

M/DBP Technical Workgroup Meeting Information Collection Rule Data Analysis

January 29-30, 1998

Executive Summary

Washington, D.C.

In support of the Information Collection Rule (ICR) (61 FR 24354) EPA held a technical workgroup meeting on January 29-30, 1998, in Washington DC, to develop a strategy for ICR data analysis. 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 identify questions pertinent to ICR data analysis that cover the range of analytical issues anticipated needing to be addressed and to identify 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.

Summary

Three technical work groups (TWGs) were created to develop a 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.

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

evaluation of the range of questions that the data analysis strategy must be capable of answering, the TWGs ensured that alternative issues could be addressed.

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 TWGs also developed initial ideas of possible database structures that could be used for ICR data analysis. Several models for auxiliary databases including one which could act as input parameters for the revised WTP Simulation Program were presented.

Next Steps

The TWGs will have another meeting on February 18, 1998. At this meeting the microbial and DBP TWGs will finalize and prioritize their lists of questions for ICR data analysis. On February 19, 1998, a stakeholders meeting will be held to present the progress of the TWGs to interested parties. The objective of this meeting is to update the stakeholders and receive comment on the direction the TWG has taken and to finalize the draft data analysis request. Both of these meetings are in preparation for the first joint requirements planning (JRP) meeting on ICR data retrieval and analysis. A series of JRPs in March and April will be held, 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.

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