

INFORMATION COLLECTION RULE ***SUMMARY FOR THE PUBLIC***

The final Information Collection Rule (ICR) was published in the *Federal Register* in May 1996. This FR notice finalizes requirements for monitoring microbial contaminants and disinfection byproducts by large public water systems (PWSs). It also requires large PWSs to provide operating data and a description of their treatment plant design. Finally, it requires large PWSs to conduct either bench- or pilot-scale testing of advanced treatment techniques.

Purpose of the Rule

The highest priority health risk concern in the regulation of drinking water is the potential risk-risk tradeoff between the control of microbiological contamination (bacteria, viruses and protozoa) on the one hand and disinfection byproducts on the other hand. This risk-risk tradeoff arises because typically the least expensive way for a public water system to increase microbial control is to increase disinfection (which generally increases byproduct formation) and the easiest way to reduce byproducts is to decrease disinfection (which generally increases microbial risk). Microbiological contamination often causes flu-like symptoms, but can also cause serious diseases such as hepatitis, giardiasis, cryptosporidiosis, and Legionnaire's Disease. Disinfection byproducts may pose the risk of cancer and developmental effects.

In 1992, EPA entered into a Regulatory Negotiation to address this tradeoff. Regulatory Negotiation is a process whereby the Agency acts on an equal basis with outside parties to reach consensus on the content of a proposed rule. If the group reaches consensus, the Agency commits to propose the rule with the agreed upon content. In 1993 negotiators reached consensus on a ***three part regulatory approach***:

1. ***Interim rules*** to reduce levels of disinfection byproducts without causing major industry shifts to alternative disinfectants (such as ozone and chlorine dioxide) until the risks from those alternatives are more clearly understood, and to modify the current regulation on microbial contamination to ensure a uniform level of protection, regardless of the quality of the water used as a drinking water source (the current rule requires a uniform level of contaminant reduction for all public water systems, regardless of the quality of the water used as a drinking water source).
2. ***Intensive data collection and research effort*** to learn more about the occurrence of microbial contamination and disinfection byproducts, the health risks posed, appropriate analytical methods, and effective forms of treatment.
3. ***Longer term rules (as needed)*** based on analysis of the data and research.

The Information Collection Rule was negotiated to meet, in part, the second regulatory approach. It requires large public water systems to collect information on the presence and levels of microbial contamination and disinfection byproducts and also on the effectiveness of various treatment technologies to reduce those levels. Results from the rule will be used to evaluate how to modify the current regulation on microbial contamination and also to determine the need for, and content of, longer term rules. About 500 utilities are expected to be involved in the data collection effort, for a total cost of \$130 million expended over a three year period beginning in 1997.

Types of Data to be Collected and Why They are Needed

- **Microbial Monitoring**

Utilities will monitor for representative bacteria, viruses, and protozoa over an 18 month period. These data are needed to develop national occurrence estimates of the presence and levels of microbial contamination in water entering water treatment plants.

- **Disinfection Byproduct Monitoring**

Utilities will monitor for a number of parameters related to disinfection byproducts. One category is organic materials which occur in water entering water treatment plants. It is these materials which react with disinfectants to form byproducts. A second category is the amount of disinfectant which remains after treatment and is available to react with the organic materials to form byproducts. And, finally, the third category is the byproducts themselves. These byproducts vary depending on the disinfectant being used. These data will provide information on the relationship between the amount and type of organic material in the water, the amount of disinfectant used, the treatment process used, and the degree of byproduct formation.

- **Treatment Technology Studies**

Utilities will perform bench- or pilot-scale studies on one of two types of treatment: granular activated carbon or membrane processes. These data will be used to judge the effectiveness of these technologies in reducing the levels of byproduct formation and the cost of doing so.

Schedule

Microbial and disinfection byproduct monitoring are to be conducted monthly for 18 months, beginning in early 1997. Treatment technology studies will be conducted over 12 months, beginning in 1998.

Data Availability

Utilities are responsible for submitting data to EPA on a monthly basis, beginning four months after the initiation of sampling. EPA expects to take about two months to perform quality control checks on the data before entering the data into the data system and having the data available on-line to the public. EPA intends to make the data available via the Internet. Data can be downloaded from the EPA data base so that members of the public can analyze the data as they wish.

After eight months of data are entered into the data system, EPA will analyze the data and publish a Federal Register notice discussing its analysis. The Federal Register notice will also indicate whether EPA believes the current regulation for microbial contamination needs to be modified and, if so, how. EPA will take public comment on the contents of that notice before deciding whether to promulgate revisions to the current Surface Water Treatment Rule. EPA will also await the results of the full 18 months of microbial and disinfection byproduct monitoring before promulgating any revisions to the current rule to be sure that the last ten months of data are similar to the results of the first eight months.

Results of the treatment studies will be made available to the public before EPA initiates public dialogue on the need for, and content of, long term rules.

For More Information Contact the Safe Drinking Water Hotline at 1-800-426-4791