

EPA ICR Implementation

EPA ICR Fact Sheet Series

#1 - Implementation Requirements

This fact sheet summarizes the implementation requirements for the Information Collection Requirements (ICR) Rule as promulgated in , May 1996. Monitoring begins in February 1997.

Systems Affected [§141.141(b)(2)]

The following table lists the Treatment Plant Categories affected by the ICR:

Treatment Plant Categories				
Treatment Plant Category	PWS Combined Population Serves	Treatment Plant Combined Population Served	Treatment Plant Surface Water Population Served	Treatment Plant Ground Water Population Served
A	≥100,000	≥100,000	≥1	Not Applicable
B	≥100,000	≥100,000	zero	NA
C	≥100,000	plant serves <100,000 and is largest plant	≥1	NA
D	≥100,000	plant serves <100,000 and is largest plant	zero	<100,000
E	≥100,000	plant serves <100,000 and is not largest plant in PWS	≥1	NA
F	≥100,000	plant serves <100,000 and is not largest plant in PWS	zero	<100,000
G	50,000-99,999 and ≥50,000 served by ground water	NA	NA	largest ground water plant

*Plant Categories for
DBP and Micro
Monitoring*

PWSs serving 100,000 persons or more with treatment plants in Categories A, B, C, D, E or F must conduct DBP and related monitoring at each plant. PWSs serving 100,000 persons or more must conduct microbiological monitoring at each treatment plant in Categories A, C or E. In addition, plants in Categories A, B, C, D and G (PWS serves 50,000 to 99,999 and ≥ 50,000 served by ground water) must conduct treatment study applicability monitoring.

*Treatment Studies
Applicability Monitoring*

Monitoring Required

Beginning 3 months after promulgation, plants in Categories A, B, C, D, and G must conduct treatment study applicability monitoring under §141.144. If, based on the results of the applicability monitoring, a plant cannot be excused from conducting treatment studies they must conduct either bench- or pilot-scale treatment studies to meet the treatment studies requirement. Details of this monitoring, the treatment studies themselves, and other options to meet this requirement will be found in EPA ICR Fact Sheet Series - # 3.

*DBP and Micro
ICR Sampling*

Following Initial Sampling Plan approval, two types of monitoring will be required under the ICR:

- DBP and Related Monitoring conducted under §141.142, and
- Microbiological Monitoring conducted under §141.143

See Table 2 in the rule [§141.141(b)(2)].

*ICR Monitoring lasts
eighteen (18) months*

Sampling Points

Monitoring under the ICR will be conducted monthly for a period of 18 months for a number of different analyte groups, collected at many locations within the treatment plant and distribution system. Some samples, such as the DBPs, are only collected quarterly. The frequency and location of ICR DBP sampling are shown in Tables 1a and 1b [§141.142(a)]. Treatment plants using other than free chlorine (ozone, chlorine dioxide, hypochlorite and chloramines) must also conduct additional monitoring shown in Tables 2 through 5. Consult the ICR Sampling Manual [EPA/814-B-96-001] for additional details on sampling locations and procedures. Before collecting any samples, the PWS must submit a detailed sampling plan to EPA for approval. This sampling plan is described below under the heading, "Initial Sampling Plan" while details for developing the plan are presented in the Users' Guide for the ICR Water Utility Database System [EPA 814-B-96-004].

*Tables 1 thru 5 define
monthly & quarterly
monitoring*

Formal Notification by EPA

Notice of Applicability

Following promulgation of the ICR and publication in the Federal Register, EPA will send "Notice of Applicability" letters to a list of PWSs for the purpose of formally announcing the ICR and to request that the affected utilities supply certain information to EPA (within 5 weeks) that will aid in determining which of their plants must comply with the monitoring provisions of the ICR. This list was developed by EPA, in conjunction with the states, and consists of those PWSs that EPA and the states believe meet ICR applicability criteria. PWSs that do not receive a Notice of Applicability, but believe that they meet applicability criteria must contact EPA to request a Notice of Applicability [§141.141(f)(1)]. After the PWS responds to the Notice of Applicability, it will then receive an "applicability letter" from EPA stating how each plant will be affected by the ICR. The utility will then have eight (8) weeks to submit an "Initial Sampling Plan" to EPA.

Applicability Letter

*Video and training in
how to develop an
Initial Sampling Plan*

Initial Sampling Plan

The initial sampling plan must be developed by the utility for each treatment plant affected by the ICR and will include the plant design parameters for each unit process in each process train for each treatment plant, the location of each sampling point, and the analytical parameters to be monitored at each sampling point. The Users' Guide for the ICR Water Utility Database System contains data entry worksheets that will aid in the collection and entry of the plant design parameters. The data entry software will be used to develop the plan(s). A video will be provided by EPA to introduce utility personnel to the software. Training courses will also be offered by AWWA in September and October of 1996 (see ICR Training) to provide "hands-on" instruction in the use of the software. Additional help on the use of the software will also be available from the AWWA A-Team and through the ICR Data Management System Hotline, 703-908-2155. The sampling plan can only be submitted to EPA on diskette.

The "A-Team"

NOTE: The AWWA Assistance Team (A-Team) will provide schematics showing the unit processes used at each system's treatment plants. Each schematic will show where monthly and/or quarterly samples are to be taken. The A-Team will also provide help to utilities in the development of the Initial Sampling Plan. The A-Team can be reached by phone at:

1-800-200-0984

or by E-Mail at: **103327.2057@compuserve.com**

Start of Sampling

EPA will review the Initial Sampling Plan submitted by the utility and, if approved, will send an "approval letter" to the PWS. Sampling must begin in the first month following receipt of this sampling plan approval letter.

Monthly Sampling

*Data Entry Work-
sheets for collect-
ing monthly data*

The data entry software should be used to develop sampling plans for each month that ICR samples are collected throughout the 18-month monitoring period. This can be done with the data entry software by copying information from one sampling period to another and then updating the operational information for the current month. In addition, the Users' Guide contains a set of Data Entry Worksheets to help in the collection of information required for monthly sampling. These monthly sampling plans do not need to be submitted to EPA. Reports generated by the software will, however, be useful in the collection of operating data and specific sample collection information. Refer to the database Users' Guide for specific information on how to prepare the monthly sampling plans.

Monthly Reports

The ICR Water Utility Database System enables the user to print out a series of three reports that will aid in the collection of the monthly samples. One of these reports, Report C.1, Monthly Sample Data Collection Form, is used by the sample collector to ensure that the required samples and sampling data are collected. The other data collection forms are used to collect unit process and chemical data at the time of sampling.

ICR Sample Numbers

All samples will have a discrete sampling number assigned by the software which contains the following information:

- ICR Treatment Plant ID Number - 1st 3 digits
- Sampling Month - next 2 digits
- Sampling Year - next 2 digits
- Sample Location Number - next 2 digits
- Analyte Group - remaining characters

An example of a ICR sampling number is: **315039703THM**

Micro Sampling Procedures

Additional information on sample collection is available in the ICR Sampling Manual, which is referenced in the rule along with other manuals. Specific sampling procedures for the chemical parameters are not covered in detail in the sampling manual since these procedures have been used by the water systems for some time and should be familiar. The microbial sampling procedures, however, are new to many of the systems and are described in detail in a video and companion guide entitled, Information Collection Requirements Rule - Protozoa and Enteric Virus Sample Collection Procedures [EPA/814-B-95-001].

Low-level bromate, cyanogen chloride, and aldehyde analyses

EPA Special Analyses

For treatment plants that use chloramines, cyanogen chloride samples must be collected quarterly and sent to EPA in Cincinnati for analysis. For treatment plants that use ozone or chlorine dioxide, PWSs must collect duplicate bromate samples on a monthly basis. The PWS must analyze one sample and submit the other to EPA for low-level bromate analysis at their Cincinnati lab. These bromate samples will be collected by utilities in sample bottles provided by the EPA lab. Aldehyde samples collected quarterly by treatment plants that use ozone or chlorine dioxide will also be analyzed by the Cincinnati EPA lab. It is important to schedule the analysis of these samples in advance of the date of sample collection. These samples should be sent to:

ICR DBP Sample Coordinator
US Environmental Protection Agency
26 West Martin Luther King Jr. Drive
Cincinnati, OH 45268

See the ICR Sampling Manual [EPA/814-B-96-001] for details on the submission of these samples to EPA. EPA will report analytical results

for cyanogen chloride, low-level bromate, and aldehydes to the PWS once analysis is complete.

Monthly Sampling Results

Monthly sampling results will be entered by the utility into the ICR Water Utility Database System as they are received from the laboratories and reviewed by utility personnel. Data are not to be transferred to EPA until all of the monthly sampling results for a particular sampling period have been received, reviewed, and entered into the application. This could take several months, especially in the case of the virus results. When all of the sampling results have been received and entered, the utility shall submit a monthly report (diskette) to EPA that indicates the analytical results of all samples collected for the sampling period (including quarterly samples collected in that month), and all of the relevant plant operational data. These data shall be submitted to EPA on a diskette no later than the fourth month following the month in which the samples were collected.

Data transfer to EPA

Final Design

The last set of treatment plant, process train, and unit process information to be gathered under the ICR is the Final Design. The Final Design data may be copied from the Initial Sampling Plan using the database software and then edited to reflect the status of the treatment plant at the conclusion of the ICR data collection effort. Again, the Users' Guide should be consulted for details on the data entry procedures. The Final Design must be submitted to EPA on a diskette along with a summary report.

Copy and edit Final Design data from the Initial Sampling Plan

Use of Approved Laboratories

Laboratories which intend to conduct analyses under the ICR must receive specific ICR approval from EPA. See the EPA ICR Fact Sheet Series - # 2 on lab approval and the appropriate manuals for details.

Lab Approval Fact Sheet

Treatment Studies

Summary information on meeting the treatment study requirements is contained in the EPA ICR Fact Sheet Series - # 3 and detailed information is provided in the Treatment Studies Manual [EPA/814-B-96-003].

Treatment Studies Fact Sheet

Technical Manuals

Four (4) technical manuals have been printed that cover additional ICR requirements. The manuals are referenced in the rule and, as such, further specify the details of the rule's requirements and provide additional guidance on how to comply with the ICR requirements. The manuals are:

- ICR Sampling Manual, *EPA/814-B-96-001*
- DBP/ICR Analytical Methods Manual, *EPA/814-B-96-002*
- ICR Manual for Bench- and Pilot-Scale Treatment Studies, *EPA/814-B-96-003*
- ICR Microbial Laboratory Manual, *EPA/600-R-95-178*

EPA Manuals

In addition, reprints of EPA chemical analytical methods to be used in the ICR are included in "Reprints of EPA Methods for Chemical Analyses under the Information Collection Rule," EPA 814-B-96-006.

These manuals will be provided at no cost to the systems that must comply with the provisions of the ICR. Additional copies will be available for a fee from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. Cost and ordering information can be obtained from NTIS by calling them at their toll free number, 1-800-553-6847.

Availability of Users' Guide

The ICR Water Utility Database System Users' Guide [EPA/814-B-96-004] will also be provided free along with the software to the affected utilities. Additional copies of the Users' Guide will be available from NTIS.

ICR Training

AWWA ICR Training

The AWWA will be conducting approximately twenty-four, 2-day ICR training courses in 9 or 10 locations around the country in September and October of 1996. Several topics will be covered including "Understanding the ICR," sampling, and data handling. The primary emphasis of the training, however, is the use of the data entry software. Hands-on training will be provided in the development of an Initial Sampling Plan, entry of monitoring results, and data reporting. Contact Rick Merrill at AWWA at 303-347-6185 for course offerings and details.

Additional Training Materials

Some "stand-alone" training materials are also being developed by EPA for the ICR. A 40-minute training video on the sample collection procedures for microbiological sampling has been produced [EPA/814-V-95-001] along with a companion guide entitled, "Information Collection Requirements Rule - Protozoa and Enteric Virus Sample Collection Procedures," [EPA/814-B-95-001]. A training manual entitled, "Understanding the ICR," is also being developed for those interested in learning more about the ICR. This manual should be available in late July 1996. Contact the EPA Safe Drinking Water Hotline at 1-800-426-4791 for ordering information.

EPA Assistance

Since the ICR is being directly implemented by EPA (rather than States), inquiries should be directed to EPA. For implementation inquiries contact the nearest EPA Regional Office (contact people are listed in the rule) or contact the Safe Drinking Water Hotline at the number above. They will be able to answer your question(s) or direct you to the appropriate person.