



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 16, 2005

Subject: Stage 2 Disinfection Byproducts Rule (DBP2) Action Items

Dear Water Supply Official:

The EPA adopted the Stage 2 Disinfection Byproducts Rule (DBP2) December 15, 2005. This rule will impact all community public water systems (and nontransient noncommunity public water systems that serve more than 10,000 people) immediately. This rule will be directly implemented by TCEQ in its role as primacy agency for the Safe Drinking Water Act and its amendments.

We understand that new regulations can be difficult for public water systems. We will be providing guidance to help you meet these new rules. Over the next few months, we will be sending more detailed information about new requirements for your system. This letter is an overview of upcoming action items.

Overview of DBP2

EPA is adopting DBP2 to strengthen regulations for disinfection byproducts (DBPs), specifically trihalomethanes (THMs) and haloacetic acids (HAAs). These chemicals have been identified as potential human carcinogens. During the first part of rule implementation, sampling sites will be reevaluated. During the second part of rule implementation, the method for determining compliance will be changed to be fairer to all customers in a distribution system.

Schedule

As with most rules, larger systems will have to comply first. The big difference in this rule is that systems that purchase from larger systems will be on the schedule of the larger system. This group of interconnected systems is a "combined distribution system."

The population breaks for scheduling DBP2 activities are:

- Group 1: Systems that serve 100,000 people or more, and interconnected systems of any size;
- Group 2: Systems that serve 50,000 to 100,000 people, and interconnected systems of any size;
- Group 3: Systems that serve 10,000 to 50,000 people, and interconnected systems of any size; and
- Group 4: Systems that serve fewer than 10,000 people.

We will be sending a special mailout to give you the opportunity to check and update TCEQ's data for your interconnections so we can schedule your system correctly.

Initial Distribution System Evaluation (IDSE)

The first thing you will have to do is comply with the Initial Distribution System Evaluation (IDSE) requirement (in the next one to two years). The purpose of the IDSE process is to determine new, DBP2, compliance sampling sites in the distribution system. The TCEQ will send you detailed information on when you will need to start the IDSE and submit related reports.

There are four ways to comply with the IDSE:

- (1) Perform IDSE sampling through TCEQ's sample collection contractor;
- (2) Serve fewer than 500 people, and certify that your current compliance site is at maximum water age;
- (3) Have results from previous monitoring that are all less than half of the maximum contaminant levels for trihalomethanes and haloacetic acid; or
- (4) Do a System Specific Study as described in the rule.

We will send you a letter that provides more information on these options.

Locational Running Annual Average (LRAA)

After the IDSEs are complete, in about six years, the method for determining DBP compliance will change. Right now, compliance is determined using a running annual average (RAA) of results from all sampling locations in a distribution system. That way, some customers can be drinking water that has high levels of DBPs, but the system can remain in compliance by averaging in results from areas with low levels of DBPs. In the future, results at each individual sample location will be averaged. That will make the rule fairer for all customers.

Training and Assistance Opportunities

We will be providing guidance and assistance on the new rule requirements.

- TCEQ will host EPA webcasts at our offices in Austin on **January 17 and January 19, 2006** (both at noon till 3:00 pm CST). The January 17 webcast will provide an overview of DBP2 and the Long Term Stage 2 Enhanced Surface Water Treatment Rule (LT2). The January 19 webcast will cover implementation issues. To register for either of these webcasts, contact Debra Cerda by email at dcerda@tceq.state.tx.us or by phone at 512/239-6045.
- TCEQ is partnering with EPA Region 6 and Texas American Water Works Association to present a teleconference on **February 17, 2006** (9:30 -12:30 CST). This teleconference will be presented at 16 locations throughout the state, and will cover DBP2 and the LT2. You can find more information and register at www.tawwa.org, or by calling Mike Howe at 512/238-9292.
- TCEQ will present information on Texas implementation of the new rule on **May 10, 2006** at the Environmental Trade Fair at the Austin Convention Center. You can learn more about the Trade Fair and register online at www.tceq.state.tx.us/assistance/events/etfc/etf.html, or get more information by email at etfc@tceq.state.tx.us or by phone at 512/239-3150.
- The EPA website has the rule language, fact sheets and links to additional sites. The EPA DBP2 website is at: www.epa.gov/safewater/disinfection/stage2/index.html.

We will let you know when other opportunities become available.

Again, we realize that changes can be difficult, and we will help you with these changes. For information about the new DBP2 rules, please contact Alicia Diehl by email at adiehl@tceq.state.tx.us, or by phone at 512/239-1626. For assistance on this or other drinking water issues, you can always contact Public Drinking Water Section staff by email at www-pdws@tceq.state.tx.us, by telephone at 512/239-4691 (during normal business hours), or by mail at the letterhead address (please note Mail Code 155).

Sincerely,



Buck Henderson, Manager
Public Drinking Water Section

Attachment: Frequently Asked Questions About DBP2

Frequently Asked Questions About the Stage 2 Disinfection Byproducts Rule (DBP2)

What are disinfection byproducts (DBPs)?

Disinfection of drinking water is one of the major public health advances in the 20th century. One hundred years ago, typhoid and cholera epidemics were common through American cities; disinfection was a major factor in reducing these epidemics. Unfortunately, disinfectants can react with naturally-occurring materials in the water to form DBPs, which may pose health risks. The specific DBPs that are discussed here are two families: trihalomethanes (THMs) and haloacetic acids (HAAs).

What systems must comply with DBP2?

All community public water systems (PWSs) must comply with the rule. Nontransient noncommunity (NTNC) public water systems have to comply with DBP2, but NTNC systems that serve fewer than 10,000 do not have to do the Initial Distribution System Evaluation.

What are the requirements of DBP2?

The DBP2 rule requires system to determine the worst case sample sites for DBPs in their distribution system, then changes the compliance calculation to look at each sample site individually. The two main parts of the rule are the Initial Distribution System Evaluation (**IDSE**) for finding worst case sites, and locational running annual average (**LRAA**) for calculating compliance at every sample site.

Will the MCLs be lowered?

The maximum contaminant levels (MCLs) for total THMs and HAAs will remain the same. The MCL for the sum of the concentration of the four regulated THMs (TTHM) will stay 80 micrograms per liter (ug/L); the MCL for the sum of the five regulated HAAs (HAA5) will stay 60 ug/L. The LRAA will be used starting in about 2012.

What is an LRAA?

After the DBP2 sites are set through the IDSE process, compliance determination will change to use a locational running annual average (**LRAA**) instead of a running annual average (RAA) for all sites in the system. An LRAA is the yearly average of all the results at each specific sampling site in the distribution system.

What is the IDSE?

The Initial Distribution System Evaluation (**IDSE**) is a special sampling activity to find worst case areas for DBP formation. The IDSE process will result in selection of new DBP2 compliance sample sites to replace the DBP1 compliance sample sites.

What are the specific requirements of the IDSE?

The first requirement is to figure out which of the four ways to comply is appropriate for a water system. TCEQ will send Texas PWSs a letter saying which method we believe is appropriate, and give you a chance to confirm or correct our data. If you serve more than 500 people, and have had sample results over 40 ug/L for TTHM or 30 ug/L for HAA5, you will either have to do IDSE sampling or a System Specific Study. If you have to do the IDSE sampling, you will need to complete the IDSE plan that TCEQ sends you. If you want to do the System Specific Study, you should review the DBP2 rule language with your engineer and submit a plan to TCEQ. The DBP2 rule has very specific requirements for System Specific Studies, including specifications for the required hydraulic modeling, and requirements for sampling.

How can I comply with the IDSE?

TCEQ will send you more information on the options your system can use to comply. There are four ways to comply with the IDSE:

- (1) Do standard IDSE sampling;
- (2) Serve fewer than 500 people (small system waiver);
- (3) Have less than 40 ug/L TTHM and less than 30 ug/L HAA5 in all DBP1 compliance samples (40/30 waiver);
or
- (4) Do a System Specific Study as described in the rule.

TCEQ will send you more information on these options.

How many samples do I have to take for IDSE?

Please look for letters from TCEQ announcing your system's specific compliance options and number of samples.

How will TCEQ help with the IDSE?

TCEQ will send you letters summarizing your system's data, and the IDSE compliance method that data indicates. The letters will guide you through the process. For any reports you need to generate, TCEQ will send you a report form to sign, certifying that our data is correct. If you find that TCEQ's data is incorrect, you will have the opportunity to submit changes. Most systems should not have to hire a consultant to complete the IDSE (except for those doing System Specific Studies) though some systems may find it helpful. TCEQ will collect IDSE samples using our normal contract samplers.

What letters will TCEQ send PWSs?

(1) Confirmation of Interconnects

We will send you a letter reporting who your PWS provides water to or receives water from. **These letters will be sent to PWS Responsible Parties in early 2006.** If our information is correct, you will sign the report and return it, keeping a copy for your Monitoring Plan. If our information is incorrect, you will strike through canceled interconnects, or write in new ones, sign the report to certify that the data is right, and send that new data back for us to correct in our database.

(2) IDSE Plan and Confirmation of DBP1 Sites (IDSE Sampling / Small System Waiver / 40/30 Waiver)

When your compliance time gets close, TCEQ will send a letter that says which method each system will use to comply with the IDSE: IDSE Sampling, Small System Waiver, or 40/30 Waiver. This letter will also list the sample sites that you are using now for compliance. If we send you a letter providing a waiver, you will need to sign that waiver certifying that the data is correct, send the original to TCEQ, and keep a copy for your Monitoring Plan. The waiver may require you to select additional sample sites for DBP2, in which case you will be given instructions, and asked to list those. If you must do IDSE Sampling, you will need to fill out the IDSE Sample Site Selection form (following the instructions that TCEQ provides), return it to TCEQ, and keep a copy for your Monitoring Plan.

(3) IDSE Report

When the IDSE is over, TCEQ will send a letter summarizing the results. This will include the IDSE Report Form that lists the proposed DBP2 compliance sites and current DBP1 compliance sites. You will need to check to make sure you agree with the sites, sign and return the report, or propose different sites with justification. After these sites have been certified by the PWS and TCEQ, the system can not change sample locations without TCEQ approval.

Will IDSE sampling results count for compliance?

No. Until the LRAA calculation becomes effective in about 2012, only samples collected at DBP1 routine compliance sample sites will be used to determine compliance. So, you can see how important it will be to verify those sites with TCEQ when you get our letter.

When will my water system have to comply?

Compliance deadlines are based on the sizes of the public water systems. Large systems, and the systems connected with them, have to comply first. Wholesale and consecutive systems of any size must comply with the requirements of the DBP2 on the same schedule as required for the largest system in the "combined distribution system." Smaller systems' compliance dates will be phased in over the next few years. IDSE activities will happen in 2006 through 2008. The new LRAA calculations will start being used in 2012 for large systems, later for smaller systems.

What is a "combined distribution system?"

The combined distribution system is defined as the interconnected distribution system consisting of all systems that provide water and the systems that receive finished water. The population of the largest system in the group sets the schedule for the whole group. The population cut-offs for scheduling are 100,000, 50,000, and 10,000. The four scheduling groups for DBP2 are:

DBP2 Group 1: Systems and combined distribution systems serving **100,000 or more** people

DBP2 Group 2: Systems and combined distribution systems serving **50,000 to 99,999** people

DBP2 Group 3: Systems and combined distribution systems serving **10,000 to 49,999** people

DBP2 Group 4: Systems and combined distribution systems serving **9,999 or fewer** people

If a PWS has no interconnects, that PWS just follows the population cutoffs as given.

When will the Initial Distribution System Evaluation (IDSE) requirements apply to my system?

The first thing that will apply to your system is the IDSE. TCEQ will send letters to PWSs when their start time is near.

DBP2 Group 1: Fill out and return IDSE Sample Plan or Waiver by **October 1, 2006**

DBP2 Group 2: Fill out and return IDSE Sample Plan or Waiver by **April 1, 2007**

DBP2 Group 3: Fill out and return IDSE Sample Plan or Waiver by **October 1, 2007**

DBP2 Group 4: Fill out and return IDSE Sample Plan or Waiver by **April 1, 2008**