



## **Information Collection Request for the Underground Injection Control Program**

**OMB Control No. 2040-0042  
EPA ICR Tracking No. 0370.26**

Office of Water (4606M)  
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# 1. Identification of the Information Collection

## 1(a) Title and Number of the Information Collection

Underground Injection Control Program Information

OMB Control Number: 2040-0042

EPA Tracking Number: 0370.26

## 1(b) Short Characterization

The U.S. Environmental Protection Agency (EPA) will use the information collected upon renewal of this Information Collection Request (ICR) for the monitoring and oversight of the Underground Injection Control (UIC) Program as authorized by the Safe Drinking Water Act (SDWA). The agency developed the UIC Program to establish a federal-state regulatory system to protect actual or potential underground sources of drinking water (USDWs) by ensuring that they are not endangered by the underground injection of fluids. The purpose of this collection is to help EPA effectively manage the UIC Program and ensure the protection of USDWs.

Monitoring and enforcement are primarily achieved through initial, quarterly, semi-annual, and annual reporting requirements. Information is gathered both at the state<sup>1</sup> program level and at the EPA regional level. Each EPA Region has the role of implementing UIC programs for states, tribes, and territories that do not have UIC programs.<sup>2</sup> In addition, each Region must compile and submit information to EPA Headquarters from all respective state UIC primacy programs. This information is submitted in summary reports to EPA Headquarters.

Section 144.6 of Title 40 of the *Code of Federal Regulations* (CFR) describes the six classes of injection wells (see Exhibit 2-1). The UIC regulations specify the information that the owners or operators of various well classes must submit. Class I, II, III, and VI well owners or operators must submit permit applications and completion reports before injection operations begin. Operators of Class I, II, III, and VI injection wells and a small percentage of Class V wells submit monitoring data and test results. Operators of Class I, II, III, and VI wells submit plugging and abandonment reports when they close their wells. Class IV wells are banned—except for wells used to re-inject treated ground water into the same formation from which it was drawn as part of an authorized clean-up; operators of these wells must submit plugging and abandonment reports as the wells are closed. In general, Class IV and V operators submit only a subset of the information required of Class I, II, III, and VI well operators.

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<sup>1</sup> Throughout this ICR, reference to “States” includes Tribes and Territories pursuant to 40 CFR 144.3.

<sup>2</sup> Primary enforcement responsibility (primacy) is vested in states that have UIC programs approved by EPA’s Administrator. “Direct Implementation” (DI) refers to programs in states that are administered directly by EPA regional offices.

Primacy agencies are also respondents in this information collection.<sup>3</sup> EPA collects summary information on permits issued, compliance and enforcement, inspections, mechanical integrity testing, and inventory for all well classes from permitting authorities in primacy states.

EPA estimates that, over the three years covered by this request, the total burden on underground injection well operators and primacy agencies associated with UIC requirements will be 3,876,780 hours (an average of 1,292,260 hours per year), and the present value cost will be \$681,921,777 (an average of \$227,307,259 per year). The public reporting and recordkeeping burden for this collection of information is estimated to average 2.32 hours, or \$408.30 per response annually. The annual burden per respondent is 32.17 hours; the cost per respondent is \$5,658.98. During the course of the ICR clearance period, the EPA evaluates all reporting information and data collections for burden reduction wherever possible to ensure that all information collections are necessary and that they have practical utility for carrying out the mandate to protect USDWs.

Overall, there is a net decrease in annual burden of 421,786 hours between the approved and requested amounts. This decrease is due to changes in the injection well inventory, primarily a significant reduction in the number of Class II and Class VI permit applications expected to be prepared and reviewed; a decrease in the number of Class V inventory forms that are anticipated to be submitted; and a decrease in the number of Class I and VI well operators that will be submitting information. EPA has revised the operator reporting forms, which has resulted in additional burden reductions for operators of all well classes. These decreases are partially offset by increases due to changes in the number of Class III permit applications.

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<sup>3</sup> States that want primacy for any well classes must apply to EPA and provide information about their proposed program as specified at 40 CFR 145.22. (See Section 5(a)(1).) In some states, more than one agency in a state may oversee injection wells of various classes.

## 2. Need For and Use of the Collection

This Section describes EPA's need for the information collected pursuant to this ICR and the EPA Regions' and Headquarters' use of the collected data. Section 2(a) demonstrates both the need and legal authority for the information collection. Need is demonstrated by describing the potential for contamination of USDWs<sup>4</sup> through underground injection activities and the statutory requirements that justify information collection to prevent that contamination. Legal authority is demonstrated by identifying laws and regulations related to waste disposal, injection wells, and the UIC Program. Section 2(b) describes the practical utility and the users of the information; it focuses on how the information is used to accomplish program objectives and manage programs at each level of implementation.

### 2(a) Need/Authority for the Collection

#### *Potential for Contamination*

The fundamental purpose of the UIC Program is to prevent the contamination of USDWs by keeping injected fluids within the well and the intended injection zone. There are five major pathways by which injected fluids can migrate into USDWs. The following discussion describes each pathway and summarizes information collection requirements to monitor for or prevent migration through the pathway.

**Pathway 1: Faulty Well Construction.** Contamination through this pathway is caused by leaks in the well casing or fluid forced upward through channels in the cement between the well's outer casing and the well bore. For this reason, the absence of significant leaks and fluid movement in the well bore must be demonstrated when the well is constructed, and periodically thereafter.

**Pathway 2: Nearby Wells.** Fluids from the pressurized area in the injection zone may be forced upward through wells in the area of injection. Wells that penetrate the injection area in the zone affected by this pressure must be properly constructed or plugged. For this reason, plans for plugging deficient wells in the area of an injection well are submitted with the permit application. In addition, plugging and abandonment reports must be submitted if the operator abandons any well.

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<sup>4</sup> A USDW is defined at 40 CFR 144.3 as an aquifer or its portion which supplies any public water system or which contains a sufficient quantity of ground water to supply a public water system and currently supplies drinking water for human consumption or contains fewer than 10,000 mg/l total dissolved solids and which is not an exempted aquifer.

**Pathway 3: Faults or Fractures in Confining Strata.** Fluids may be forced upward out of the pressurized area through faults or fractures in the confining beds. Activities to address this contamination pathway are tracked using two information collection requirements. First, geologic information submitted with the permit application is reviewed to ensure that wells are sited such that they inject below a confining bed that is free of known open faults or fractures. Second, injection pressures are monitored so that fractures are not propagated in the injection zone or initiated in the confining layer.

**Pathway 4: Direct Injection.** Class IV wells, which inject into or above USDWs and have a high potential to endanger human health, are banned. The exception is wells that are used in a Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-authorized ground water remediation project. Most Class V wells inject nonhazardous fluids into or above formations that contain USDWs. These include motor vehicle waste disposal wells (MVWDWs), cesspools, agricultural drainage wells, storm water drainage wells, industrial drainage wells, and untreated sewage waste disposal wells. EPA has banned the construction of new large-capacity cesspools and requires operators of existing large-capacity cesspools to close their wells, in a regulatory effort to address the Class V wells that pose the greatest risk of endangerment to USDWs. EPA also banned new MVWDWs and required operators of existing MVWDWs in defined ground water protection areas or other sensitive ground water areas to close these wells or apply for a permit to continue injecting.

**Pathway 5: Lateral Displacement.** Fluid may be displaced from the injection zone into hydraulically connected USDWs. Permit information regarding the proximity of injection wells to USDWs is considered by the permitting authority in making a determination of whether the wells are properly sited. Well operators are required to control injection pressure and conduct monitoring to track any lateral migration of fluids.

### ***Legal Authority***

Injection wells are regulated by EPA, as mandated by Sections 1421, 1422, 1423, 1425, 1431, 1445, and 1450 of the SDWA of 1974, as amended. The regulation of hazardous waste injection is jointly authorized by the SDWA and RCRA. The Hazardous and Solid Waste Amendments (HSWA) of 1984 amended RCRA to prohibit the land disposal of hazardous waste unless it can be demonstrated that there will be no migration from the disposal unit for as long as the waste remains hazardous. Underground injection of hazardous wastes is included in Section 3004(k) of HSWA as a land disposal technique.

Under Section 1445 of the SDWA, persons subject to federal or state UIC programs must “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 the Administrator in establishing regulations under this title . . . .”



The specific requirements for the UIC Program are established in Title 40, Sections 144 through 148 of the CFR as follows:

**Section 144 - Underground Injection Control Program.** This section describes the general requirements of the Program, authorizes certain types of wells, defines permitting procedures, and establishes procedures for ensuring financial responsibility for Class I hazardous waste injection wells.

**Section 145 - State UIC Program Requirements.** This section describes the requirements that state programs must meet to receive primacy and the method for obtaining program approval.

**Section 146 - UIC Program: Criteria and Standards.** This section contains the technical criteria and standards that owners or operators of various classes of injection wells must meet. Monitoring and reporting criteria are outlined for each well class.

**Section 147- State UIC Programs.** This section describes the provisions of the UIC programs of individual state, territorial, and tribal primacy programs.

**Section 148 - Hazardous Waste Injection Restrictions.** This section identifies hazardous wastes that are restricted from disposal into Class I hazardous waste injection wells. It outlines the standards and procedures by which Class I hazardous waste facility operators may petition to dispose of restricted hazardous wastes.

These CFR Sections contain information collection requirements that are applicable to operators of underground injection wells and to administrators of primacy and direct implementation (DI) programs. Exhibit 2-1 describes the six classes of injection wells. A discussion of the specific requirements for operators is given in Section 4(b)(1); the paperwork requirements for primacy states as respondents are presented in Section 4(b)(2).

### ***Statutory Requirements***

Section 1421(b) of the SDWA specifies that regulations for state UIC programs must contain minimum requirements for effective programs to prevent underground injection that endangers USDWs. Therefore, EPA must:

- Publish minimum national requirements for effective state UIC programs;
- List states that need UIC programs;
- Review proposed state programs and approve or disapprove them;
- Promulgate regulations and enforce UIC programs in those states that choose not to participate in or do not develop and operate approved programs; and
- Evaluate state/regional UIC programs for effectiveness in meeting statutory and regulatory requirements.

**Exhibit 2-1**  
**Classification of Underground Injection Control Program Wells**

<b>Class I</b>	Wells that inject industrial and municipal waste, including hazardous waste, beneath the lowermost formation containing a USDW.
<b>Class II</b>	Wells used to dispose of fluids which are brought to the surface in connection with oil or natural gas production; to inject fluids for enhanced recovery of oil or natural gas; or to store hydrocarbons.
<b>Class III</b>	Wells that inject fluids for the extraction of minerals including: mining of sulfur by the Frasch process; in situ production of uranium or other metals such as ore bodies that are not conventionally mined; and solution mining of salts or potash.
<b>Class IV</b>	Wells used by generators of hazardous waste or of radioactive waste, or by owners or operators of hazardous waste management facilities, to inject into or above strata that contain a USDW. These wells are banned, unless they are used to re-inject treated contaminated ground water into the formation from which it was drawn in a RCRA/CERCLA authorized cleanup.
<b>Class V</b>	Injection wells not included in Classes I, II, III, IV, or VI. Typical examples include, but are not limited to: agricultural drainage wells, storm water drainage wells, industrial drainage wells, untreated sewage waste disposal wells, motor vehicle waste disposal wells, and cesspools.
<b>Class VI</b>	Wells that inject carbon dioxide (CO <sub>2</sub> ) for long term storage, or geologic sequestration (GS), and that are not experimental in nature.

**2(b) Practical Utility/Users of the Data**

EPA information users include regional and Headquarters staff/managers who make decisions regarding UIC regulations, compliance and enforcement actions, funding for state, tribal, and regional UIC programs, and strategic and policy issues related to the mission of the Office of Ground Water and Drinking Water (OGWDW) and EPA. State primacy agencies and regional DI programs use the summary information reported by owners or operators on the 7520 forms or equivalent forms to target inspection and enforcement activity, to establish permit terms and conditions, to track performance against demands, and to identify violations and assess their significance. In addition, the primacy agency can use the summary reports it supplies to EPA to evaluate its own program activities, such as the number of mechanical integrity tests (MITs) witnessed, the number of inspections conducted, and the number of permit applications reviewed. The well-level data are used in a similar manner, but allow for a more effective analysis and better understanding by all users.

Exhibit 2-2 charts the flow of information from operators, primacy states, and regions to EPA Headquarters. Operators submit data to states (in primacy states), or to EPA regional offices (in DI states). Each primacy agency, in turn, submits summary data to its respective EPA

regional office, which reviews the information and forwards it, along with summary data from its own DI states, to EPA Headquarters. All information in the quarterly, semi-annual, and annual reports received at EPA Headquarters is analyzed and stored. These reports are the data EPA Headquarters relies upon to fulfill the UIC Program's needs and responsibilities. The following sections give a more detailed discussion of the uses of the collected information.

### **EPA's Management of the National Program**

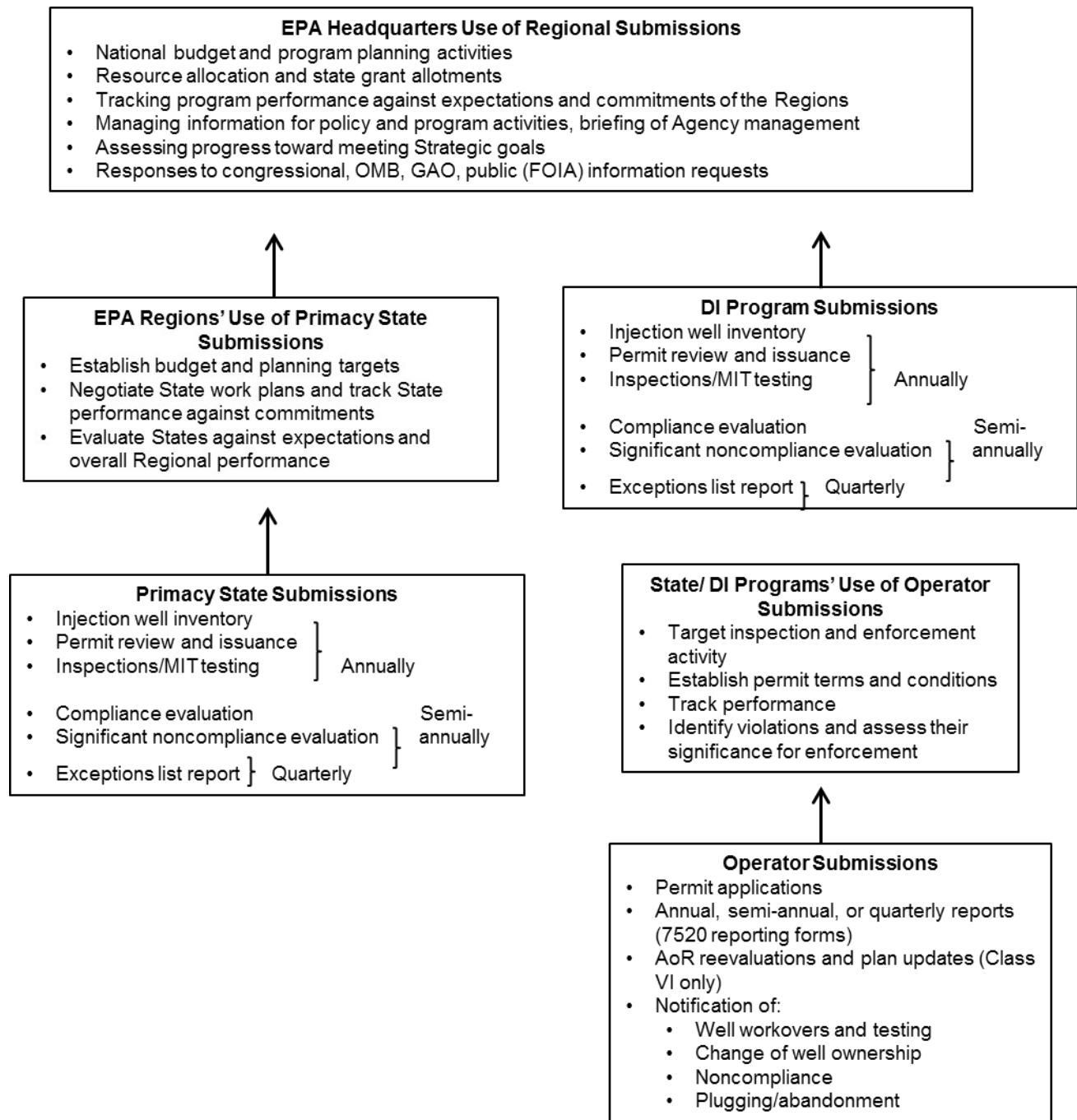
EPA oversees primacy agencies by using the information reported by the Regions and primacy states to track, evaluate, and report on program performance. EPA Headquarters coordinates with its Regions to obtain commitments for performance based on these guidelines. EPA also uses the information to track high priority activities that guide the Regions in carrying out UIC Program objectives and to assess progress toward meeting strategic goals. Performance targets for EPA regional programs are established by EPA and tracked against Government Performance and Results Act (GPRA) goals. This information informs responses to information requests and analyses for EPA management, the Office of Management and Budget (OMB), the General Accounting Office (GAO), Congress, and the public. EPA also uses the reported information for national-level program planning and to set budgets and allocate resources.

In addition to its use for regional oversight purposes, state and regional information is used to justify future program modifications. For example, the information collected may be used to determine if the requirements that pertain to rule-authorized wells or mechanical integrity testing are effective. Primacy state and regional data are used to support or inform these types of decisions.

### **Regional Oversight of Primacy Programs**

The primary use of quarterly, semi-annual, and annual reports submitted by state primacy agencies to the Regions is to help the Regions oversee primacy agencies' performance. The information is used to track individual primacy states' progress against commitments and to ensure that state primacy programs have the ability to take timely and appropriate action in response to direct threats to the public health due to endangerment of USDWs. Like EPA Headquarters, the Regions use UIC data to develop regional operating budgets and program plans, allocate resources, and respond to inquiries.

## Exhibit 2-2 Flow of Information in the UIC Program



Regions also have enforcement responsibilities and use information provided by permitting authorities to track primacy state enforcement response actions for all significant noncompliers, i.e., operators of those injection wells that are most likely to contaminate USDWs. The statutory responsibility to initiate federal enforcement actions may be delegated to a Region if a primacy agency does not fulfill its responsibilities.

The Regions are responsible for reviewing and verifying the information on reports from state primacy agencies before sending them to EPA Headquarters.

## **Regional DI and State Primacy Program Oversight of Well Operators**

States that have been granted UIC program primacy and EPA regional offices that directly implement the UIC Program in states without primacy review information submitted by operators. This information is submitted on the UIC Program's 7520 reporting forms (or state equivalents) or, for Class VI wells, via the Geologic Sequestration Data Tool. Permitting authorities use information submitted by operators as follows:

- Materials submitted with an initial permit application provide the information regional offices need to determine if proposed injection wells will be properly designed, sited, and operated to reduce the risk of USDW endangerment and to establish appropriate permit conditions. The primary responsibility of a regional DI program is to use information submitted prior to and during construction to ensure that injected fluids will remain in the identified injection zone and will not leak into areas that could result in contaminated USDWs.
- Following permit issuance and well completion, the permitting authority uses monitoring and testing reports submitted by operators annually, semi-annually, or quarterly to determine if (1) there is a leak in the casing, tubing, or packer, or (2) there is significant fluid movement into a USDW through vertical channels adjacent to the well bore. Environmental monitoring data required of operators of certain well classes can provide early indication of USDW endangerment. Information on the results of Class VI Area of Review (AoR) reevaluations is reviewed to ensure that all observed/measured project data support the existing AoR delineation.
- Information on the plugging of injection wells is used to ensure that a well will not serve as a conduit for fluid movement into USDWs following cessation of injection.

Primacy and DI programs maintain detailed data about each well that they oversee, and use this information to focus efforts on injection wells in need of enforcement attention. The permitting authority reviews testing and monitoring reports to track the performance of the project and, if necessary identify violations, assess their significance for enforcement, and target inspection and enforcement activities. Operators who have been out of compliance for at least two consecutive quarters are identified on the exceptions list.

### **3. Nonduplication, Consultations, and Other Collection Criteria**

This Section describes how EPA has no other means available to gather the requested information. It also describes EPA's solicitation of public comments in the *Federal Register* and agency consultations in developing the burden and cost estimates; describes how less frequent reporting may lead to the endangerment of USDWs; and discusses the Paperwork Reduction Act (PRA) general guidelines and provisions for confidentiality.

#### **3(a) Nonduplication**

Well-specific data obtained from injection well operators and the primacy state reports that rely on such data comprise virtually all of the information covered by this ICR. To the best of the EPA's knowledge, this information is not required or collected by any other agency or any other regulation. The Department of Energy does collect information relating to production for enhanced oil and gas recovery wells in its "Annual Report for Enhanced Oil Recovery (EOR) Incentive" (OMB Clearance No. 19054135). This information pertains only to oil production, and is related to, but different from, the information EPA uses to evaluate injection well operators. However, on a case-by-case basis, permitting authorities may use this information to supplement existing information on Class II EOR wells.

Since both Class I hazardous and Class IV wells (which are banned) involve the injection of hazardous wastes, there is potential overlap between the UIC regulations under SDWA and hazardous waste regulations promulgated under RCRA. Historically, the regulations established provisions for RCRA interim status (Part A permit) [40 CFR 270.64] for Class I hazardous wells in states in which no UIC program had been approved or promulgated. The regulations allow the UIC permit to be issued in lieu of a Part B RCRA permit if the Class I hazardous waste well meets certain conditions specified in 40 CFR 270.64(c). Thus, although Class I hazardous waste wells are co-regulated under RCRA and the SDWA, there is no duplication of information collection between RCRA and the UIC Program.

Data requirements for Class VI wells under the Class VI Rule have some overlap with those associated with the Mandatory Reporting of Greenhouse Gases [GHG]: Injection and Geologic Sequestration of CO<sub>2</sub> Rule (Subpart RR), 40 CFR Part 98. In developing the two rules, staff of the Office of Air and Radiation and the UIC Program coordinated to consider and minimize the potential overlap in reporting and recordkeeping requirements on operators of wells that may be subject to both rules. Burden and costs associated with air monitoring are accounted for under Subpart RR and therefore are not incorporated into this UIC Programmatic ICR. To avoid duplication, EPA provides flexibility to allow owners or operators of Class VI wells to use the same submittals to meet the requirements to submit a monitoring, reporting, and verification plan under Subpart RR and certain elements of a Class VI Testing and Monitoring Plan. Additionally, some Class VI owners or operators may inject CO<sub>2</sub> that is subject to the Conditional Exemption from RCRA Definition of Hazardous Waste for Carbon Dioxide Streams

Injected into Class VI UIC Wells at 40 CFR 261.4(h). Owners or operators who claim that a CO<sub>2</sub> stream is exempt under 40 CFR 261.4(h) must sign a certification statement that the CO<sub>2</sub> is being injected and stored pursuant to the requirements of the Class VI Rule. None of the information in the certification statement duplicates information required by the UIC regulations.

### **3(b) Public Notice**

EPA published a notice requesting comment on the burden and cost associated with the UIC Program reporting requirements in the *Federal Register* on June 6, 2018 (83 FR 26281). EPA received two comments, both of which were out of the scope of the ICR burden and cost estimates. A copy of the *Federal Register* notice of this information collection is attached to this ICR as Appendix B.

### **3(c) Consultations**

Over the course of the ICR development, EPA solicited input from interested parties on revising the UIC Program ICR on assumptions used, which impact the burden calculation, and suggestions for burden reduction, among other topics. EPA evaluates the effects of combining, simplifying, or eliminating some of the 7520 forms or reducing the frequency at which primacy agencies report this information to EPA each time the agency renews the ICR. See Section 3(d) and Appendix C.

### **3(d) Effects of Less Frequent Collection**

There are two types of respondents for whom efforts could be made to minimize burden: (1) operators of injection wells and (2) state primacy agencies. The paragraphs below describe why it is necessary to collect the information at the required frequency to ensure the protection of USDWs, as well as ways that EPA has identified to reduce the burden on primacy states while ensuring the continued protection of USDWs.

#### **Operators**

All Class I, II, III, and VI operators are required to observe pressure, flow, and cumulative volume of injected fluids and demonstrate mechanical integrity. Some operators must sample and analyze their injectate and conduct ambient monitoring. These requirements provide permitting authorities with crucial information to assess whether injection wells pose a risk of endangerment to USDWs. In developing the required monitoring and testing frequencies, EPA attempted to strike a balance between ensuring protection of USDWs and placing an excessive burden on operators.

The frequency at which operators must conduct various monitoring and testing activities varies with the potential for the activities associated with a particular well class to endanger USDWs. Periodic monitoring that is specific to the potential risk to USDWs based on the injection activity allows the permitting authority—and owners or operators—to ensure that the



project is operating as designed and the well is operating the way it was engineered. Less frequent monitoring and testing might allow injection wells to operate in a manner that could threaten or cause considerable damage to USDWs if evidence of such a situation were to not be discovered for a long time, e.g., by allowing mechanical integrity defects to allow leakage of fluids out of the well. EPA determined that the specified monitoring frequencies for each well class are at the minimum protective frequency.

Injection well operators also submit information associated with permit renewals. Operating permits are renewed or reviewed at varying intervals (typically every five to 10 years, depending on the well class); Class VI project reviews are associated with AoR reevaluations. This frequency of review is necessary to provide permitting authorities an opportunity to review facility operations to ensure that injection operations will not endanger USDWs.

### **Primacy Agencies**

Several years ago, EPA began a burden reduction initiative to address primacy state concerns over escalating reporting requirements, accompanied by decreases in federal funding. UIC reporting was identified as one of the agency's 16 priority areas for burden reduction. Primacy states asked EPA to eliminate duplicative reporting, reduce reporting frequency, and reduce the data elements requested. In evaluating the state and operator input, EPA determined that very few, if any data elements, could be removed from the 7520 forms that primacy states submit to EPA while still ensuring maintenance of a robust UIC program that tracks information crucial to the protection of USDWs. However, in 2013, EPA was able to reduce reporting frequency in response to the states' requests.

### **3(e) General Guidelines**

Three provisions of the UIC regulations exceed the PRA guideline for response time. Pursuant to 40 CFR 144.51(l), 144.28(b) and 146.94(b), operators are required to report within 24 hours "any noncompliance which may endanger health or the environment." This is an emergency provision necessary to enable permitting authorities to take timely and appropriate steps to reduce or eliminate any potential threat to public health.

### **3(f) Confidentiality**

Operators of injection wells may claim confidentiality, as provided in 40 CFR 144.5 *Confidentiality of Information*. If confidentiality is requested, the information is treated in accordance with the provisions of 40 CFR Part 2, *Public Information*. Any confidentiality claim must be made at the time of submission in the manner prescribed by the application form or its instructions. In the case of other submissions, respondents may claim confidentiality by stamping the words "confidential business information" on each page containing such information.

Claims of confidentiality for the following information will be denied: the name and address of any permit applicant or permittee; and information regarding the existence, absence,

or level of contaminants in drinking water. If no claim of confidentiality is made at the time of submission, EPA may make the information available to the public without further notice. However, the information is collected for the agency's internal use and there are no plans to routinely release or publish any of the data.

### **3(g) Sensitive Questions**

There are no sensitive questions pertaining to this ICR.

## 4. Respondents and Information Requested

This Section identifies respondents affected by this information collection and describes the data items and activities required of operators, primacy states, and DI programs.

### 4(a) Respondents/NAICS Codes

Operators of injection wells are identified by Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. Operator respondents for underground injection wells are categorized by the industries that produce fluid wastes and the type of fluid injected into each well class. The SIC and NAICS codes for the operator respondents associated with each well class are listed in Exhibit 4-1.

The NAICS code for state agencies that include drinking water programs is 92411 (Administration of Air and Water Resources and Solid Waste Management Programs) or 92312 (Administration of Public Health Programs).

**Exhibit 4-1  
Respondents' SIC/NAICS Codes\***

UIC Class	SIC Code	NAICS Code (2002)	Description
I	<ul style="list-style-type: none"> <li>• Major Group 13</li> <li>• Major Group 28</li> <li>• Major Group 26</li> <li>• Major Group 29</li> <li>• Major Group 32</li> <li>• Major Group 33</li> <li>• Major Group 36</li> <li>• Major Group 37</li> <li>• Major Group 45</li> <li>• Major Group 49</li> <li>• Major Group 89</li> <li>• Major Group 99</li> </ul>	<ul style="list-style-type: none"> <li>• 211</li> <li>• 325</li> <li>• 322</li> <li>• 324</li> <li>• 327</li> <li>• 331</li> <li>• 335</li> <li>• 336</li> <li>• 481</li> <li>• 221</li> <li>• 54162</li> <li>• 54169</li> </ul>	<ul style="list-style-type: none"> <li>• Oil and Gas Extraction</li> <li>• Chemical Manufacturing</li> <li>• Paper Manufacturing</li> <li>• Petroleum and Coal Products Manufacturing</li> <li>• Nonmetallic Mineral Product Manufacturing</li> <li>• Primary Metal Manufacturing</li> <li>• Electrical Equipment, Appliance, &amp; Component Mfg.</li> <li>• Transportation Equipment Manufacturing</li> <li>• Air Transportation</li> <li>• Utilities</li> <li>• Environmental Consulting Services</li> <li>• Other Scientific and Technical Consulting Services</li> </ul>
II	<ul style="list-style-type: none"> <li>• 1311</li> <li>• 1321</li> <li>• 1381</li> </ul>	<ul style="list-style-type: none"> <li>• 211111</li> <li>• 211112</li> <li>• 213111</li> </ul>	<ul style="list-style-type: none"> <li>• Crude Petroleum and Natural Gas Extraction</li> <li>• Natural Gas Liquid Extraction</li> <li>• Drilling Oil and Gas Wells</li> </ul>
III	<ul style="list-style-type: none"> <li>• Major Group 10</li> <li>• Major Group 14</li> </ul>	<ul style="list-style-type: none"> <li>• 212</li> </ul>	<ul style="list-style-type: none"> <li>• Mining (except Oil and Gas)</li> </ul>
IV	<ul style="list-style-type: none"> <li>• 4953</li> </ul>	<ul style="list-style-type: none"> <li>• 562</li> </ul>	<ul style="list-style-type: none"> <li>• Waste Management and Remediation Services</li> </ul>

UIC Class	SIC Code	NAICS Code (2002)	Description
V	<ul style="list-style-type: none"> <li>• 01, 02, 074, 075</li> <li>• 4789, 4953, 9511</li> <li>• 7542</li> <li>• 7033, 9111</li> <li>• 4142, 4212, 4213, 4581, 5015, 5511, 5521, 5531, 5541, 7514, 7515, 7532, 7533, 7537, 7538, 7539, 7549, 9111</li> </ul>	<ul style="list-style-type: none"> <li>• 111, 112, 54194, 11521</li> <li>• 488999, 562213, 562219, 92411</li> <li>• 811192</li> <li>• 7212, 92111</li> <li>• 441, 484, 485, 488, 562, 811, 44711, 44719, 45299, 48841, 92111, 532111, 532112</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural or storm drainage wells</li> <li>• Domestic wastewater disposal wells</li> <li>• Car washes</li> <li>• Recreational vehicle parks and campsites, executive offices (e.g., state parks and campgrounds)</li> <li>• Bus charter services, trucking, airports, flying fields, and airport terminal services; motor vehicle parts; motor vehicle dealers; auto and home supply stores; gasoline service stations; passenger car rental or leasing; automotive repair and services; executive offices</li> </ul>
VI	<ul style="list-style-type: none"> <li>• 4911</li> <li>• 4911</li> <li>• 2911</li> </ul>	<ul style="list-style-type: none"> <li>• 221112</li> <li>• 211111</li> <li>• 324110</li> </ul>	<ul style="list-style-type: none"> <li>• Fossil fuel electric power generation</li> <li>• Crude petroleum and natural gas extraction</li> <li>• Petroleum refining</li> </ul>

\* Note: this list is not totally inclusive, but represents a large portion of the industries that operate injection wells.

## 4(b) Information Requested

### 4(b)(1) Data Items, Including Recordkeeping, Required from Operators

Operators submit required information to their permitting authority using the 7520 reporting forms (or state equivalents). Permitting authorities use this information to verify that the well is sited and constructed in a manner that will prevent endangerment of USDWs; following commencement of injection, they use testing and monitoring data submitted by well operators to determine if the well has mechanical integrity or provide early indication of USDW endangerment. See Exhibit 4-2.

Operators may sometimes attach additional information to the forms to provide all of the required information. Required data items vary according to well class and authorization category (i.e., permitted well vs. rule-authorized well). The information required of operators is listed in Exhibit 4-3.

### Initial Reporting Requirements

Two methods are available for obtaining approval for underground injection: rule authorization and permitting. Class II enhanced recovery (II-R) and hydrocarbon storage wells (II-H) in existence before the promulgation of specific permitting regulations are authorized by rule for the life of the well and do not require permits. All new Class I, II, III, and VI wells require permits. Most new Class V wells may be rule-authorized, although operators of some Class V wells may be required to obtain permits.

**Exhibit 4-2  
Operator Reporting Forms**

<b>Form</b>	<b>Well classes responding</b>	<b>When submitted</b>	<b>Purpose</b>
7520-6: UIC Permit Application	I, II, III, V	Before well construction	Provides the UIC Program Director information to determine whether proposed injection wells will be properly designed, sited, and operated to reduce the risk of USDW endangerment.
7520-7: Application to Transfer Permit	I, II, III	Occasionally, during the permit term	Ensures that the Director has current information on who owns/operates the well.
7520-8: Injection Well Monitoring Report	I, III	During injection operations	Provides information to demonstrate that the well has mechanical integrity or provide early indication of USDW endangerment.
7520-11: Annual Disposal/Injection Well Monitoring Report	II	During injection operations	Provides information to demonstrate that the well has mechanical integrity or provide early indication of USDW endangerment.
7520-16: Inventory of Injection Wells	V	Before well construction	Provides information to ensure that the Director is aware of the presence of a Class V well.
7520-17: Pre-Closure Notification Form	V	Before the well is plugged	Provides information to ensure that a Class V well will be plugged in a manner that will not allow it to become a conduit for fluid movement
7520-18: Completion Form for Injection Wells	I, II, III	Following well construction	Provides information to verify that the well was constructed as described in the UIC permit/ensure that injected fluids will remain in the identified injection zone.
7520-19: Well Rework, Plugging & Abandonment Plan, or Plugging & Abandonment Affidavit	I, II, III	Before well construction; occasionally during the permit term; following plugging	Provides information to ensure that well maintenance activities will be conducted in a manner that does not compromise the well's mechanical integrity; or that the well will be plugged in a manner that will not allow it to become a conduit for fluid movement.

### *Rule-Authorized Wells*

Wells in existence before the promulgation of specific permitting regulations are authorized by rule until regulations require them to be permitted. To meet initial reporting requirements, operators of rule-authorized wells are required to submit inventory information (i.e., facility name; name and address of the facility's legal contact; ownership status; and operating status of the injection well) to the permitting authority using Form 7520-16 (or a state-developed equivalent form). Operators must also submit a plugging and abandonment plan and information regarding financial responsibility (this requirement does not apply to rule-authorized Class V wells). Authorization terminates if the operator fails to supply any required information or if the well loses mechanical integrity or contaminates a USDW.

### *Permitted Wells<sup>5</sup>*

Operators of permitted wells must follow a two-step permit application procedure. The operator must submit a permit application (via form 7520-6 or a state equivalent) prior to construction, and a completion report (form 7520-18, or state equivalent) before commencing injection. (Instead of submitting a completion report, owners or operators of Class VI wells must submit final site characterization information before commencing injection.) Operators must include the following information with their permit applications:

- ***Inventory Information:*** name of the facility, name and address of legal contact, ownership of facility, NAICS/SIC code(s), and a description of the activities requiring a permit [all well Classes];
- ***List of Landowners:*** a list of landowners within one-quarter mile of the facility (in DI programs) [all well Classes];<sup>6</sup>
- ***Area of Review Methods:*** methods and calculations used to determine the area of review (AoR) [Classes I, II, III, and VI];
- ***Maps of Wells/Area of Review:*** a tabulation of all wells within the AoR (within one-quarter mile of the well, or within 2 miles of a Class I hazardous well, or as defined by computational modeling for a Class VI well) that penetrate the injection zone or the confining zone [Classes I, II, III, and VI];
- ***Corrective Action Plan:*** a plan for corrective action for wells within the AoR that are not properly plugged [Classes I, II, III, and VI];
- ***Geologic and Hydrogeologic Data:*** maps and cross sections of USDWs, and data (including maps and cross sections) on the local and regional geology of the confining zone [Classes I, III, and VI] or names and depths of USDWs [Class II];

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<sup>5</sup> Permits may be issued on an area basis or on an individual basis, except for hazardous waste injection wells and Class VI wells. Refer to Section 5(b) for a description of how the permitting process minimizes the information burden on owners and operators.

<sup>6</sup> This requirement may be waived if the Regional Administrator determines that it is too burdensome (e.g., if the well is located in a populated area).

**Exhibit 4-3  
Operator Paperwork Requirements**

Information Submitted	Class					
	I-H	I-N	II	III	V *	VI
Inventory Information					X	
<b>Permit Application</b>						
List of Landowners	X	X	X	X	X	X
Area of Review Methods	X	X	X	X		X
Maps of Wells/Area of Review	X	X	X	X		X
Corrective Action Plan	X	X	X	X		X
Maps and Cross Sections of USDWs	X	X		X		X
Names and Depths of USDWs			X			
Maps and Cross Sections of Local and Regional Geology	X	X		X		X
Geologic Data on Injection and Confining Zones			X			X
Proposed Operating Data	X	X	X	X		X
Proposed Formation Testing Program	X	X		X		X
Proposed Stimulation Program	X	X		X		X
Proposed Injection Procedures	X	X		X		X
Construction Details	X	X	X			X
Changes in Injected Fluid				X		X
Plans for Well Failures/Emergency and Remedial Response Plan	X	X		X		X
Ambient Monitoring Program	X	X		X		X
Plugging and Abandonment Plan	X	X	X	X		X
Financial Assurance	X	X	X	X		X
Post Injection Site Care Plan						X
Aquifer Exemption Request (if needed)	X	X	X	X		X
Injection Depth Waiver Application						X
<b>Completion Report</b>						
Results of Logs and Tests Performed During Construction	X	X	X	X		X
MIT Results	X	X	X	X		X
Anticipated Maximum Injection Pressure & Flow Rate	X	X	X	X		X
Formation Testing Results	X	X	X	X		X
Actual Injection Procedure	X	X	X	X		X
Hydrogeologic Compatibility/ Compatibility of Well Materials	X	X		X		X
Status of Corrective Action	X	X	X	X		X
<b>Monitoring and Reporting</b>						
Chemical Composition of Injectate	X	X	X	X	X	X
Injection Pressure, Volume, & Flow Rate	X	X	X	X		X
MIT Results	X	X	X	X		X
Ambient Ground Water Quality Monitoring Results	X	X		X		X
Pressure Fall-Off Test Results	X	X				X
CO <sub>2</sub> Plume and Pressure Front Tracking Data						X
<b>Recordkeeping</b>						
Retain Monitoring, Testing, Permitting Records	X	X	X	X	X	X
<b>Closure</b>						
Closure Report	X	X	X	X		X

\* Operators of rule-authorized Class V wells will submit inventory information only; Class V wells that are issued permits will be subject to the other paperwork requirements listed.

- **Proposed Operating Data:** a description of the proposed operation, including rates and volumes of fluids to be injected, injection pressures, and sources and constituent analyses of injection fluids [Classes I, II, III, and VI];
- **Proposed Formation Testing Program:** a description of the proposed formation testing program [Classes I, III, and VI, optional for Class II];
- **Proposed Stimulation Program:** a description of the proposed stimulation program [Classes I, III, and VI, optional for Class II];
- **Proposed Injection Procedures:** a description of the proposed injection procedure [Classes I, III, and VI, optional for Class II];
- **Construction Details:** construction plans, including schematic drawings of the surface and subsurface details of the system [Classes I, II, and VI];
- **Changes in Injected Fluid:** expected changes in pressure, native fluid displacement, and direction of movement of injected fluid [Classes I, III, and VI];
- **Plans for Well Failures:** plans for contingency action in the case of shut-ins or well failures [Classes I and III, optional for Class II] or an Emergency and Remedial Response Plan [Class VI];
- **Ambient Monitoring Program:** planned ambient monitoring, including the location of monitoring wells and monitoring devices and the proposed sampling frequency [Classes I, III, and VI, optional for Class II] and how Class VI operators will monitor the position of the CO<sub>2</sub> plume and pressure front;
- **Plugging and Abandonment Plan:** plans for closing the well, including the type and placement of the plugs to be used on form 7520-19 or a state equivalent [Classes I, II, and III] or Well Plugging and Post Injection Site Care (PISC) and Site Closure Plans [Class VI]; and
- **Financial Assurance:** evidence of financial responsibility for closing the well [Classes I, II, III, and VI] and for corrective action, PISC, and emergency and remedial response [Class VI].

Upon approval of the permit application, the operator may begin to construct the well. Following construction, the operator must submit a completion report prior to being authorized to inject. Completion reports must include the following information:

- Results of deviation checks, and other logs and tests [Classes I, II, III, and VI];
- Demonstration of mechanical integrity (i.e., the results of a casing pressure test; radioactive tracer survey of the bottom-hole cement; and/or temperature, noise, or other logs to check for movement along the borehole) [Classes I, II, III, and VI];
- Anticipated maximum injection pressure and flow rate [Classes I, II, III, and VI];
- The results of formation fluid sampling, and testing of the injection and confining zones [Classes I, II, III, VI];



- Actual injection procedures [Classes I, II, III, and VI];
- Report on hydrogeologic compatibility and the compatibility of well materials [Classes I, III, and VI];
- The status of corrective action on deficient wells within the AoR [Classes I, II, III, and VI]; and
- The final delineated AoR and any updates to the required project plans based on computational modeling of the AoR [Class VI].

Operators of Class I hazardous waste injection wells (i.e., that are seeking an exemption from the prohibition from injecting any of the Class I listed hazardous wastes) must submit the following information in addition to the information described above:

- ***No Migration Petition.*** Operators of Class I hazardous waste injection wells must demonstrate, usually by computer modeling, that their wastes will not endanger USDWs. The operator must provide sufficient information to demonstrate that the hazardous constituents of wastes will not migrate from the injection zone. In particular, the petition must prove that the waste will not reach beyond the top of the injection zone or escape through a conduit within the injection zone within 10,000 years. This is also known as the Fluid Flow Petition. A chemical fate demonstration may also be submitted to satisfy this requirement.
- ***Report on Hydrogeologic Compatibility/Compatibility of Well Materials.*** Operators of Class I hazardous waste injection wells must demonstrate hydrogeologic compatibility (i.e., that the waste stream and its anticipated reaction products will be compatible with both the geologic material of the injection zone and any previously injected fluids), and compatibility of well materials (i.e., that the waste stream will be compatible with the well materials that come in contact with the waste).
- ***Waste Analysis Plan.*** Class I hazardous waste well operators must develop and follow an approved waste analysis plan that describes procedures for a detailed chemical and physical analysis of a representative sample of their waste. The waste analysis plan must specify: (1) the parameters within which the waste will be analyzed and the rationale for selecting these parameters; (2) the test methods that will be used to test for these parameters; and (3) the sampling method that will be used to obtain a representative sample of the waste to be analyzed.
- ***Other Information.*** Operators of Class I hazardous waste wells must also submit a description of the hydrogeologic and geochemical conditions at the site; the physicochemical nature of the waste stream; and proof of conformance with AoR requirements.

Class V facilities generally are rule-authorized. Permitting authorities may require some Class V operators to apply for a permit to commence or to continue injecting. Typically, the

permit application process for Class V operators is less complex than for other well classes—operators are typically required to submit a description of the activities requiring a permit, inventory information, topographic maps, and a plugging and abandonment plan that includes a demonstration of financial responsibility for closure.

Operators of Class VI wells must submit and gain approval for a series of project-specific plans, including: an Area of Review and Corrective Action Plan, a Testing and Monitoring Plan, an Injection Well Plugging Plan, a PISC and Site Closure Plan, and an Emergency and Remedial Response Plan. In addition, applicants seeking to inject CO<sub>2</sub> for geologic storage above or between USDWs must apply for an injection depth waiver; this application is separate from, but submitted at the same time as, the Class VI permit application.

Operators of Class I, Class II, or Class III wells seeking to inject into an aquifer that meets the definition of a USDW and is not exempted must request and receive an aquifer exemption. This request includes a delineation of the area proposed for exemption and a demonstration that the request meets the criteria at 40 CFR 146.4. (Owners or operators of Class VI wells transitioning from Class II EOR wells may apply to expand the areal extent of existing Class II aquifer exemptions; new aquifer exemptions for Class VI wells are prohibited however.)

### **Monitoring and Testing Requirements**

All Class I, II, III, and VI well operators must observe injection pressure, rate, and cumulative volume and demonstrate mechanical integrity. Requirements for other monitoring and testing activities vary by class. Specific UIC monitoring and testing activities include:

- Monitor injection pressure, flow rate, and cumulative volume of injected fluids [continuously for Class I hazardous and Class VI, weekly for Class II disposal wells (II-D), monthly for Class II-R, and semi-monthly for Class III] and temperature of injected fluids and annulus pressure between the tubing and the long string casing [Class I];
- Conduct chemical monitoring of injectate as described in a waste analysis plan or as specified by the permitting authority [Classes I, II, III, VI, and permitted Class V MVWDWs];
- Test for internal and external mechanical integrity of the well casing, via:
  - Casing pressure test [annually for Class I hazardous and Class VI, every five years for Class I nonhazardous, Class II, and Class III salt solution mining];
  - Radioactive tracer survey of the bottom-hole cement [annually for Class I hazardous];

- Temperature, noise, or other logs to test for movement of fluid along the borehole [annually for Class VI, every five years for Class I and Class III salt solution mining];<sup>7</sup>
  - Continuous monitoring of injection pressure, volume, and rate to demonstrate internal mechanical integrity [Class VI]; and
  - Casing inspection log to evaluate the internal condition of a well's casing, if required by the Director [Class I hazardous and Class VI].
- Conduct ambient monitoring, including:
    - Ground water quality monitoring [annually for Class I, semi-monthly for active Class III wells and monthly for Class III facilities in restoration, and per the approved Testing and Monitoring Plan for Class VI];
    - A pressure fall-off test [annually for Class I and VI];
    - Sludge monitoring [annually in permitted Class V MVWDWs]; and
    - CO<sub>2</sub> plume and pressure front tracking using direct methods and indirect methods, unless the Director determines this is not feasible given site-specific geologic conditions [Class VI].

### **Reporting and Recordkeeping Requirements**

All operators of permitted and rule-authorized wells must report to primacy state or DI agencies on the results of required monitoring and testing (using form 7520-8 or 7520-11, or state equivalents).<sup>8</sup> In addition, operators must notify the permitting authority of any planned changes to the facility; changes that may result in noncompliance; progress in meeting the milestones of a compliance schedule; any loss of mechanical integrity or other indication of possible endangerment of a USDW; or any noncompliance with permit conditions within 24 hours. Operators must also notify the permitting authority if they plan to work over the well (using form 7520-19 or a state equivalent) or of a transfer their permit (via form 7520-7 or a state equivalent).

Scheduled reporting requirements include the following:

- Class I hazardous well operators report quarterly on monitoring results; and annually on MITs and to update their plugging and abandonment cost estimates.
- Class I nonhazardous well operators are required to report quarterly on injectate monitoring, annually on ambient monitoring, and on MITs every five years.

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<sup>7</sup> Alternative MIT methods (e.g., review of cementing record) may be approved by the Director.

<sup>8</sup> In accordance with the Paperwork Reduction Act of 1995, the reporting requirements covered by this information collection are consistent with the reporting and recordkeeping activities currently in practice by the respondents. For example, respondents generally may report required information in either electronic or hard-copy format, whichever is compatible with their facility practices.

- Class II operators must report monitoring data annually, and on MITs every five years.
- Class III operators report quarterly on monitoring and on MITs every five years.
- Class V MVWDW operators that obtain a permit must report annually on injectate and sludge monitoring.
- Class VI well operators must submit semi-annual reports.

Owners or operators of Class VI wells must also reevaluate the AoR at least every five years and submit a report to the permitting authority. Following the reevaluation, operators must update the AoR and Corrective Action Plan, Testing and Monitoring Plan, and Emergency and Remedial Response Plan based on the results of the revised AoR, or submit information that no updates to the plans are necessary.

For rule-authorized wells in DI states, the Regional Administrator may require operators to submit additional information, as needed, to determine if a well poses a risk of endangerment to USDWs. Such information may include evidence of ground water monitoring, including periodic reports of such monitoring; periodic reports on analysis of injected fluids; or a description of the geologic strata through and into which injection is taking place.

Operators must maintain monitoring information, calibration and maintenance records, required reports, application data, and monitoring results for three years; and keep their most recent plugging and abandonment cost estimate for one year.

### **Closure Requirements**

When closing their wells, operators must submit to the permitting authority a plugging and abandonment report demonstrating that the well was plugged in accordance with the plugging and abandonment plan (this requirement does not apply to rule-authorized Class V wells). Operators who choose to plug their wells in a manner different from the one specified in their plugging and abandonment plan must first submit and obtain approval for a revised plugging and abandonment plan.

Class I hazardous waste well operators must also conduct a pressure fall-off test and demonstrate mechanical integrity before plugging the well, and report the results of these tests with their closure reports.

Owners or operators of Class IV and endangering Class V wells will submit a pre-closure notification form (via form 7520-17 or a state equivalent) before plugging their wells.

Additionally, Class VI well operators must revise their PISC and Site Closure Plans or demonstrate that no revision is needed; conduct and report the results of post-injection ground water quality monitoring and the position of the CO<sub>2</sub> plume and pressure front throughout the PISC period; complete a non-endangerment demonstration that, based on monitoring and other

site-specific data, the project does not pose an endangerment to USDWs prior to receiving authorization to perform site closure activities; and submit a site closure report, including a copy of the notation on the property deed regarding the fact that injection occurred.

#### **4(b)(2) Data Items Including Recordkeeping, Required from Primacy States and DI Programs**

Primacy agencies and DI programs submit information on wells within their jurisdiction to EPA Headquarters to target inspection and enforcement activities, track performance against demands, and identify violations and assess their significance. The following types of information are submitted:

- Permit Review and Issuance (7520-1): Information on permit determinations (i.e., the number of permits issued and not issued, and permit modifications), permit file reviews, the number of rule-authorized wells reviewed, AoR reviews, and corrective action performed. (Submitted annually.)
- Compliance Evaluation (7520-2A): Summary of enforcement actions, including administrative actions and civil and criminal actions. (Submitted semi-annually.)
- Compliance Evaluation - Significant Noncompliance (7520-2B): Summary information on operators identified as being in significant noncompliance (SNC) with requirements and enforcement actions against SNCs and returns of wells to compliance; contamination of USDWs; and closures. (Submitted semi-annually.)
- Mechanical Integrity Test/Remedial Actions (7520-3): Results of inspections and MITs and remedial actions conducted for any test failures. (Submitted annually.)
- Quarterly Exceptions List (7520-4): Summary information on wells that have remained in SNC for two or more consecutive quarters and have not been returned to compliance or been subject to a formal enforcement action. (Submitted quarterly.)
- Inventory: Class-specific numbers of injection wells and sites. (Submitted annually.)

## **5. Information Collected: EPA Activities, Collection Methodology, and Information Management**

Section 5(a) describes primacy state oversight of operators and EPA activities related to program management. Section 5(b) describes how EPA will manage the information collected; Section 5(c) discusses how this information collection addresses the needs of small businesses; and Section 5(d) presents EPA's justification for the information collection schedule.

### **5(a) Primacy State and Agency Activities**

#### **5(a)(1) State Primacy Agency Activities**

Under Section 1422 of the SDWA, states that adopt UIC regulations that are at least as stringent as the federal requirements may be granted primacy for the UIC Program. Under SDWA Section 1425, state programs that regulate oil and gas-related injection activities must demonstrate that their program "represents an effective program to prevent underground injection which endangers drinking water sources" in order to be granted primacy.

In addition to the reporting activities described in Section 4(b)(2), state primacy agencies are responsible for permitting the wells within their states. Primacy agencies receive and review permit applications from operators, solicit and respond to public comments, and issue final decisions on permit applications. State primacy agencies also review completion reports and associated testing results to verify that wells have been constructed in accordance with the permit.

State primacy agencies review injectate and ambient monitoring data and the results of MITs and pressure fall-off tests submitted by operators. They also respond to occasional reporting submitted by operators, conduct periodic permit reviews, and respond to operators' requests for permit modifications. State primacy agencies also review information submitted by owners or operators related to plugging their injection wells. Many state primacy agencies witness some or all MITs and well plugging performed by operators.

State primacy agencies also report to EPA on the status of their programs, including program summary information and well inventories. EPA plans to develop a web-based reporting system by which primacy states will report all of this information (including information formerly submitted on the paper-based 7520 forms).

## **5(a)(2) Agency Activities**

EPA Regions oversee injection wells in those states, tribes, and territories that do not have approved primacy programs. The Regions that directly implement UIC programs perform the same types of owner or operator oversight activities as state primacy agencies. In addition, regional offices review no-migration petitions submitted by Class I hazardous facility operators and requests for aquifer exemptions submitted by owners or operators in both primacy and DI states. Regional staff also review reports on MITs and pressure fall-off tests performed in DI states, and in some cases, tests on wells in primacy states.

EPA Headquarters activities consist of compiling the regional summary information on permit reviews and issuance, compliance evaluation, enforcement and inspections information, and inventory data. EPA also processes applications submitted by states seeking UIC program primacy.

## **5(b) Collection Methodology and Management**

Current reporting from injection well owners or operators to primacy states/DI programs is primarily accomplished by completing the UIC Program's 7520 reporting forms. The complete set of PDF-format 7520 reporting forms is available to be downloaded on OGWDW's website (<http://water.epa.gov/type/groundwater/uic/reportingforms.cfm>), as well as on GSA's website. (Appendix D of this ICR contains copies of all the UIC reporting forms.)

Primacy and DI programs maintain detailed data about each well that they oversee. Collection of data from individual operators and quality assurance is the responsibility of the individual primacy state and DI programs. These data are the source of summary information submitted to the Regions and EPA Headquarters for oversight and program management. Most primacy/DI programs use some type of electronic data management system to maintain this data to meet their specific programmatic needs.

EPA developed a data system to collect and manage operator data on Class VI wells. The Geologic Sequestration Data Tool (GSDT) supports organizing and retaining the large volume of material related to Class VI permit application reviews and subsequent project oversight activities. All data, including permit applications, operating data, and testing and monitoring data, is submitted directly to the GSDT by owners or operators, as required at 40 CFR 146.91(e).

Electronic reporting from primacy states to EPA involves transmitting UIC data in a standard electronic format to support compilation and evaluation of that data without manual data entry. Electronic reporting supports the agency's effort to streamline the UIC Program by reducing the reporting burden on primacy states and improving EPA's data collection and management. State primacy agencies have reported UIC inventory data through a secure website for several years. EPA plans to develop a web-based reporting system by which primacy states

will report the information formerly collected via the paper-based 7520 forms. (States also have the option to report this information using the paper-based reporting forms.)

## **5(c) Small Entity Flexibility**

In this section, EPA discusses how this information collection addresses the needs of the 29,780 injection well operators that EPA estimates are small businesses and EPA's efforts to reduce the burden on small entities.

Few, if any, operators of Class I, Class III, or Class VI injection wells are small businesses. In contrast, many Class II, Class IV, and Class V operators affected by this collection are small entities. The EPA reduces, to the extent practicable and appropriate, the burden of this collection on persons that provide information to or for the agency, including with respect to small entities, as defined by the Regulatory Flexibility Act [5 USC 601(6)], using techniques such as:

- Establishing differing compliance or reporting requirements or timetables that take into account the resources available to those who are to respond;
- Clarification, consolidation, or simplification of compliance and reporting requirements; or
- Exempting operators from the collection of information, or any part thereof.

EPA undertook significant efforts in 2018 to evaluate and, where appropriate, streamline or simplify the reporting forms that owners or operators of injection wells submit. For additional information on this burden reduction initiative, see Appendix C.

### **Class I**

The size standard the Small Business Administration uses to define "small business" varies by SIC code. Class I wells typically involve the following SIC codes:

- Major Group 13 (oil and gas extraction);
- Major Group 28 (chemicals and allied products);
- Major Group 26 (paper and allied products);
- Major Group 29 (petroleum and coal products);
- Major Group 32 (stone, clay and glass products);
- Major Group 33 (primary metal industries);
- Major Group 36 (electrical and electronic machinery);
- Major Group 37 (transportation equipment);
- Major Group 45 (transportation by air);
- Major Group 49 (electric, gas, and sanitary services);
- Major Group 89 (services not elsewhere classified); and
- Major Group 99 (non-classifiable establishments).



The small business size standards for firms in these SIC code groups vary from 500 to 1,500 employees, except for SIC code 4953, hazardous waste disposal firms that own and operate Class I wells, for which the size standard is \$3.5 million or less in revenues. Most of the firms that own or operate Class I injection wells exceed both the 500-employee and the 1,500-employee standard. Examples include Allied Chemical, Bethlehem Steel, Dow Chemical, DuPont, Exxon, General Electric, Monsanto, and Shell. The hazardous waste disposal firms that own and operate Class I wells are anticipated to exceed the \$3.5 million revenue standard.

## **Class II**

Oil and gas extraction firms fall into three SIC categories:

- SIC code 1311 (crude petroleum and natural gas);
- SIC code 1321 (natural gas liquids); and
- SIC code 1381 (drilling oil and gas wells).

All of these categories have small business size standards of 500 employees. According to Dun and Bradstreet Market Analysis Profile, more than 90 percent of the firms in these SIC codes are small businesses, using the 500-employee standard. Even though many of the operable Class II injection wells are owned and operated by large businesses, industry observers believe that as many as half of the Class II wells are owned and operated by firms that are below the 500-employee size standard.

Section 1421 of the SDWA states that regulation of Class II wells must be kept to a minimum, while ensuring that USDWs will not be endangered. Recognizing this intent, EPA has minimized reporting requirements for Class II wells in the following ways: first, while operators of Class I and Class III wells report injection fluid characteristics quarterly, Class II operators report this information annually. Second, Class I monitoring requirements include the installation and use of continuous recording devices to monitor injection pressure, flow rate, volume, and annulus pressure [40 CFR 146.13]. In contrast, Class II operators are only required to observe injection pressure, flow rate, and cumulative volume and to record these measurements at least monthly [40 CFR 146.23].

The UIC regulations [40 CFR 146.14, 146.24, 146.34] define the information the UIC Program Director must consider in authorizing Class I, II, and III wells, respectively. Less information is required about Class II wells than other types of wells. For permitting of Class I and Class III wells, maps and cross sections detailing geologic structure may be required, whereas Class II well operators must provide only a description of geologic conditions. Finally, while the permitting authority may require Class I operators to provide detailed construction procedures, including a cementing program; logging procedures; deviation checks; and a drilling, testing, and coring program, Class II well operators need not submit this information.

EPA has also recognized the needs of Class II well operators in other ways. For example, oil and gas wells are often temporarily abandoned, especially by small businesses that operate at marginal production rates. To accommodate this situation, the regulations specify that cessation of operation does not require plugging (and associated information collection) until two years have elapsed.

Many of the changes to the reporting forms that EPA made as part of the burden reduction efforts of 2018 benefit Class II well owners or operators. Notably, EPA clarified the instructions to the permit applications that Class II owners or operators must complete. These changes will help permit applicants improve the quality of their submittals and potentially reduce the need for revisions/corrections to their permit application. This will streamline the permitting process, save burden, and reduce the total time needed to complete the application process. EPA also significantly reduced the number of elements that Class II owners or operators must report associated with well completions; this resulted in a nearly 20 percent savings to owners or operators of Class II wells associated with completion reporting. See Appendix C.

### **Class III**

Operators of this class of wells fall into the following categories:

- SIC Major Group 10 (metal mining) and
- SIC Major Group 14 (mining and quarrying of non-metallic minerals).

The size standard for both groups is 500 or fewer employees. EPA understands that the operators of these wells are large, diversified corporations, well above the size standard of 500 employees.

## **Class IV, Endangering Class V, and Class V**

EPA estimates that nearly all owners or operators of these wells are small businesses. EPA has attempted to keep recordkeeping, reporting, and other administrative requirements for these operators to a minimum in order to provide regulatory relief to small entities while protecting drinking water supplies. Operators of Class IV and endangering Class V facilities that close their wells must only submit a brief report with basic information about the closure activities performed. Most Class V facilities do not have collection requirements other than to provide inventory information, and EPA's recent efforts to streamline the reporting forms has reduced the inventory burden to these operators. The changes to the inventory (7520-16) and pre-closure notification forms (7520-17) that EPA implemented in 2018 reduced the annual burden to Class V owners or operators by 2,901 hours. See Appendix C.

## **Class VI**

EPA expects that Class VI wells will be owned and operated by fossil fuel power generators, oil and gas extraction companies, oil and gas refineries, and industrial facilities (e.g., ethanol facilities, iron and steel manufacturers, and cement processors). Because the resources necessary to construct injection wells that meet the standards of the Class VI Rule are significant, EPA believes that none of the owners or operators of Class VI wells will be small entities. Therefore, EPA assumes that the reporting requirements for Class VI well owners or operators will cause no significant impact on small entities.

### **5(d) Collection Schedule**

EPA developed the schedule for information collection and reporting to minimize the amount of information collected while ensuring that sufficient information is available for appropriate and timely oversight, evaluation, and enforcement to ensure the protection of USDWs. The rationale for operator and primacy state reporting frequencies is described below. Section 4 presents a complete description of the collection requirements and associated frequencies.

#### **5(d)(1) Operator Reporting**

In determining the reporting schedule for each class of wells, EPA considered the potential for the activities performed by each well class to endanger USDWs. Operators of Class I, III, and some Class V wells must report monitoring results quarterly; Class II operators report annually; and Class VI operators report semi-annually. The regular reporting of these data is essential to protecting USDWs. Specific operator reporting schedules for each well class are presented in Tables A-1 through A-6 of Appendix A.

## 5(d)(2) Primacy State Reporting

Per 40 CFR 144.8, permitting authorities must submit information about the number of permits issued, enforcement actions, operators identified as being in SNC, inspections and MITs performed, and wells that have remained in SNC for two or more consecutive quarters. Exhibit 5-1 summarizes the frequencies at which state primacy agencies must report this UIC summary data to EPA. The paragraphs following the Exhibit present the justification for the reporting frequencies.

In response to President Clinton's April 24, 1995, directive to reduce regularly scheduled reporting frequencies by one-half, except in cases where such action would not adequately protect the environment, in FY 1996, EPA reduced the frequency of certain primacy state UIC reporting. EPA has also discontinued the requirement that primacy states submit the grant utilization form (7520-5). Beginning in 2018, EPA no longer collects Program Activity Measures data related to Class I, II, and III salt solution wells that lose mechanical integrity and are returned to compliance within 180 days and the closure of MVWDWs and large capacity cesspools.

### Exhibit 5-1 Primacy State Reporting Frequencies

Reporting Activity	Frequency
Permit Review and Issuance (7520-1)	Annual
Compliance Evaluation (7520-2A)	Semi-annual
Compliance Evaluation for Significant Noncompliance (7520-2B)	Semi-annual
Mechanical Integrity Test/Remedial Actions (7520-3)	Annual
Quarterly Exceptions List (7520-4)	Quarterly
Inventory Reporting	Annual

**Permit Review and Issuance.** Permits are the core of the UIC Program, and annual permit information is used for program management purposes. The Program uses permit information to evaluate events that delay or accelerate the permitting process. Delays in the permitting process may result in the primacy states' inability to meet program objectives and prevent states from meeting schedules. A permitting process that is too lengthy could have a detrimental impact on industry. Conversely, favorable developments may occur that enable primacy states to meet time schedules and goals sooner than anticipated. Both occurrences have a potential for shifts in workload and resource distribution.

**Compliance Evaluation; Significant Noncompliance.** The justification for semi-annual reporting of compliance information is based on EPA efforts to be routinely and frequently informed of violations of regulations in effect under Section 1421 of the SDWA. EPA must remain informed in order to: (a) oversee and encourage primacy states' actions on resolving violations or enforcing against violators, and (b) take direct federal action where appropriate primacy state actions have not occurred in a timely manner or have not been successful.

EPA would be unable to effectively carry out the Congressional direction for federal enforcement on violators if it only had access to data annually. Prior to 1987, state primacy agencies provided EPA with the above information on an annual basis. Primacy states then agreed to voluntarily supply the data on a quarterly basis when it became clear that EPA Headquarters could not direct an effective federal enforcement program using data received only once a year. EPA later determined that semi-annual reporting of this information is sufficiently frequent to track compliance information.

**Inspections/Mechanical Integrity Testing.** Inspections are the principal method of identifying instances of noncompliance. Annual inspection information is used to ensure that inspections are being performed on a continual basis throughout the year. The MIT is the principal method used to determine whether a well is operating in a protective manner, and annual MIT information is used to evaluate these activities.

**Quarterly Exceptions List.** EPA needs quarterly information on significant noncompliance (i.e., operators that have been out of compliance for two or more consecutive quarters) to determine whether timely and appropriate actions have been taken by primacy authorities and to track enforcement activities, since wells that are out of compliance pose the greatest risk of endangerment to USDWs.

**Inventory Reporting.** Annual reporting on inventory data, as required by 40 CFR 144.8, is necessary for effective oversight of the UIC Program. Primacy agencies, Regions, and EPA Headquarters need to be routinely and frequently informed of changes in the number and operating characteristics of injection wells to monitor and regulate underground injection effectively and to continue protecting USDWs from contamination.

## **6. Estimating the Burden and Cost of the Collection**

This section presents EPA's estimates of the burden and costs to respondents (i.e., injection well operators and state primacy agencies) associated with UIC paperwork requirements, and federal burden hours and costs for reviewing respondent submissions. Section 6(a) provides estimates of burden hours for all respondent types. Section 6(b) contains estimates of respondent costs for the information collection. Section 6(c) summarizes the burden and costs to the federal government as users of respondent data. Section 6(d) describes the respondent universe and the total burden and cost of this collection to respondents. Section 6(e) covers aggregate burden hours and costs for all respondents, and Section 6(f) explains the reasons for the change in estimated respondent burden hours and costs from the approved ICR burden. Section 6(g) presents the burden statement for this information collection.

### **6(a) Respondent Burden**

#### **6(a)(i) Burden to Owners and Operators of Injection Wells**

Operators of injection wells incur reporting burden associated with the following types of activities: permitting and startup of operations, ground water and injectate monitoring and well testing during well operation, reporting of monitoring results and other events, recordkeeping, and well closure. Non-labor costs include capital and operation and maintenance costs (e.g., to purchase well components or analyze samples to comply with the UIC requirements) and the costs of retaining contractors to perform certain activities. These are primarily operators' costs; primacy states and EPA regulators would typically not incur such costs.

EPA estimates that the annual burden on the 40,109 owners or operators of injection wells will be 1,141,294 hours over the three years covered by this ICR. This is presented in Exhibits 6-1A through F, and summarized in Exhibit 6-1G. See Appendix A for details on the assumptions used to estimate the owner/operator burden and cost.

#### *Class I Well Operators*

The total annual burden on the 436 operators of Class I wells nation-wide is estimated to be 124,114 hours. See Exhibit 6-1A. Of this total, EPA estimates the annual burden for the 74 operators of Class I hazardous wells to be 27,626 hours, and the burden for the 362 operators of Class I non-hazardous wells to be 96,488 hours annually.

The requirements for Class I operators are among the most stringent in the UIC Program. Operator activities associated with Class I facilities include permitting and start-up related reporting, permit renewals and modifications, monitoring, reporting and recordkeeping, and closure-related paperwork. Operators of Class I hazardous wells must also perform an extensive no-migration demonstration and associated activities to ensure that their wastes will not endanger USDWs. Appendix A summarizes the assumptions used to calculate the owner/operator burden and provides detailed burden and cost calculations. Table A-1 of Appendix A presents cost and burden estimates specific to Class I wells.

Exhibit 6-1A Annual Burden and Cost Associated with Class I Wells 2019-2021							
Respondent Type	Burden (hours)	Labor Cost	Non-Labor Cost	Total Cost	Responses	Burden/Response	Cost/Response
Operators	124,114	\$6,107,337	\$37,443,580	\$43,550,916	6,568.6	18.90	\$6,630.19
Primacy States	6,058	\$264,829	\$0	\$264,829	2,133.0	2.84	\$124.16
DI Programs	5,835	\$255,065	\$0	\$255,065	595.1	9.81	\$428.62
<b>TOTAL</b>	<b>136,007</b>	<b>\$6,627,231</b>	<b>\$37,443,580</b>	<b>\$44,070,811</b>	<b>9,296.6</b>	<b>14.63</b>	<b>\$4,740.51</b>

Note: numbers may not appear to total due to rounding.

### *Class II Well Operators*

As shown in Exhibit 6-1B, EPA estimates the total annual burden on the 18,020 operators of Class II wells (associated with the oil and natural gas industry) to be 908,583 hours. Class II well operators perform many of the same types of activities as Class I well owners or operators, including submitting permit applications and completion reports, monitoring and testing, reporting and recordkeeping, and closure-related paperwork, although with significantly less information and paperwork required per operator for each of these activities.

See Appendix A (particularly Table A-2) for details on the assumptions used to calculate the owner/operator burden and cost associated with meeting the requirements for Class II wells.

Exhibit 6-1B Annual Burden and Cost Associated with Class II Wells 2019-2021							
Respondent Type	Burden (hours)	Labor Cost	Non-Labor Cost	Total Cost	Responses	Burden/Response	Cost/Response
Operators	908,583	\$41,873,053	\$112,852,321	\$154,725,375	416,777.3	2.18	\$371.24
Primacy States	64,732	\$2,829,570	\$0	\$2,829,570	77,622.9	0.83	\$36.45
DI Programs	3,394	\$148,367	\$0	\$148,367	5,014.3	0.68	\$29.59
<b>TOTAL</b>	<b>976,709</b>	<b>\$44,850,990</b>	<b>\$112,852,321</b>	<b>\$157,703,312</b>	<b>499,414.5</b>	<b>1.96</b>	<b>\$315.78</b>

Note: numbers may not appear to total due to rounding.

### *Class III Well Operators*

The estimated total annual burden on the 225 operators of Class III facilities is 72,464 hours. See Exhibit 6-1C. Operators of these wells associated with mining operations incur burden associated with permit applications and completion reports, monitoring, reporting and recordkeeping, and closure-related paperwork.

Appendix A (particularly Table A-3) presents details on the assumptions used to calculate the owner/operator burden and cost associated with the requirements for Class III wells.

**Exhibit 6-1C  
Annual Burden and Cost Associated with Class III Wells  
2019-2021**

<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Operators	72,464	\$3,132,610	\$2,530,060	\$5,662,670	7,737.1	9.37	\$731.89
Primacy States	2,706	\$118,283	\$0	\$118,283	1,178.6	2.30	\$100.36
DI Programs	184	\$8,032	\$0	\$8,032	48.5	3.79	\$165.60
<b>TOTAL</b>	<b>75,353</b>	<b>\$3,258,925</b>	<b>\$2,530,060</b>	<b>\$5,788,985</b>	<b>8,964.2</b>	<b>8.41</b>	<b>\$645.79</b>

Note: numbers may not appear to total due to rounding.

*Class IV/Endangering Class V Well Operators*

Class IV wells and Class V wells that are found to be endangering USDWs are banned from injection, and owners of these wells are required to close them and submit plugging and abandonment reports to the permitting authority. The exception to the ban is for those Class IV wells used to inject contaminated ground water that has been treated and re-injected into the same formation from which it was drawn. These wells are authorized by rule for the life of the well if such subsurface emplacement of fluid is approved by EPA or a primacy state pursuant to the provisions for the cleanup of releases under CERCLA or RCRA. EPA assumes that endangering Class V wells include those MVWDWs and large capacity cesspools that are identified and closed each year (as reported via SDW-08).

EPA estimates that the burden on the 659 operators of the wells that are subject to this information collection will be 6,503 hours annually. See Exhibit 6-1D and Appendix A.

**Exhibit 6-1D  
Annual Burden and Cost Associated with Class IV/Endangering Class V Wells  
2019-2021**

<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Operators	6,503	\$165,832	\$0	\$165,832	1,318.7	4.93	\$125.76
Primacy States	508	\$22,192	\$0	\$22,192	507.7	1.00	\$43.71
DI Programs	152	\$6,629	\$0	\$6,629	151.6	1.00	\$43.71
<b>TOTAL</b>	<b>7,163</b>	<b>\$194,653</b>	<b>\$0</b>	<b>\$194,653</b>	<b>1,978.0</b>	<b>3.62</b>	<b>\$98.41</b>

Note: numbers may not appear to total due to rounding.



### *Class V Well Operators*

The total annual burden on the 20,755 operators of Class V wells with reporting requirements under this information collection is estimated to be 24,871 hours. See Exhibit 6-1E and Appendix A.

All operators of Class V wells must submit inventory information before they may begin operating their wells, and a small number of Class V well owners or operators will submit permit applications each year. In addition, owners or operators of MVWDWs who obtained permits under the 1999 Class V Rule will continue to monitor ground water and sludge and submit the results to the permitting authority.

<b>Exhibit 6-1E Annual Burden and Cost Associated with Class V Wells 2019-2021</b>							
<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Operators	24,871	\$601,812	\$8,424,763	\$9,026,574	28,159.9	0.88	\$320.55
Primacy States	8,143	\$355,934	\$0	\$355,934	14,553.6	0.56	\$24.46
DI Programs	3,238	\$141,558	\$0	\$141,558	6,221.3	0.52	\$22.75
<b>TOTAL</b>	<b>36,252</b>	<b>\$1,099,304</b>	<b>\$8,424,763</b>	<b>\$9,524,066</b>	<b>48,934.7</b>	<b>0.74</b>	<b>\$194.63</b>

Note: numbers may not appear to total due to rounding.

### *Class VI Well Operators*

EPA estimates that the burden on the three Class VI well operators subject to this information collection during the clearance period will be 4,759 hours annually.

Owners or operators of Class VI wells must submit permit applications and perform start-up-related reporting, demonstrate financial responsibility, perform monitoring and testing, conduct AoR reevaluations and associated plan revisions during injection operations, and conduct closure and post-injection site care related activities. See Exhibit 6-1F and Appendix A.

<b>Exhibit 6-1F Annual Burden and Cost Associated with Class VI Wells 2019-2021</b>							
<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Operators	4,759	\$482,019	\$7,094,834	\$7,576,853	42.7	111.36	\$177,305.45
Primacy States	1,058	\$46,240	\$0	\$46,240	2.7	396.69	\$17,340.00
DI Programs	872	\$38,110	\$0	\$38,110	7.4	117.82	\$5,149.94
<b>TOTAL</b>	<b>6,688</b>	<b>\$566,368</b>	<b>\$7,094,834</b>	<b>\$7,661,202</b>	<b>52.8</b>	<b>126.67</b>	<b>\$145,098.53</b>

Note: numbers may not appear to total due to rounding.

Exhibit 6-1G summarizes the operator burden and costs, by well type (from Exhibits 6-1A through F). Exhibit 6-3, in the next section, provides a similar summary for primacy agencies.

<b>Exhibit 6-1G</b>							
<b>Summary of Annual Operator Burden and Cost (based on above exhibits)</b>							
<b>2019-2021</b>							
<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Class I Operators	124,114	\$6,107,337	\$37,443,580	\$43,550,916	6,568.6	18.90	\$6,630.19
Class II Operators	908,583	\$41,873,053	\$112,852,321	\$154,725,375	416,777.3	2.18	\$371.24
Class III Operators	72,464	\$3,132,610	\$2,530,060	\$5,662,670	7,737.1	9.37	\$731.89
Class IV Operators	6,503	\$165,832	\$0	\$165,832	1,318.7	4.93	\$125.76
Class V Operators	24,871	\$601,812	\$8,424,763	\$9,026,574	28,159.9	0.88	\$320.55
Class VI Operators	4,759	\$482,019	\$7,094,834	\$7,576,853	42.7	111.36	\$177,305.45
<b>TOTAL</b>	<b>1,141,294</b>	<b>\$52,362,663</b>	<b>\$168,345,558</b>	<b>\$220,708,221</b>	<b>460,604</b>	<b>2.48</b>	<b>\$479.17</b>

Note: numbers may not appear to total due to rounding.

As noted in Section 4(b), owners or operators use the 7520 reporting forms (or state equivalents) to submit much of the information required by the UIC regulations. The burden to owners or operators associated with each form is presented in Exhibit 6-2. Note that, due to the separate but related processes for calculating the burden for complying with each element of the UIC regulations (as described in this ICR) and developing the burdens reported on the forms, the total burden in Exhibits 6-1G and 6-2 differ. See Appendix A for details about the specific activities included in the burden and cost estimates.

Exhibit 6-2: Annual Reporting Burden by Form (Operators) 2019-2021						
Form	Well classes responding	Unit burden/ response	Number of responses	Total burden (this class)	Total burden (this form)	Notes
7520-6: UIC Permit Application	I-H	215	8	1,251	58,200	The number of responses equals the number of permit applications/year; not all applicants perform all permit application-related activities, so these numbers may not appear to total.
	I-NH	104	14	1,389		
	II	61	1,289	52,505		
	III	123	18	2,019		
	V	104	10	1,036		
7520-7: Application to Transfer Permit/Ownership	I-H	2.9	1	3	1,301	The ICR assumes that a portion of the occasional notifications to the Director are permit transfer applications.
	I-NH	3.9	1	4		
	II	4.7	270	1,262		
	III	5.8	6	33		
7520-8: Quarterly Injection Well Monitoring Report	I-H	24.7	295	7,293	53,206	Responses are quarterly by all operators.
	I-NH	14.4	1,448	20,847		
	III	27.9	900	25,066		
7520-11: Annual Class II Disposal/Injection Well Monitoring Report	II	29.7	5,316	157,969	157,969	
7520-16: Inventory of Injection Wells	V	0.4	19,276	6,827	6,827	
7520-17: Class V Pre-Closure Notification Form	V	1.4	659	899	899	Number of responses includes closures of Class IV/endangering Class V wells.
7520-18: Completion Report for Injection Wells	I-H	3.9	8	32	4,157	The number of responses equals the number of permit applications/year; not all applicants perform all completion-related activities, so these numbers may not appear to total.
	I-NH	3.9	14	55		
	II	3.3	1,228	4,001		
	III	3.9	18	70		
7520-19: Well Rework, Plugging & Abandonment Plan, or Plugging & Abandonment Affidavit	I-H	6.1	9	52	9,276	Numbers may not appear to total because: (1) not all respondents perform all of the plugging activities described in the ICR (particularly Class II); and (2) the ICR estimates that a small number of operators will submit occasional rework notifications each year (incurring a slightly lower unit burden than shown).
	I-NH	6.1	15	89		
	II	6.0	1,559	8,961		
	III	7.9	24	174		
Notes: Numbers may not appear to total due to rounding. Class VI well operators report via the Geologic Sequestration Data Tool.						

### 6(a)(ii) Burden to Primacy Agencies

EPA estimates that the annual **oversight burden** on the 59 state primacy agencies that oversee the various classes of injection wells is 83,205 hours. This burden is for evaluating permit applications and completion reports, reviewing monitoring and testing data, and responding to closure reports and other notifications submitted by operators in their states.

The burden to **primacy states as respondents** associated with compiling and reporting data to EPA totals 67,762 hours annually.

Exhibit 6-3 shows the annual primacy agency burden hours associated with oversight of each class of injection well and for providing information to EPA. Appendix A describes the basis for the burden estimates. Exhibit 6-4 presents the burden to primacy states associated with each 7520 state reporting form.

**Exhibit 6-3  
Annual Primacy Agency Burden and Cost  
2019-2021**

<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Class I Programs	6,058	\$264,829	\$0	\$264,829	2,133.0	2.84	\$124.16
Class II Programs	64,732	\$2,829,570	\$0	\$2,829,570	77,622.9	0.83	\$36.45
Class III Programs	2,706	\$118,283	\$0	\$118,283	1,178.6	2.30	\$100.36
Class IV Programs	508	\$22,192	\$0	\$22,192	507.7	1.00	\$43.71
Class V Programs	8,143	\$355,934	\$0	\$355,934	14,553.6	0.56	\$24.46
Class VI Programs	1,058	\$46,240	\$0	\$46,240	2.7	396.69	\$17,340.00
<b>Subtotal-Operator Oversight</b>	<b>83,205</b>	<b>\$3,637,048</b>	<b>\$0</b>	<b>\$3,637,048</b>	<b>95,998.5</b>	<b>0.87</b>	<b>\$37.89</b>
States as Respondents	67,762	\$2,961,991	\$0	\$2,961,991	767.0	88.35	\$3,861.79
<b>TOTAL</b>	<b>150,966</b>	<b>\$6,599,038</b>	<b>\$0</b>	<b>\$6,599,038</b>	<b>96,765.5</b>	<b>1.56</b>	<b>\$68.20</b>

Note: numbers may not appear to total due to rounding.

**Exhibit 6-4: Annual Reporting Burden by Form (Primacy States)  
2019-2021**

<b>Form</b>	<b>Unit burden/response</b>	<b>Number of responses</b>	<b>Total burden</b>
7520-1: Report on Permit Review and Issuance (Annual)	4.5	59	266
7520-2A: Report on Compliance Evaluation (Semi-annual)	6.0	118	708
7520-2B: Report on Compliance Evaluation for Significant Noncompliance (Semi-annual)	5.5	118	649
7520-3: Report on Mechanical Integrity Tests/Remedial Action (Annual)	5.0	59	295
7520-4: Report on Quarterly Exceptions (Quarterly)	2.0	236	472

## **6(b) Respondent Costs**

### **6(b)(i) Cost to Operators**

Exhibits 6-1A through F and 6-1G show the total costs for owners and operators of various classes of injection wells over the three-year ICR clearance period. Annual costs to injection well operators are estimated at approximately \$220.7 million, which consists of \$168.3 million in non-labor costs and \$52.4 million in labor costs.

EPA determined operator labor cost by estimating the mix of legal, managerial, technical,

and clerical time needed to perform each collection activity. For Classes I, II, and III, the labor cost estimate is based on average hourly estimates for salary and overhead of \$103 for legal staff, \$90 for managerial staff, \$49 for technical staff, and \$30 for clerical staff. For Classes IV and V, hourly salary and overhead rates are estimated to be slightly less: \$26 for legal staff, \$59 for managerial staff, \$27 for technical staff, and \$21 for clerical staff (no legal staff labor is assumed for these operators). For Class VI, the labor cost estimate is based on average hourly estimates for salary and overhead of \$103 for mining and geological engineers and \$99 for geoscientists.

EPA estimated non-labor costs based on input from staff in EPA Regions and state primacy agencies, and from operators and other sources. This ICR assumes there are no capital costs to operators—large capital expenditures (e.g., construction costs and monitoring equipment) are considered to be customary business practice. All non-labor costs to operators associated with this collection are operating and maintenance (O&M) costs, such as the cost of contractor services or laboratory fees associated with injectate, sludge, or ground water monitoring. Contractor time was estimated to be approximately \$98 per hour.

### **6(b)(ii) Cost to State Primacy Agencies**

Exhibit 6-3 shows that the annual cost to primacy agencies (as overseers of injection well owners or operators and as reporters to EPA) is estimated at approximately \$6.6 million, all of which is labor cost. For this ICR, EPA assumed that the average hourly labor rate for a state employee is \$43.71. This estimate is based on a federal GS-9, Step 10 salary on the 2018 federal pay scale, increased by 60 percent to account for overhead costs. (This is the inflation factor recommended in EPA's *ICR Handbook*.)

### **6(c) Agency Burden and Costs**

EPA's regional offices implement the UIC Program for Classes I through V in eleven states and have oversight responsibility for a subset of well classes in eight states and two tribes. Additionally, EPA assumes that, at the beginning of the clearance period, the agency will directly implement the Class VI program in all states, except one. The paperwork requirements for DI programs are roughly the same as those for the state primacy programs. In addition, EPA regions review all no-migration petitions submitted by Class I hazardous facility operators, all aquifer exemption requests, and Class VI injection depth waivers in both primacy and DI states in their Region.

EPA Headquarters' activities associated with oversight of the national UIC Program include gathering, reviewing, and analyzing state primacy program summary data, and well inventory data.

The total annual burden for federal DI programs associated with the above activities is 17,835 hours. See Exhibit 6-5.

EPA assumes the average hourly labor rate for salary and overhead and benefits for agency staff to be \$43.71. This estimate is based on a federal GS-9, Step 10 salary on the 2018

federal pay scale, increased by 60 percent to account for overhead costs. The annual federal cost associated with this collection is \$779,603 (all of which is labor cost). The breakdown of agency cost associated with each well class is presented in Exhibit 6-5.

<b>Exhibit 6-5 Annual Agency Burden and Cost 2019-2021</b>							
<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Class I DI Programs	5,835	\$255,065	\$0	\$255,065	595.1	9.81	\$428.62
Class II DI Programs	3,394	\$148,367	\$0	\$148,367	5,014.3	0.68	\$29.59
Class III DI Programs	184	\$8,032	\$0	\$8,032	48.5	3.79	\$165.60
Class IV DI Programs	152	\$6,629	\$0	\$6,629	151.6	1.00	\$43.71
Class V DI Programs	3,238	\$141,558	\$0	\$141,558	6,221.3	0.52	\$22.75
Class VI DI Programs	872	\$38,110	\$0	\$38,110	7.4	117.82	\$5,149.94
Headquarters Management	4,160	\$181,842	\$0	\$181,842	1.0	4,160	181,842
<b>TOTAL</b>	<b>17,835</b>	<b>\$779,603</b>	<b>\$0</b>	<b>\$779,603</b>	<b>12,039.2</b>	<b>1.48</b>	<b>\$64.76</b>

Note: numbers may not appear to total due to rounding.

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

EPA estimates that 40,109 owners or operators of injection wells/facilities and 59 primacy agencies are subject to the UIC Program’s information collection requirements outlined in Section 6(a). The number of responses for each well class and activity are shown in Exhibits 6-1A through 6-1F, and summarized in Exhibit 6-1G. The estimates of the number of primacy state responses are shown in Exhibit 6-3. This number, known as the respondent universe, is based on EPA’s assumptions of the number of permittees subject to each paperwork requirement, e.g., the number of permit applicants or the percent of permittees subject to monitoring or reporting requirements and the frequency with which they must comply with those requirements. Part 2 of Appendix A provides more detail on EPA’s assumptions about the number of respondents that perform each collection activity.

EPA estimates that the total non-federal respondent burden over the three years covered by this ICR is 3.88 million hours (or 1.29 million hours per year). The total cost to respondents is \$681.92 million (or \$227.3 million per year).

## 6(e) Bottom Line Burden Hours and Costs

The bottom line burden hours and costs appear in Exhibit 6-6.

<b>Exhibit 6-6 Bottom Line Annual Burden and Cost 2019-2021</b>			
Number of Respondents	40,168	=	40,109 Operators (from EPA inventory) + 59 Primacy agencies
Total Annual Responses	557,370	=	460,604 Operator responses (from Exhibit 6-1G) + 96,765 Primacy agency responses (from Exhibit 6-3)
Number of Responses per Respondent	13.9	=	557,370 Total annual responses from above ÷ 40,168 Total respondents from above
Total Respondent Hours	1,292,260	=	1,141,294 Operator burden hours (from Exhibit 6-1G) + 150,966 Primacy agency burden hours (from Exhibit 6-3)
Hours per Response	2.32	=	1,292,260 Total annual hours from above ÷ 557,370 Total responses from above
Annual O&M + Capital Cost	\$168,345,558	=	\$168,345,558 Operator non-labor cost (from Exhibit 6-1G) + 8 Primacy agency non-labor cost (from Exhibit 6-3)
Total Respondent Cost	\$227,307,259	=	\$220,708,221 Operator cost (from Exhibit 6-1G) + \$6,599,038 Primacy agency cost (from Exhibit 6-3)
Total Hours (Respondents)	1,310,095	=	1,292,260 Total respondent hours from above + 17,835 Total EPA hours (from Exhibit 6-5)
Total Cost (Respondents plus Agency)	\$228,086,862	=	\$227,307,259 Total respondent cost from above + 9 Total EPA cost (from Exhibit 6-5)

Note: Detail may not total exactly due to independent rounding.

## 6(f) Reason for Change in Burden

The current total annual approved burden on operators and primacy states associated with the UIC Program is 1,714,046 hours. This ICR renewal request estimates a total annual respondent burden of 1,292,260 hours. Thus, there is a net decrease in burden of 421,786 hours between the approved and requested amounts. Of this, 293,674 hours is decreased operator burden and 128,112 is decreased primacy agency burden.

This section discusses the change in burden to operators of injection wells and primacy agencies between the burden requested in this ICR and the approved burden. The burden changes are the result of program and inventory changes that affect well operators and the agencies that oversee them.

## Program Changes

The following program changes affect the UIC reporting burden in this ICR:

- *Revisions to owner or operator reporting forms.* EPA revised the 7520 reporting forms submitted by injection well owners or operators. The changes include: deletions of fields that request information that can be reported in other ways or that already exists in the permit record; significant changes that reflect EPA's recognition of how information is generated or collected by operators as a customary business practice; and minor clarifications. These changes will reduce the burden necessary to complete the forms; improve the likelihood that the forms will be submitted correctly and reduce the time to process UIC requests; and simplify the reporting process. EPA estimates that these changes will reduce the burden to owners or operators by 10,596 hours annually. See Appendix C.
- *Discontinuation of permitting associated with the Class V Rule.* EPA assumes that all owners or operators of motor vehicle waste disposal wells that want to continue operating under the Class V Rule have obtained a permit. EPA estimates that this results in a reduction in the Class V owner or operator burden of approximately 320 hours. (Ongoing activities associated with operating under a Class V permit will continue, however.)
- *Changes in reporting of primacy state program information.* EPA plans to replace reporting via the National UIC database (NUICDB) with a streamlined web-based reporting approach. While there will be burden savings to states who will not incur time and expense to transition to reporting via the NUICDB and a savings of recordkeeping burden, primacy states that formerly reported via the NUICDB will report more often, which will increase the burden to those states. Additionally, in 2018, EPA Headquarters discontinued reporting of Program Activity Measures information by all states. The combined impact of these two changes results in a net increase in the collective burden to all primacy states as reporters of about 500 hours annually.
- *State primacy changes.* Since approval of the last ICR, Kentucky has been granted primacy to oversee Class II wells and North Dakota has been granted Class VI primacy. These changes add approximately 1,500 hours to the total burden to primacy agencies for overseeing injection well operators. (This burden was formerly incurred by EPA.)



## Adjustments

Adjustments that affect the UIC reporting burden in this ICR include the following:

- *Inventory changes.* Between 2013 and 2016, the national injection well inventory increased by approximately 21,260 wells. Because the inventory (and its changes from year to year) affects the number of respondents/responses for each activity, inventory changes affected the total burden on all well classes, accounting for over 95 percent of the burden change since the approved ICR. In particular, based on a slow growth in the Class II inventory over the last 3 years, EPA assumes that there will be a significant decrease in the number of Class II permit applications submitted during the ICR period. Because permitting is the most burdensome activity that is performed by these operators, EPA estimates an overall decrease in Class II operator burden relative to the previous ICR estimate. The number of Class III sites increased by 32 percent; this is the first such significant increase in the number of sites in several years, and the total Class III operator burden increased accordingly.
- *Other adjustments* in the ICR are related to adjustments in the assumptions about the number of Class II monitoring reports submitted and related to Class III completion reports.

## UIC Program Burden and Cost Reduction Efforts

EPA continues to explore options to reduce the reporting burden and cost to respondents, while maintaining the protective components of the UIC Program. This is primarily being accomplished by simplifying and clarifying the available electronic and paper-based reporting tools. EPA's efforts are briefly described below.

- EPA initiated a workgroup effort to identify potential changes to the UIC reporting forms that can reduce burden to owners or operators of injection wells and improve the quality of submittals in order to streamline reporting and reduce the time needed to process UIC requests. Based on this, EPA revised all of the owner or operator 7520 reporting forms to bring UIC Program reporting in line with industry standards and customary business practices and take advantage of technological changes in well operations (e.g., automated systems that record the required data) to reflect the ways that operators compile the required information. Specific changes to the forms eliminated information that is not needed to ensure protection of USDWs, clarified instructions, and allowed more straightforward reporting of the requested information. Overall, these changes reduce the collective burden on operators to complete the forms by approximately 3.5 percent. See Appendix C.
- EPA plans to develop a web-based reporting system to replace the NUICDB. Based on discussions with state staff, EPA understands that the costs and expertise needed to develop and maintain a primacy state database that can interface with the NUICDB limited their ability to realize the potential burden savings it offered. Therefore, EPA is working to transition to a streamlined web-based reporting approach to data collection that will allow electronic collection, storage, reporting, and analysis of summary UIC

data at a national level. While some primacy states that previously reported via the NUICDB will now be required to report more frequently, EPA estimates that transitioning to a simpler web-based system, to be developed by EPA with no capital investment by the states, will eliminate all non-labor costs to the states (an estimated annual savings of more than \$64,000 relative to the previous ICR).

## 6(g) Burden Statement

EPA estimates that, over the three years covered by this ICR, the total annual burden on injection well owners or operators and primacy agencies associated with UIC requirements will be 1,292,260 hours and the present value cost will be \$227.3 million per year. See Exhibit 6-7.

<b>Exhibit 6-7 Annual Burden and Cost Associated with All Well Classes 2019-2021</b>							
<b>Respondent Type</b>	<b>Burden (hours)</b>	<b>Labor Cost</b>	<b>Non-Labor Cost</b>	<b>Total Cost</b>	<b>Responses</b>	<b>Burden/Response</b>	<b>Cost/Response</b>
Operators	1,141,294	\$52,362,663	\$168,345,558	\$220,708,221	460,604.2	2.48	\$479.17
Primacy States	150,966	\$6,599,038	\$0	\$6,599,038	96,765.5	1.56	\$68.20
<b>Respondent total</b>	<b>1,292,260</b>	<b>\$58,961,701</b>	<b>\$168,345,558</b>	<b>\$227,307,259</b>	<b>557,369.7</b>	<b>2.32</b>	<b>\$407.82</b>
EPA	17,835	\$779,603	\$0	\$779,603	12,039.2	1.48	\$64.76
<b>TOTAL</b>	<b>1,310,095</b>	<b>\$59,741,304</b>	<b>\$168,345,558</b>	<b>\$228,086,862</b>	<b>569,408.9</b>	<b>2.30</b>	<b>\$400.57</b>

Note: numbers may not appear to total due to rounding.

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 2.32 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or 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 collection of information 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 No. EPA-HQ-OW-2014-0359, which is available for public 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 through <http://www.regulations.gov>. Use [www.regulations.gov](http://www.regulations.gov) to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. Once 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 No. EPA-HQ-OW-2014-0359 and OMB control number 2040-0042 in any correspondence.