	Reason for Change in Annual Burden
Stage 1 DBPR	503,145	596,454	93,309	The increase in burden hours is attributable to the use of updated system inventories, numbers of entry points per system, and percentages of systems disinfecting, all of which are used to calculate monitoring costs. There was also a slight increase in burden due incorporation of consultation results.
Stage 2 DBPR	324,108	30,842	(293,266)	The decrease in burden hours is attributable to the completion of various activities required in the first 6 years after promulgation. Implementation, IDSEs, and monitoring plans were all completed during the previous ICR period.
Chemical Phases Rules (Phases II/IIB/V)	404,751	365,561	(39,190)	The decrease in PWS burden is attributable to a combination of updated system inventories and entry points per system used to calculate monitoring costs.
Radionuclides	35,278	14,448	(20,830)	The decrease in burden is attributable to the fact that many systems only have to monitor every 6 or 9 years and do not have to take samples during this ICR period.
Disinfectant Residual Monitoring and Associated Activities under SWTR	1,013,976	1,039,257	25,281	The increase in burden is attributable to the use of updated system inventories and entry points per system to calculate monitoring costs.
Arsenic Rule	98,735	71,761	(26,974)	The decrease in PWS burden is attributable to a combination of updated system inventories and entry points per system used to calculate monitoring costs. Also, the number of samples decreased from the previous ICR period; the previous period included burden for systems exceeding the MCL and taking quarterly samples for a year before returning to compliance.
Lead and Copper Rule	1,703,448	1,669,205	(34,243)	The decrease in burden is attributable to the use of updated system inventories and data on action level exceedances, as well as updates to and QA of the model.
TOTAL	**4,083,440**	**3,787,528**	**(295,912)**	**Adjusted PWS Burden**

Exhibit 13
Adjustments to Primacy Agency Burden from Previous ICR Estimates

Activity	Previous Annual Burden Estimate (hours)	2012 Annual Burden Estimate (Hours)	Annual Change in Burden (Hours)	Reason for Change in Annual Burden
Stage 1 DBPR	145,168	148,335	3,167	The increase in burden hours is attributable to the use of updated system inventories and entry points per system to calculate monitoring burden, and State burden is based on system burden.
Stage 2 DBPR	29,511	50,822	21,311	The increase in burden hours is attributable to the need for states to oversee compliance monitoring, which begins in 2012.
Chemical Phases Rules (Phases II/IIB/V)	1,354,532	1,354,532	0	The State burden for this rule is based on the State Workload Model, which has not changed.
Radionuclides	4,233	1,734	(2,499)	The decrease in burden is attributable to the fact that many systems only have to monitor every 6 or 9 years and do not have to take samples during this ICR period; State burden is based on system burden.
Disinfectant Residual Monitoring and Associated Activities under SWTR	271,310	150,462	(120,848)	Because total SWTR primacy agency burden is derived from the State Workload Model, a single burden value is given for the SWTR. Therefore, in order to estimate burden for SWTR activities covered under this ICR, burden hours were apportioned based on the relative proportion of burden hours for PWS activities covered under this ICR and the Microbial Rules ICR.
Arsenic Rule	28,210	18,765	(9,445)	The decrease in burden is attributable to a decrease in the system burden; state burden is based on system burden. System burden decreased due to a combination of updated system inventories and entry points per system used to calculate monitoring costs. Also, the number of samples decreased from the previous ICR period; the previous period included burden for systems exceeding the MCL and taking quarterly samples for a year before returning to compliance.
Lead and Copper Rule	202,855	222,157	19,302	The increase in burden is due to updates to and QA of the model.
TOTAL	**2,035,819**	**1,946,807**	**(89,012)**	**Adjusted Primacy Agency Burden**

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

Exhibit 14 shows the affect of these adjustments on the bottom line burden. Subtracting 295,912 hours to account for the adjustment for the PWS burden and 89,012 hours to account for the downward adjustment for the primacy burden yields 5,734,335 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	6,119,259	2008 DDBP/Chem/Rads Rules ICR inventory based on current burden inventories (see Exhibit 11).
Add	(295,912)	Adjustment to the PWS burden carried forward from previous ICRs (see Exhibit 12).
Add	(89,012)	Adjustment to the primacy agency burden carried forward from previous ICRs (see Exhibit 13).
Total	**5,734,335**	**Hours requested in 2012 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 5,734,335 hours, of which 3,787,528 hours are attributable to PWSs and 1,946,807 hours to primacy agencies (numbers may not add due to rounding). 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), EPA 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. Also, you can send comments 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.