UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NATIONAL DRINKING WATER ADVISORY COUNCIL

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JAN 16 2008

OFFICE OF WATER

Mr. Stephen L. Johnson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington D. C. 20460

Dear Administrator Johnson:

On November 15-16, 2007, the National Drinking Water Advisory Council (hereafter NDWAC or Council) held its annual fall meeting in Washington, D.C. The focus of the meeting was on issues related to effective communication of drinking water issues. The Council also received briefings on EPA's efforts related to geologic sequestration of carbon dioxide and other regulatory matters. Finally, the full Council received feedback from a Council subgroup that has been working with EPA on drinking water performance measures.

The Council agreed to recommendations in three areas – communication, geologic sequestration, and performance measures. I am transmitting these recommendations to you on behalf of the Council.

Communication

The November meeting focused on issues related to how various parties can communicate drinking water issues effectively on a daily basis and during crises. EPA provided an overview of various efforts the Agency has underway to support states and utilities - from conducting general public outreach to implementing public right to know regulations to developing water security crisis communication plans. During the agenda, we divided Council members into panels consisting of government officials, drinking water utilities, and other

stakeholders so that fellow members could hear the perspectives of each group on the issue at hand. The conversation was lively and the Council discussed a variety of issues associated with communication issues. After further deliberation, the Council identified a number of recommendations for the Agency that it believes will enhance communication efforts at the federal, state, and local levels. The Council recommended the following:

- NDWAC recommends that EPA reevaluate the Consumer Confidence Rule requirements to see if they are meeting the goals of the 1996 law. The Council noted that such a review could be conducted as a part of the next 6 year review of national primary drinking water regulations or through other appropriate means.
- NDWAC recommends that EPA develop and/or identify models that states and public water systems can use to effectively communicate on priority issues. The Council suggested that EPA could compile good examples and share them broadly and/or develop templates/models that can be modified for use at the local level.
- NDWAC recommends that EPA identify models of effective collaboration on communication issues between utilities, state drinking water programs, and local/state heath departments. The Council noted that EPA could follow up with organizations like ASTHO, NACCHO, and AWWA on their efforts to strengthen the connection between public health and safe drinking water.
- NDWAC recommends that EPA work to identify organizations or elected officials with whom it could collaborate to communicate with policy makers on critical drinking water issues (e.g. sustainable infrastructure, investment, rates, water quality).
- NDWAC recommends that EPA ensure that the messages and other products addressing key drinking water issues are disseminated widely. Several Council members agreed to review EPA's new consumer web site, but also asked if EPA could consider how other sections of its site could be modified to facilitate flow of information to specific audiences.

Geologic Sequestration

The Council received a briefing from EPA on the Agency's efforts related to the geologic sequestration (GS) of carbon dioxide (CO_2). The Council had also been briefed on this issue during the May 2007 meeting and expressed interest in engaging on efforts to help guide a long-term management strategy for the practice. During the November meeting, Agency officials explained that the expedited process to develop proposed regulations for geologic sequestration by the summer of 2008 precluded engagement of a working group process to develop the proposal. The Council expressed some concern about the aggressive schedule being proposed by the Agency and recommended the following:

> NDWAC recognizes the potential environmental benefits of geo-sequestration of CO_2. However, given the number of unresolved technical and policy issues associated with the geo-sequestration of CO_2, including potential adverse public

health and environmental effects and unintended consequences to ground water resources, NDWAC recommends that USEPA assures that timely and sufficient resources are allocated to the research and debate associated with geo-sequestration. Additionally, USEPA should assure that existing laws are adequate for the short and long term protection of the nation's water resources from geo-sequestration activities.

Performance Measures

Performance measures and indicators for the drinking water program have been an area of interest to the NDWAC since late 2004. At its Spring 2005 meeting, the Council established a subgroup and charged them with revising the current measures for the national drinking water program and developing new measures that would be more directly connected to public heath protection through safe drinking water. The subgroup previously provided recommendations on performance measures to the Agency in November 2005 and September 2006. On a separate track, EPA had been working to identify measures that can better demonstrate health-based outcomes of implementing drinking water regulations to respond to requests from the Office of Management and Budget. During the December 2006 Council meeting, the Agency asked the Council to allow the subgroup to work with the Agency in order to develop recommendations to guide EPA's efforts.

The subgroup met several times during 2007 and presented their recommendations to the full Council in November. The Council recommended that EPA consider incorporating prototype strategic targets in its 2009-2014 Strategic Plan for the disinfection byproduct Total Trihalomethanes (TTHMs) and the microbial pathogen *Cryptosporidium*. The Council provided a specific framework for how measures for each contaminant should be developed. The full language of the recommendation is included as an enclosure to this letter. The Council also recommended that EPA (1) continue to work with others, including NDWAC, in developing and implementing the methodologies for the measures, (2) continue to work with states to institute an ongoing data-sharing process to support current and future drinking water rules and any related performance measures, and (3) minimize additional burdens on water systems and states associated with implementing these performance measures.

Status of Previous Recommendations

I know that you greatly value the efforts of, and advice provided by, the Agency's federal advisory committees. Therefore, I am pleased to inform you that the revisions to the drinking water Lead and Copper Rule that were finalized by the Agency last fall significantly incorporated the June 2006 recommendations made by the Council with respect to Public Education provisions of the rule. The efforts of the Council and its working group were critical to our ability to successfully address this important issue in a timely manner and we believe their changes will substantially improve implementation of the rule. The Office of Cooperative Environmental Management recognized the

Council's effort with an Honorable Mention during the 2007 FACA Impact Award ceremony held this past November.

A copy of the detailed summary of the NDWAC's November meeting and additional information about the Council are available on the Office of Ground Water and Drinking Water web site at www.epa.gov/safewater/ndwac.html. If you have any questions or need additional information on the NDWAC's recommendations or any other matters concerning the Council, please contact me at 564-4094.

Sincerely,

Veronica Blette

Veronica Blette
Designated Federal Officer
National Drinking Water Advisory Council

Enclosure

cc: Brian Ramaley, Chair, National Drinking Water Advisory Council
Gregg Grunenfelder, Acting Chair, National Drinking Water Advisory Council
Benjamin H. Grumbles, Assistant Administrator for Water
Cynthia C. Dougherty, Director, Office of Ground Water and Drinking Water

Enclosure

NDWAC Recommendations for Drinking Water Performance Measures
Fall 2007

In support of EPA's efforts to create health-outcome-based performance measures of the national drinking water program, the National Drinking Water Advisory Council (NDWAC) recommends the following:
After considering a number of possible approaches, contaminants, and data issues, NDWAC recommends performance measures focused on risk reduction relating to recently promulgated rules. Accordingly, NDWAC strongly recommends that EPA incorporate prototype strategic targets in its 2009-2014 Strategic Plan for two contaminant categories:

1. Chemical Contaminants—Total Trihalomethanes (TTHMs)
2. Microbials—*Cryptosporidium* (*Crypto*)

In doing so, EPA should continue to work with others, including NDWAC, in developing and implementing the methodologies described below.

Framework for Model-Based Approach for the TTHM Measure

Health-Based Measure: *Avoided bladder cancer cases attributable to the national reduction of average concentration of TTHMs observed resulting from the implementation of the Stage 1 and Stage 2 Disinfectant and Disinfection Byproduct (DBP) Rules.*

NDWAC recommends EPA use the analytical concepts and computational methods from the Stage 2 DBP Rule Economic Analysis (Stage 2 EA) to estimate the annual reduction in the number of bladder cancers attributable to TTHMs resulting from implementation of the Stage 1 and Stage 2 DBP Rules. The analytical concepts to be used include the bladder cancer risk attributable to drinking water, a population weighted national TTHM average, the relationship between TTHM reduction and bladder cancer incidents attributable to drinking water, and cessation lag (the time delay between reduction in exposure and realization of the predicted health benefits).

There are three basic steps to this health based measure. First, EPA should use the Stage 2 EA to establish a pre-Stage 1 baseline estimate of the number of bladder cancer cases attributable to drinking water. EPA will then estimate a target number of annual cancer cases to be avoided due to implementation of the Stage 1 and Stage 2 rules. Finally, in 2014 EPA will evaluate if implementation of the rules is achieving this estimate.

Implementation of this measure methodology will require EPA to work with state Drinking Water Programs to collect Stage 1 and Stage 2 DBP Rule compliance monitoring data. NDWAC recommends EPA model their information collection efforts after the methodology used for the six year review ICR conducted in 2007.

In estimating a target reduction for 2014, EPA should take into account and, to the extent possible given available data, adjust for changes in sampling frequency and location from Stage 1 to Stage 2.

In accounting for cessation lag, NDWAC recommends EPA utilizes a twenty year time horizon to estimate the total annual health benefits recognized by reductions in the national average TTHM concentrations achieved by 2014.

Framework for Model-Based Approach for the *Cryptosporidium* Measure

Health-Based Measure: *Annual cases avoided nationally of endemic Cryptosporidiosis illnesses during attributable to implementation of the Long Term 2 Enhanced Surface Water Treatment Rule.*

NDWAC recommends EPA use the concepts and computational methods from the Long Term 2 Surface Water Treatment Rule Economic Analysis (LT2 EA) to estimate the number of annual endemic cases of cryptosporidiosis avoided as a result of implementation of the LT2 Rule. The concepts include estimating source water *Cryptosporidium* occurrence, changes in treatment resulting from LT2 rule provisions, and estimating disease reduction associated with the reduction in exposure to *Cryptosporidium*.

There are three basic steps for health based measure. First EPA will estimate pre-LT2 cryptosporidium cases from exposures using the concepts from the LT 2 EA. EPA will then estimate a target number of cases avoided based on available monitoring and LT2 EA data. Finally, in 2014, using additional monitoring data and the LT2 EA analysis, EPA will evaluate how well the rules are achieving this estimate. EPA would estimate the cases of *Cryptosporidiosis* avoided by taking the pre- and post-LT2 rule *Crypto* occurrence levels and the LT2 EA dose-response relationship to calculate the *Cryptosporidiosis* cases under each scenario.

NDWAC recommends EPA make adjustments to the EA assumptions to account for the additional source water monitoring data and the actual binning outcomes resulting from those data that will be available in 2014 but not in 2008. Due to large range of values resulting from the source water occurrence data, NDWAC recommends EPA the cases avoided be presented as both a percentage and a range with accompanying explanation.

Finally, in addition to the quantitative analysis focusing on LT2 treatment requirements, NDWAC recommends that EPA acknowledge and discuss the other activities of water systems and drinking water programs that are contributing to the reduction in microbial contamination in finished water. These activities could include bringing higher quality water sources on-line, improving wastewater treatment to remove or inactivate *Crypto*, and implementing other source water protection measures.

Data Collection

In light of EPA's recent success in building trust and cooperation with states in regards to data collection, NDWAC recommends that EPA continue to work with states to institute an ongoing data-sharing process to support current and future drinking water rules and any related performance measures. EPA's should minimize additional burdens on water systems and states associated with implementing these performance measures.