October 19, 1998

The Honorable Carol M. Browner
Administrator
United States Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Ms. Browner:

Enclosed for your consideration is the Report of the Small Business Advocacy Review (SBAR) Panel convened for EPA's rulemaking on the Long Term 1 Enhanced Surface Water Treatment Rule (LT1). The objective of the LT1 is to establish regulatory controls to address *Cryptosporidium* and to strengthen filtration performance requirements to ensure continued microbial protection as systems adjust their treatment process to comply with the Stage 1 Disinfection Byproduct (Stage 1 DBP) Rule.

To achieve these goals, EPA is considering the following major components for LT1: strengthened combined filter effluent turbidity requirements; individual filter monitoring and reporting requirements; *Cryptosporidium* removal requirements; and disinfection benchmarking requirements which would provide a tool for utilities and states to evaluate how a change in disinfection practices to meet the Stage 1 DBP requirements will affect microbial protection.

On August 25, 1998, EPA's Small Business Advocacy Chair (Thomas E. Kelly) convened this Panel under section 609(b) of the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA). In addition to its chairperson, the Panel consists of the Director of the Standards and Risk Management Division of the Office of Ground Water and Drinking Water within EPA's Office of Water, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, and the Chief Counsel for Advocacy of the Small Business Administration.

It is important to keep in mind when reviewing this report that the Panel's findings and discussion are based on the information available at the time this report was drafted. EPA is continuing to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during the remainder of the rule development process and from public comments on the proposed rule. Any options the Panel identifies for reducing the rule's regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound and consistent with the Safe Drinking Water Act.

Scope of the Rule

The proposed rule would apply to small surface water systems and ground water systems under the direct influence of surface water (GWUDI). A public water system provides water for human consumption through pipes and other constructed conveyances. The term "public water system" applies not only to water utilities, but also to a wide range of privately owned businesses and entities that provide drinking water (e.g., campgrounds, factories, restaurants, and schools). For purposes of this rulemaking, OGWDW considers a small water system to be one that serves a population of 10,000 or less. There are 5,165 small public water systems that use surface water or GWUDI.

Stakeholder Meetings and Small Entity Outreach

The Office of Ground Water and Drinking Water (OGWDW) plans to develop a proposed LT1 rule in the Fall of 1999 and a final rule by November of 2000. To facilitate regulation development, EPA is actively involving all stakeholders in the development of the proposed rule. As part of this effort, the Agency held a stakeholder meeting in July, 1998, in Denver, Colorado. The purpose of this meeting was to present possible regulatory approaches for discussion. EPA is planning an additional stakeholder meeting to solicit additional input regarding possible components of the rule and potential impacts of the rule on regulated systems. The meeting will be held in Washington, D.C.

EPA has also organized a Small Systems Data Needs Working Group. The group comprises representatives from the American Water Works Association, Association of State Drinking Water Administrators, National League of Cities, National Resources Defense Council, and National Rural Water Association. Established in the spring of 1997, the group held six meetings, from March through December, to discuss the availability of water quality and financial data for small systems that are needed to support the LT1 rule, and other drinking water regulations.

OGWDW believes that input from small entities is particularly important in the rulemaking process because all of the systems to which the rule applies are small. EPA consulted with trade organizations, EPA regional offices, state drinking water programs, stakeholder meeting attendees, and the Small Business Administration's Office of Advocacy to develop a list of potential Small Entity Representatives (SERs). EPA invited 24 SERs to participate in the SBREFA process, and 16 of those invited agreed to participate. The SERs were provided with background information on the Safe Drinking Water Act and the LT1 in preparation for a tele-conference on April 28, 1998. The SERs also received *Information for Small Entity Representatives Regarding the Long Term 1 Enhanced Surface Water Treatment Rule* that described the possible components of this rule. This information package included data on options as well as preliminary unit costs for treatment enhancements under consideration. Eight SERs provided comments on these materials. The SBAR Panel convened on August 25, 1998. The SERs were provided with additional information on potential costs related to LT1 regulatory options during a tele-conference on September 22, 1998. Nine SERs participated in the tele-conference and three SERs provided written comment on these materials. A summary of comments from the tele-conference and written comments received by both OGWDW and the Panel are included in the report. The complete written comments of all SERs are included in Attachment C.

OGWDW will consider the comments received as well as the Panel's recommendations when developing the proposed rule.

Panel Findings and Discussion

SBA and OMB note a general concern regarding the degree of flexibility available under the statute to address small entity concerns in this rulemaking. The legislative history to the SDWA indicates that Congress intended that consideration of technical and economic feasibility in the determination of best technology available is to be based on the capabilities of large systems. In November, 1998, EPA will promulgate the Interim Enhanced Surface Water Treatment rule (IESWTR) which provides tighter turbidity limits and individual filter monitoring and disinfection profiling requirements for large systems. Acquiring the technical and financial capability to implement such requirements may be considerably more challenging for small systems than for large ones. OMB and SBA are concerned with how much flexibility EPA has under the statute to tailor the large system requirements already promulgated in the IESWTR to the needs and limitations of small systems. The Panel believes it is important and worthwhile to fully consider these needs and limitations but recognizes that the development of alternatives to address them may be limited by the statutory requirements of SDWA.

Under the Regulatory Flexibility Act (RFA), the Panel is to consider four regulatory flexibility issues related to the potential impact of the rule on small entities: (1) the type and number of small entities to which the rule will apply; (2) record keeping, reporting and other compliance requirements applicable to small entities; (3) the rule's interaction with other Federal rules; and (4) regulatory alternatives that would minimize the impact on small entities consistent with the stated objectives of the statute authorizing the rule. The Panel's most significant findings and discussion with respect to each of these issues are summarized below.

Types and Number of Potentially Affected Small Entities

No commenters questioned the information provided by EPA on the number and types of small entities which may be impacted by the LT1 rule. This information is based upon the national Safe Drinking Water Information System (SDWIS) database, with information about all public water systems in the country. The Panel believes this is a reasonable data source to draw from in characterizing the number and types of systems impacted by this rule.

Record Keeping, Reporting and Other Compliance Requirements

The Panel notes the concern of a number of SERs that some small systems are operated by a single, part time operator with many duties beyond maintaining the drinking water supply for the community. Several of the components of this rule may require significant additional operator time to implement. These include disinfection profiling, individual filter monitoring, and ensuring that short-term

turbidity spikes are corrected quickly. EPA should keep the staffing limitations of small systems in mind when developing reporting and record keeping requirements, and look for ways to tailor these requirements accordingly.

The Panel notes that during the September Conference Call, EPA cost estimates for each of the possible process enhancements were discussed and were generally considered accurate by the SERs, with certain exceptions. Cost estimates for chemicals were considered low because smaller systems do not purchase chemicals in as great a quantity as larger systems do. It was also noted that there are significant fixed capital costs for several of the process enhancements which may not be much lower for very small systems than for "large" small systems. The very small systems have a much smaller customer base across which to distribute these costs. The remoteness of some smaller system also adds to the cost of improvements (in some remote areas, the cost of concrete reaches $90 per cubic yard). The Panel recommends that EPA utilize comments provided by the SERs to refine its cost estimates.

One potential cost element of particular concern to several SERs was the cost of acquiring a Supervisory Control and Data Acquisition (SCADA) system to automatically record turbidity measurements. The Panel recommends that EPA provide sufficient flexibility in the record keeping requirements to allow systems to utilize simple and affordable monitoring and compliance measures.

An additional concern for the SERs was the cost associated with operator training. The Panel recommends that the EPA consider this cost when analyzing the impact of regulatory options on small systems.

One option recommended by several SERs to reduce monitoring cost burden was to allow the use of one on-line turbidimeter to measure several filters. This would entail less frequent monitoring of each filter, but might still be adequate to ensure that individual filter performance is maintained. The Panel recommends that EPA consider this option.

Interaction with Other Federal Rules

One SER commented that any added responsibility or workload due to this and other rules will have to be absorbed by him and his staff which may affect his ability to perform other important maintenance activities in a timely manner. The Panel also notes that the LT1, Stage 1 DBP, and Filter Backwash Recycle rules will affect small systems virtually simultaneously. EPA should analyze the net impact of all of these rules, and consider regulatory options that would minimize the impact on small systems.

Regulatory Alternatives

Turbidity Provisions

The Panel notes a SER comment that it was fair to assume that turbidity up to 1 nephelometric turbidity unit (NTU) maximum and 0.3 NTU in 95 % of all monthly samples is a good indicator of two log removal of *Cryptosporidium*, but stressed the need to permit operator response time for exceedences in automated systems. The Panel recommends that EPA consider this limitation when developing reporting and record keeping requirements.

The Panel further notes that another SER agreed that lowered turbidity level is a good indicator of overall plant performance but thought the 0.3 NTU limit for the 95th percentile reading was too tight, in light of a study which appears to show variability and inaccuracies in low level turbidity measurements. The Panel recommends that EPA not set regulatory limits below the level at which concentrations can be reliably measured and notes that EPA is currently evaluating information from performance evaluation (PE) studies on low level turbidity measurements.

The Panel notes that several SERs supported individual filter monitoring, provided there is flexibility for short duration turbidity spikes, and recommends that EPA consider the likelihood and significance of short duration spikes (i.e., during the first 15-30 minutes of filter operation) when evaluating the frequency of individual filter monitoring and reporting requirements and the number and types of exceedences that will trigger requirements for comprehensive performance evaluations (CPEs). The Panel also notes concerns expressed by several SERs that individual filter monitoring may neither be practical nor feasible in all situations. Examples include traveling bridge filters in package systems and horizontal pressure filters with multiple cells. The Panel recommends that EPA carefully consider such situations and provide appropriate flexibility.

Disinfection Profiling Applicability Provisions

In the materials presented to the SERs, EPA suggested that profiling might be required if average total trihalomethane concentration exceeds 0.064 mg/L or average haloacetic acids concentration exceeds 0.048 mg/L for the most recent 4 quarters of data. The Panel recommends that EPA consider alternative applicability provisions as a potential means of reducing burden on small systems. An example of such an alternative would be a set of criteria based on a single worst case scenario. Another would be to base the criteria on 4 quarters of data, but only require sampling at the point of maximum residence time in the distribution system.

Disinfection Profiling Provisions

The Panel notes the SER comments that monitoring and computing *Giardia lamblia* inactivation on a daily basis for a year would place a heavy burden on operators that may only staff the plant for a few hours per day. The Panel therefore recommends that EPA consider alternative profiling strategies. One option would be to allow reduced profiling (e.g., weekly instead of daily) for small

systems. Another would be worst case scenario profiling. Under this approach, each state would determine the critical time of year (when the lowest microbial inactivation levels are expected) and require daily inactivation monitoring and calculations only during this critical time period. A third alternative would be not to require profiling at all for some types of small systems, but instead allow the state to do theoretical benchmark calculations based on engineering and water quality data at each system.

Flexible Implementation

The Panel also notes the concern of several SERs that flexibility be provided in the compliance schedule for the rule for small entities. SERs noted the technical and financial limitations that some small systems will have to address, the significant learning curve for operators with limited experience, and the need to continue providing uninterrupted service as reasons why additional compliance time may be needed for small systems. The Panel encourages EPA to keep these limitations in mind in developing the proposed rule and provide as much compliance flexibility to small systems as is allowable under the SDWA. EPA notes that under the statute, systems have 3 years to comply, with the possibility of a two year extension if capital improvement is required.

Sincerely yours,

/S/

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U.S. Environmental Protection Agency

/S/

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