

M/DBP Stakeholder Meeting: Information Collection Rule Data Analysis

EXECUTIVE SUMMARY

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In support of the Information Collection Rule (ICR) (61 FR 24354) EPA held a stakeholder meeting on February 19, 1998, in Washington DC. The ICR data will be evaluated in the context of the information needed for evaluating the potential impacts from the Stage 2 Disinfectants/ Disinfection Byproduct Rule (D/DBPR) and the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). The objectives of the meeting were to update stakeholders on the ICR data analysis database strategy technical work groups (TWGs) activity, progress, and challenges and to receive stakeholder feedback. The TWGs had been charged with identifying questions pertinent to ICR data analysis that cover the range of analytical issues anticipated needing to be addressed and identifying data elements and associated formats (e.g. spreadsheet configuration needed) to answer these questions.

Background

The ICR was promulgated on May 14, 1996 and was intended to provide EPA with information on the occurrence in drinking water of disinfection by-products (DBPs) and pathogens as well as information on current treatment practices. The primary goal of the ICR is to fill data gaps identified during the regulatory negotiation process for the Stage 1 D/DBPR and Interim ESWTR. The ICR data will specifically support the development of the Stage 2 D/DBPR and the LT2ESWTR.

The ICR requires all systems serving at least 100,000 people and ground water systems serving at least 50,000 people to collect information on the occurrence of DBPs and microbial pathogens in drinking water and treatment information depending upon size and type of source water used. Additionally, depending upon water quality conditions, systems are required to conduct bench- and pilot-scale treatment studies to determine the effectiveness of granular activated carbon (GAC) and membranes for reducing DBP precursors (naturally occurring compounds that react with disinfectants to form DBPs).

Utilities began collecting ICR data in July 1997. The first six months of QA/QC'ed data will be available in December 1998. The full 18 months of QA/QC'ed data will be available in December 1999. The ICR treatment study data will likely be available August 1999. The final Stage 2 D/DBPR and the LT2ESWTR will be promulgated in May 2002.

Three TWGs were created to develop a database strategy for analyzing the ICR data: microbial, DBPs, and modeling, with a steering committee consisting of a subset of these TWGs. Each group consists of interested stakeholders, EPA staff, and computer specialists. The microbial and DBP TWGs worked in parallel with intermittent plenary sessions while the modeling TWG reported to both groups.

Summary

EPA provided an update on the status of several M/DBP related issues. These included a Lab Spiking study which will be used to determine if an adjustment factor is appropriate for the ICR protozoan method. ICR Supplemental Surveys will cover 40 plants each of large, medium, and small systems and will monitor source water variables to determine how source waters differ between different system sizes. These surveys will compare Method 1622 to the ICR IFA method for protozoa. A future stakeholder meeting on spiking and supplemental surveys was discussed. EPA also proposed providing utility verification reports with cautionary language in response to anticipated FOIA requests. EPA discussed the planned internet release of validated aggregated data for the general public which will also include cautionary language. A future stakeholder meeting on public access was discussed. EPA also provided an update on the Cryptosporidium CT Workshop that took place in January. The objective of this workshop was to discuss Crypto inactivation and determine a common frame of reference for the variety of existing studies.

In the current schedule for M/DBP activities, negotiations for Stage 2 D/DBP and LT2ESWTR are scheduled to begin in April 1999. EPA proposed scheduling a FACA stakeholder meeting in December 1998 to charge a TWG with technical questions, including ICR data analysis that need to be answered before April 1999.

The DBP and microbial TWGs were charged with developing a database strategy for analyzing the ICR data. The TWGs first developed lists of Stage 2 DBP and LT2ESWTR questions that the ICR data will be used to answer. These included questions for both vertical (across all plants or a subset of plants) and horizontal (individual through plant) analyses. Each group then determined which data elements from the ICR database are needed to answer these questions.

The microbial TWG approached the problem by first consolidating questions for ICR analysis, then identifying data elements and relationships for these questions. Finally, they evaluated the completeness and suitability of these for detailed questions. The microbial TWG presented horizontal organizational requirements needed to analyze treatment issues. The TWG proposed a Global Template of Facility Layout as a means of organizing multiple plant horizontal analyses.

The DBP TWG first created an extensive list of broad and detailed questions for ICR analysis. The TWG then created sets of related data elements needed to answer these questions. The TWG created a matrix of the questions and data element sets to assign sets to specific questions. It was determined that horizontal analyses would require a general way of organizing multiple plant analyses such as the microbial group presented. The DBP group also identified top priority data analysis issues.

The goal of the modeling TWG is to have a working version of the revised Water Treatment Plant (WTP) Simulation program by September 1998. This WTP model will be used to evaluate simultaneous compliance with Stage 2 DBPR and LT2ESWTR. The current model, which was used during the regulatory negotiations for the Stage 1 DBPR and the Interim ESWTR, has a number of limitations which the modeling group will improve. The modeling group presented a standard form which will be used to propose model updates. Comments on these proposals will be taken by the TWG.

Stakeholders felt that they could not respond immediately to the progress of the TWGs because of the amount of information presented. Comments for the JRP process must be received by March 15, 1998. Stakeholders were also concerned about developing a plan to integrate the ICR data with data from the ICR treatment studies, ICR supplemental surveys, the mini ICR, research, etc.

A presentation on the ICR treatment studies provided an update on the status of these studies and a request for volunteers for a TWG to assist with the development of a data analysis plan. Those interested should contact Steve Allgeier at: allgeier.steve@epamail.epa.gov.

EPA presented data analytic approaches for dealing with non detects (focusing on protozoan monitoring data). EPA stressed the importance of stakeholder involvement in determining how non-detects will be handled.

Next Steps

This stakeholder meeting and preceding TWG meetings were in preparation for the first joint requirements planning (JRP) meeting on ICR data retrieval and analysis, February 20, 1998. Another JRP will be held April 14-16, leading to a JAD meeting in May. Development of the database extraction software will begin in June. The projected date for a complete extraction program is in September 1998.