

STAGE 2 DISINFECTION BYPRODUCTS

By Jeff Swanson, Circuit Rider

For those of you that not only add a disinfectant to your water, but “sell” water with a disinfectant in it, the new Stage 2 Disinfection Byproducts Rule (Stage 2 DBPR) will be knocking on your door as early as October 1, 2006. The subsequent information also describes the Initial Distribution System Evaluation (IDSE) compliance requirements. In the following article, I have provided some information that was provided for water systems through the National Rural Water Association (NRWA). If you have not yet received information regarding this rule, I hope that the following information will prove useful.

IDSE’s are one-time studies conducted by water systems to identify distribution system locations with potentially high concentrations of trihalomethanes (TTHMs) and haloacetic acids (HAA5s). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR. The user should take special note that the IDSE monitoring locations must be different from the Stage 1 compliance monitoring locations. These sites are not used because the goal of this plan is to find other areas in your distribution system that may have higher disinfection byproducts.

The following applies to systems that DO NOT purchase water from another water system:

- I. You must comply with the IDSE component of the regulation IF:
 - You are a community water system that disinfects – If YES, CONTINUE to STEP II. If NO, you are not required to comply with this rule; OR
 - You are a non-transient, non-community water system serving 10,000 or more people that disinfects – If YES, CONTINUE to STEP II. If NO, you are required to comply with the other requirements of the Stage 2 rule, but you are not required to

comply with the IDSE component of the regulation.

- II. Do you serve less than 500 people? If no, CONTINUE to STEP III
 1. Do you have TTHM and HAA5 data that was analyzed between 2002 and today?
 - YES - you automatically have a small system waiver and are not required to do anything until October 1, 2013 (Continue Stage 1 monitoring), unless contacted by the state or EPA.
 - NO - collect samples as soon as possible to become eligible for the small system waiver (Contact your state regulatory agency for monitoring guidance and deadline).
- III. Do you have data that is close to 0.040 mg/L for TTHM’s and close to 0.030 mg/L for HAA5? If no, CONTINUE to STEP IV
 1. Do you have annual samples from any two consecutive years (2005-2008: this means you can collect samples in future years if you think you are close) that are 0.040 mg/L or lower for TTHM and 0.030 mg/L or lower for HAA5 (Note: you cannot have any TTHM or HAA5 monitoring violations)?
 - YES – Submit 40/30 Certification contained in Appendix A by April 1, 2008 (If you serve more than 10,000 people see Appendix B for an earlier deadline).
 - NO – Proceed to Number 2 below.
 2. Are your monitoring results close to 0.040 mg/L for TTHM and close to 0.030 mg/L for HAA5?
 - YES – Work with Oregon Association of Water Utilities and state regulatory agency to explore other possibilities such as operational changes.
 - NO – CONTINUE to STEP IV

IV. Collect the following information and CONTINUE to STEP V:

- ❑ All TTHM and HAA5 monitoring results or results for the past 4 years (If applicable).
- ❑ All total coliform results or results for the past 4 years.
- ❑ Distribution system map or schematic – This can be as simple as a hand drawing or a photocopy of a city map, or a detailed GPS schematic.
- ❑ Stage 1 D/DBP monitoring plan (Systems serving less than 500 people may not have this plan).
- ❑ Sanitary survey (Please call your state regulatory agency if you do not have a sanitary survey completed for your system).
- ❑ Water production logs and amount of water purchased. Monthly operating reports generated for the State can be used to obtain this information (If applicable).

V. Has your system been evaluated using hydraulic modeling?

- ❑ YES – Contact your state regulatory agency for guidance.
- ❑ NO – Complete and submit the IDSE Monitoring Plan included as Appendix C to your state regulatory agency by April 1, 2008.

The following is for systems that DO purchase their water from another system:

Systems should understand that the compliance deadlines contained in this document are for systems that purchase water from systems serving less than 10,000 people in the “combined distribution system”. The term “combined distribution system” simply means that the

compliance deadline is based on the largest system that you purchase water from or sell water to. For example IF a small mobile home park purchases water from “Small Town USA” serving 5,000 people AND Small Town USA purchases water from “Huge City USA” (who serves 120,000 people), THEN the small mobile home park would be required to meet the earlier compliance deadline for “Huge City USA” contained in Appendix B. This also means that IF the small mobile home park sells water to “Huge City USA”, THEN they would be required to meet the earlier compliance deadline for Huge City USA contained in Appendix B.

VI. You must comply with the IDSE component of the regulation IF:

- ❑ You are a community water system that purchases water from a CWS that disinfects (Please contact your state regulatory agency if you use ozone) – If YES, CONTINUE to STEP II. If NO, you are not required to comply with this rule; **OR**
- ❑ You are a non-transient, non-community water system serving 10,000 or more people that purchases disinfected water (Please contact state regulatory agency if they use ozone) – If YES, CONTINUE to STEP III. If NO, you are required to comply with the other requirements of the Stage 2 rule, but you are not required to comply with the IDSE component of the regulation.

VII. Does your utility serve less than 500 people? If no, CONTINUE to STEP III

1. Do you have TTHM and HAA5 data that was analyzed between 2002 and today?
 - ❑ YES - you automatically have a small system waiver and are not required to do anything until October 1, 2013, unless contacted by the state or EPA (Continue Stage 1 monitoring). (Note: If you buy water from a system that serves more than 10,000 people you will be required to do stage 2

compliance monitoring before Oct 1, 2013).

- NO - collect samples as soon as possible to become eligible for the small system waiver (Contact your state regulatory agency for monitoring guidance and deadlines).

VIII. Do you have data that is close to 0.040 mg/L for TTHM's and close to 0.030 mg/L for HAA5? If no, CONTINUE to STEP IV

3. Do you have annual samples from any two consecutive years (2005-2008): this means you can collect samples in future years if you think you are close, that are 0.040 mg/L or lower for TTHM and 0.030 mg/L or lower for HAA5 (Note: you cannot have any TTHM or HAA5 monitoring violations)?

- YES – Submit 40/30 Certification contained in Appendix A by April 1, 2008.
- NO – Proceed to Number 2 below.

4. Are your monitoring results close to 0.040 mg/L for TTHM and close to 0.030 mg/L for HAA5?

- YES – Work with Oregon Association of Water Utilities and state regulatory agency to explore other possibilities such as operational changes.
- NO – CONTINUE to STEP IV

IX. Collect the following information and CONTINUE to STEP V:

- All TTHM and HAA5 monitoring results or results for the past 4 years (If applicable).
- All total coliform results or results for the past 4 years.
- Distribution system map or schematic – This can be as simple as a hand drawing or a photocopy of a city map, or a detailed GPS schematic.

- Stage 1 D/DBP monitoring plan (Systems serving less than 500 people may not have this plan).
- Sanitary survey (Please call your regulatory agency if you do not have a sanitary survey completed for your system).
- Water production logs and amount of water purchased. Monthly operating reports generated for the State can be used to obtain this information (If applicable).

X. Has your system been evaluated using hydraulic modeling?

- YES – Contact your state regulatory agency for guidance.
- NO – Complete and submit the IDSE Monitoring Plan included as Appendix C to your state regulatory agency by April 1, 2008.

Appendix A, B, C and Attachment 1 can be obtained by visiting our web site home page at www.oawu.net or via fax by contacting the office at 503-873-8353.