Drinking Water Units (Mail Code: 8P-W-DW) Environmental Protection Agency Region 8 1595 Wynkoop Street Denver, CO 80202-1129 Business Hours Contact: 1- 800-227-8917 Emergency After-Hours voice mail: 303-312-6327 FAX Number: 1-877-876-9101

# **Stage 2 Disinfectants and Disinfection Byproducts Rule**

## (Stage 2 DBPR)

## **Compliance Monitoring Plan Template**

For

## **Public Water Supply Systems**



#### July 2013

This Template is provided by the Environmental Protection Agency in Region 8 (EPA R8) for Public Water Systems to help prepare their Monitoring Plans for the Stage 2 DBPR. This document provides guidance to public water systems. The document is not, however, the actual Environmental Protection Agency regulation, nor is it a regulation itself. The actual regulation can be found in 40 CFR (Code of Federal Regulations) Part 141.622(a)(1)

## Introduction

For the Stage 2 DBPR, each applicable public water supply system (community and non-transient noncommunity systems delivering chlorinated water for public consumption) must develop a monitoring plan to be kept on file for Environmental Protection Agency (EPA) and public review (40 CFR §141.622(a)(1)). If you are a subpart H system (system using a surface water source or a ground water source which is under the direct influence of surface water) that serves greater than 3,300 people, you must submit a copy of the Stage 2 monitoring plan to EPA R8 at the following address at least six (6) months prior to the date you conduct your Stage 2 monitoring. However, we urge all water systems submit a copy of the monitoring plan for our review and approval so that we can track your sampling location(s) in our data base for compliance determinations. The monitoring plan must show how a system intends to comply with the monitoring requirements of the rule. The monitoring plan serves as a uniquely tailored roadmap for each system to demonstrate that the water quality self-monitoring performed by the system is representative of the water distributed to consumers and is consistent with regulatory requirements.

This Stage 2 monitoring plan template has been created in a fill-able format to facilitate the process for small water system operators. If you would like to have this template in electronic format, please email us and we will forward the fill-able electronic version to you. Or you can visit the Drinking Water On Line website at http://www.epa.gov/region8/waterops and download a copy of this template.

## Please submit your completed Stage 2 Monitoring Plan to:

Stage 2 DBPR Rule Manager Mail Code: 8P-W-DW USEPA R8 1595 Wynkoop Street Denver, CO 80202-1129

## Revisions

If you have any revisions in the future, please submit a revised Monitoring Plan Summary Sheet with each revised element to the above address.

#### I. GENERAL INFORMATION

#### A. Public Water Supply System Information

1.	PWS ID Number:    Date Submitted	
2.	System Name:	
3.	System Address:	
4.	E-mail Address:	
5.	Contact Name:	
6.	Contact's Phone Number:	
7.	System Type: Community Non-Transient Non-Community	
8.	Total Retail Population Served:	
9.	Source Water Type: Subpart H Ground Water	

			Written			Rules Cov	vered by the	e Agreemen	t	
PWS Name	PWS ID#	Population Served	Agreement to be Integrated (Yes/No)	TCR	IOC	OC	Rad	Pb/Cu	DBP	SWTR

			Written			Rules Cov	vered by the	Agreemen	t	-
PWS Name	PWS ID#	Population Served	Agreement to be Integrated (Yes/No)	TCR	IOC	OC	Rad	Pb/Cu	DBP	SWTR

Table Legend:

TCR: Microbiological Pb/Cu: Lead & Copper IOC: Inorganic ChemicalOC: Organic ChemicalRad: RadionuclidesDBP: Disinfectants and Disinfection ByproductsSWTR: Surface Water Treatment Rule

## B. Public Water Supply System Operations

1.	Residual Disinfectant type: Chlorine	Chloramines	Other				
2.	Number of Disinfected Sources:						
	Surface	GWUDI	Ground Water	Purchased			
3.	Do you provide additional treatment to any water purchased from another Public Water System? Yes No						
4.	Number of Entry Points to your Distribution System:						
5.	Number of Routine Microbiological Samples Submitted to EPA: per Month/Quarter						
6.	Number of Chlorine Booster Statio	ns in your Distribution Sys	stem:				

Signature of Owner or Authorized Representative and Title

Date

#### *II. STAGE 2 DBPR REQUIREMENTS*

A. Number of Compliance Monitoring Sites (refer to Addendum #1)
 Total \_\_\_\_\_: Highest TTHM sites\_\_\_\_\_, and Highest HAA5 sites\_\_\_\_\_

#### B. Justification of Stage 2 Compliance Monitoring Sites

Stage 2 Monitoring Site	Site Type	Justification
ID (from map)	(check one)	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	
	Highest TTHM	
	Highest HAA5	

- C. Compliance Monitoring Frequency (check one): Yearly, during peak historical month \_\_\_\_\_\_ Quarterly (every 90 days) \_\_\_\_\_
- D. Peak Historical Month \_\_\_\_\_ Peak Historical Month is Based on (check all that apply) High TTHM Level \_\_\_\_\_ High HAA5 Level \_\_\_\_\_ Warmest Water Temperature\_\_\_\_ Other (please explain) \_\_\_\_\_
- E. Compliance Monitoring Starts (Refer to Addendum #2):\_\_\_\_\_

#### F. Proposed Stage 2 DBPR Compliance Schedule

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week) <sup>*</sup>							
Monitoring Site ID	Period 1	Period 2	Period 3	Period 4				

<sup>\*</sup>Period = Monitoring period.

Attach additional copies of this table if you need more room.

TTHM/HAA5 Locational Running Annual Average Compliance Calculation and Reporting Form (see attached Excel file)

*III.* SKETCH OF THE DISTRIBUTION SYSTEM (Include other systems in the Combined Distribution System (CDS) if approved for reduced CDS monitoring)

### The Stage 2 DBPR Monitoring Plan Instructions and Addendums

The Stage 2 Monitoring Plan form includes the following sections:

- I. General Information
- II. Stage 2 DBPR Requirements
- III. Sketch of the Distribution System

This section provides guidance on the completion of this form.

#### I. <u>General Information</u>

- A. Public Water Supply System Information
  - 1. *PWS ID Number* Enter your PWS ID number here. This number is typically assigned by EPA

*Date Submitted* – Enter either the date that you are submitting the plan electronically, putting it in the mailbox, or dropping it off with an express delivery service. Be sure to submit your plan before starting your Stage 2 sampling

- 2. *System Name* Enter the name of your system
- 3. *System Address* Enter the primary mailing address for your system
- 4. *E-mail Address* Enter the e-mail address for your primary contact person
- 5. *Contact Name* Enter the contact information of the person who is submitting the plan and is available to answer questions for your system from EPA
- 6. *Contact's Phone Number –* Enter the phone number for your contact person
- 7. *System Type* Put a check mark in the appropriate box to identify whether your system is a Community or a Non-Transient Non-Community
- 8. *Total Retail Population Served* For Community water systems, enter the retail number of people served by your PWS. Do not include the population served by consecutive systems that purchase water from you. For non-transient non-community water systems, enter the total number of people served by your PWS.
- 9. Source Water Type Put a check mark in the appropriate box to identify whether your system is a Subpart H system or a ground water system. If you use any surface water or GWUDI as a source, mark the Subpart H box
- 10. *Number of sources from which your system purchases finished water from* Enter the number of public water systems your system purchases water from; list each of them in the table below and put a mark in the appropriate box(es)
- 11. *Number of systems your system sells finished water to* Enter the number of public water systems your system sells water to; list each of them in the table below and put a mark in the appropriate box(es)
- B. Public Water Supply System Operations

1. *Residual Disinfectant Type* - Enter check marks in the boxes that apply for the system

- 2. *Number of Disinfected Sources* Enter the number of sources of each type which the system disinfects
- 3. Do you provide additional treatment to any water purchased from another Public *Water System?* Answer either "yes" or "no" if the system treats water purchased from another system

- 4. *Number of Entry Points to the Distribution System* Enter the number of entry points to the system
- 5. *Number of Routine Microbiological Samples Submitted to EPA per Month/Quarter* Enter the number of routine microbiological samples results which are reported to EPA for each reporting period.
- 6. *Number of Chlorine Booster Stations in your Distribution System* Enter the number of chlorine booster stations in the system

## II. <u>Stage 2 DBPR Requirements</u>

- A. Number of Compliance Monitoring Sites (refer to Addendum #1) Refer to Addendum #1, enter your total number of compliance monitoring sites. Then enter the number of the highest TTHM or highest HAA5 monitoring sites, respectively.
- B. Justification of Stage 2 Compliance Monitoring Sites In the table below, list the name and location of each of the monitoring sites you have determined to comply with Stage 2 DBPR. Include the "justification" for each site in the box adjacent to the site selected.
- *C. Compliance Monitoring Frequency* Enter a check mark in the appropriate space for the frequency of monitoring required to meet Stage 2 DBPR requirements.
- *D. Peak Historical Month* Enter the name of the month in which the highest levels of TTHM or HAA5 occurs. Enter a check mark in the space for all that apply. If "Other" is selected, please provide an explanation.
- *E. Compliance Monitoring Starts* Enter the Month, Week (1<sup>st</sup>, 2<sup>nd</sup> 3<sup>rd</sup>, or 4<sup>th</sup>) and year when compliance monitoring begins to meet the Stage 2 DBPR requirements.
- *F. Proposed Stage 2 DBPR Compliance Schedule* Enter the ID for each monitoring site in the previous *Compliance Monitoring Sites* table (page #5). Enter your proposed sampling schedule for the number of monitoring periods identified. The entry can be a specific date or week and can be in a number of different formats. This subsequent monitoring cycle will continue until EPA determines otherwise. For example:
  - 10/15/2013
  - $2^{nd}$  week in Oct, 13
  - Week of 10/15/2013

To determine the first monitoring time for quarterly monitoring frequency: Start with your *Peak Historical Month in 2014* and work backwards to determine the beginning monitoring month which must fall within the first full calendar quarter that includes the compliance date in the table of Addendum #2.

To determine the first monitoring time for less than quarterly monitoring frequency: Monitor in the peak historical month no later than 12 months after the compliance date in the table of Addendum #2.

### III. Sketch of the Distribution System

Either in the space below or as an attachment provide a diagram of the system, including:

- General lay out of the distribution piping
- System features such as wells, treatment plants, storage tanks, chlorination facilities
- Proposed sample location(s) for Stage 2 compliance monitoring

1 2

## Addendum #1 Stage 2 DBPR Routine Monitoring Locations and Frequencies

			Distribution System Monitoring Location					
Source Water Type	Population Size	Monitoring Frequency <sup>1</sup>	Total per monitoring period <sup>2</sup>	Highest TTHM locations	Highest HAA5 locations	Existing Stage 1 compliance location		
	<500	per year	2	1	1	-		
	500-3,300	per quarter	2	1	1	-		
	3,301-9,999	per quarter	2	1	1	-		
Subpart H	10,000-49,999	per quarter	4	2	1	1		
1	50,000- 249,999	per quarter	8	3	3	2		
	<500	per year	2	1	1	-		
	500-9,999	per year	2	1	1	-		
Ground Water	10,000-99,999	per quarter	4	2	1	1		
	100,000- 499,999	per quarter	6	3	2	1		

All systems must monitor during month of highest DBP concentrations.

Systems on quarterly monitoring must take dual sample sets every 90 days at each monitoring location, except for subpart H systems serving 500-3,300. Ground water systems serving 500-9,999 on annual monitoring must take dual sample sets at each monitoring location. All other systems on annual monitoring and subpart H systems serving 500-3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations respectively. Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location, (and month, if monitored annually).

Schedule	Retail Service Population	Stage 2 compliance monitoring starts on
#1	≥100,000	4/01/2012
#2	50,000-99,999	10/01/2012
#3	10,000-49,999	10/01/2013
#4	<10,000	10/01/2013*

## Addendum #2 Stage 2 DBPR Schedule

\*10/01/2014 if Cryptosporidium monitoring in source water in required

If you are on quarterly (every 90 days) monitoring schedule, you must begin monitoring in the first full calendar quarter that includes the compliance date in the table.

If you are on less than quarterly monitoring schedule, you must begin monitoring in your peak historical month no later than 12 months after the compliance date in this table.