

Preparing the Standard Monitoring IDSE Report

-
-
-

5.3 Selecting Stage 2 DBPR Compliance Monitoring Sites and Preparing the IDSE Report

Every system that conducts standard monitoring **must** use results from Stage 1 DBPR compliance monitoring and standard monitoring to select Stage 2 DBPR compliance monitoring sites. You **must** include your monitoring results and recommended Stage 2 compliance monitoring sites in an IDSE Report.

This section presents the required protocol for selecting Stage 2 DBPR compliance monitoring sites and provides guidance for preparing an IDSE report.

EPA has developed a **Form** for the **IDSE Report for Standard Monitoring for Systems Serving < 10,000**, presented in Section 5.3.3 and available electronically as part of the **IDSE Tool**. You are not required to use this form; you may use the Excel spreadsheet form or the Word form available on EPA Region 10's website instead. Examples of completed reports can be found on EPA Region 10's IDSE report website.

The IDSE Tool is available on the EPA Headquarters website at <http://www.epa.gov/safewater/disinfection/stage2>.



IDSE ToolII

Exhibit 5.6 Required Elements of Your IDSE Report for Standard Monitoring

- Explanation of any deviations from approved standard monitoring plan
- TTHM and HAA5 analytical results from Stage 1 DBPR monitoring and IDSE standard monitoring
- Recommendations and justification of Stage 2 DBPR monitoring sites and sampling dates
- If changed from the approved standard monitoring plan:
 - Distribution system schematic
 - Population served by the system
 - System type (subpart H or ground water)

5.3.1 Selecting Stage 2 DBPR Compliance Monitoring Locations

All systems serving < 10,000 people must select one highest TTHM and one highest HAA5 site for Stage 2 DBPR compliance monitoring. Some small systems may be able to use one location as both their highest TTHM and highest HAA5 site if their highest concentrations occur at the same location and during the same month.

The required procedure for selecting Stage 2 compliance monitoring locations is laid out in the Stage 2 rule and summarized below.

Step 1: Calculate TTHM and HAA5 LRAA for each site

You should begin the Stage 2 site selection process by calculating the locational running annual average (LRAA) for each standard monitoring site and Stage 1 DBPR compliance monitoring site. Note that because the duration for IDSE standard monitoring is one year, the LRAA for each standard monitoring site is equivalent to the average of all TTHM or HAA5 data collected at the location (either one or four points depending on your IDSE standard monitoring frequency). The LRAA for each Stage 1 DBPR compliance monitoring site should be the LRAA for the year that you conducted standard monitoring (either one or four data points depending on your Stage 1 compliance monitoring frequency). You should consider using a spreadsheet to store your data and calculate your LRAAs.

For systems collecting quarterly data:

$$\text{LRAA} = (\text{Q1} + \text{Q2} + \text{Q3} + \text{Q4}) / 4$$

For systems collecting annual data (once / year):

$$\text{LRAA} = \text{result for warmest temperature month}$$

Step 2: Select Stage 2 sites based on LRAA's

Next, select your Stage 2 DBPR compliance monitoring sites based on your LRAA results:

- Select the site with the highest TTHM LRAA as your Highest TTHM site.
- Select the site with the highest HAA5 LRAA as your Highest HAA5 site.

If the highest HAA5 LRAA occurs at the same location and during the same month as the highest TTHM LRAA, you may be able to use the same site to represent both your Highest TTHM and Highest HAA5 site if you meet other criteria. See last page of this document for more information.

Do I always need to follow the protocol for selecting Stage 2 DBPR compliance monitoring sites?

No, as long as you **justify your site selection**. Although sites should generally be selected using highest LRAAs, it is possible that slight differences between two LRAAs might not be as important as other factors for selecting sites. Other reasons that can be used to a site that is not the highest LRAA include:

- The site provides more complete geographic coverage of the entire distribution system
- The site allows you to maintain a historical record
- Sampling at that site provides the opportunity to collect other water quality or operational data (e.g., chloramine systems may want to collect nitrate or nitrite data at that site)

It is possible that EPA or your state may not concur with your justification and may require you to select different Stage 2 compliance monitoring sites.

5.3.2 Determining Your Stage 2 DBPR Compliance Monitoring Schedule

The first step in determining your Stage 2 DBPR compliance monitoring schedule is to select your peak historical month. You should use the peak historical month selected in your IDSE standard monitoring plan unless new data suggest another month.

You **must** conduct Stage 2 DBPR compliance monitoring during the peak historical month. If you are a subpart H system that serves more than 499 people, you must also conduct Stage 2 compliance sampling at 90 day intervals before and/or after the peak historical month.

The intent of the required time interval is to ensure that samples are representative of the quality of water over an extended period and do not over-emphasize either high or low concentrations of TTHM or HAA5 that might occur seasonally. For example, a system on quarterly monitoring could sample in the **third full week of every third month**. It is not necessary to sample all sites on the same day.

5.3.3 Preparing the IDSE Report for Standard Monitoring

Every system that conducts IDSE standard monitoring **must** prepare and submit an IDSE Report for Standard Monitoring. You should submit the report to EPA Region 10 if you are a schedule 1 or 2 water system and to your state if you are a schedule 3 or 4 water system.

EPA has developed a **Form** for the **IDSE Report for Standard Monitoring For Systems Serving < 10,000**, presented in this section and available electronically as part of the **IDSE Tool**. You are not required to use this form; you may use the Excel spreadsheet form or the Word form available from EPA Region 10 (see their website) instead. Exhibit 5.6 for a list of the minimum elements you must include in your IDSE report.

The IDSE Tool creates a custom form for your system and provides links to technical guidance from this manual. The tool is available on EPA's website at <http://www.epa.gov/safewater/disinfection/stage2>.



Before you begin Stage 2 DBPR compliance monitoring, you will also be required to prepare a Stage 2 DBPR compliance monitoring plan. In addition, if you are a subpart H system serving > 3,300 people, you must submit a copy of your Stage 2 compliance monitoring plan to the state. If you include **compliance calculation procedures** in your IDSE report, the report can meet the requirement of the plan, and you do not have to prepare or submit a separate plan. As a guide for specifying your compliance calculation procedures, refer to the Stage 1 DBPR, 141.133(b), and your Stage 1 compliance monitoring plan. Check with your state, as they may have different requirements under the Stage 2 DBPR. If you are a consecutive or wholesale system, your state may choose to use its special primacy authority to modify your Stage 2 compliance monitoring requirements. In this case, you should check with the state to see if they are going to use this authority. You should develop your IDSE report for the total number of required Stage 2 compliance locations for your system.

The IDSE report for standard monitoring form includes the following sections:

- I. General Information
- II. Stage 2 DBPR Requirements
- III. Monitoring Results
- IV. Justification of Stage 2 DBPR Compliance Monitoring Sites
- V. Peak Historical Month and Stage 2 DBPR Compliance Monitoring Schedule
- VI. Distribution System Schematic
- VII. Attachments

Sections of the form with an asterisk (*) are required by the Stage 2 DBPR. Examples of completed IDSE reports are in Appendix B of this manual and in the *IDSE Guidance Manual*. The rest of this section provides guidance on the completion of this form.

I. General Information

- I.A. PWS Information* - If nothing has changed since you completed your standard monitoring plan form, copy information from your plan into this section. If your system characteristics have changed, see Section 5.1.3 of this manual for guidance on completing this section.
- I.B. Date Submitted* - Enter either the date that you are submitting the form electronically, putting it in the mailbox, or dropping it off with an express delivery service. Be sure to submit your IDSE report before the deadline found on your requirements summary sheet.
- I.C. PWS Operations - This section asks questions about your system to help inform EPA and state personnel during the plan review process. If nothing has changed since you completed your standard monitoring plan form, copy information from your plan into this section. If your system characteristics have changed, see Section 5.1.3 of this manual for guidance on completing this section.
- I.D. Contact Person* - Enter the contact information of the person who is submitting the report. This should be the person who will be available to answer questions from EPA and/or state reviewers.

II. Stage 2 DBPR Requirements*

- II.A. Number of Compliance Monitoring Sites - If you serve fewer than 10,000 people, you need one highest TTHM and one highest HAA5 site.
- II.B. Schedule - This should be the same schedule you entered for your standard monitoring plan.
- II.C. Compliance Monitoring Frequency - If you are a subpart H system serving < 500 people or a ground water system serving <10,000 people, you must monitor once per year during the peak historical month. If you are a subpart H system that serves between 499 and 10,000 people, you must conduct Stage 2 compliance monitoring at 90 day intervals before and/or after the peak historical month.

III. Monitoring Results*

- III.A. Did you deviate in any way from your approved standard monitoring plan? - Put a check mark in the appropriate box to identify whether your system collected any standard monitoring samples on different dates or at different locations than indicated in your approved standard monitoring plan.

If you sampled on a different date or during a different week than scheduled in the approved monitoring plan, you should write an explanation in the space provided (or in attached sheets). You should include the standard monitoring site ID, the scheduled sampling date or week from your monitoring plan, and the actual

sampling date. You must also explain why you sampled on a different day or week than planned. An example explanation is shown below.

According to our standard monitoring plan, we were to collect samples at standard monitoring sites 2 and 4 on January 14, 2009. However, a major snowstorm created hazardous road conditions and limited our access to sample locations. Therefore, we conducted our sampling at all sites on January 18, 2009 after the roads were cleared.

III.B. Where were your TTHM and HAA5 samples analyzed? - Put a check mark in the appropriate box to identify whether your system analyzed TTHM and HAA5 samples in an in-house laboratory or sent the samples to a certified laboratory for analysis.

If you analyzed your TTHM and HAA5 samples in an in-house laboratory, check the appropriate box to identify whether your laboratory is certified. If you sent your TTHM and HAA5 samples to a certified laboratory, enter the name of the laboratory in the blank. If you used more than one laboratory (e.g., if you used different laboratories for standard monitoring samples and Stage 1 DBPR compliance samples), list both laboratories, or check “in-house” and list the name of the laboratory if applicable.

III.C What method was used to analyze your TTHM and HAA5 samples? Put a check mark in the appropriate box to indicate the analytical method used to measure the TTHM and HAA5 concentrations of your standard monitoring and Stage 1 DBPR compliance samples. If more than one method was used (e.g., if you used different laboratories for standard monitoring samples and Stage 1 DBPR compliance samples), check more than one method. If you do not know what method was used, contact your laboratory.

III.D. Standard Monitoring and Stage 1 Compliance Monitoring Results - TTHM - Enter your TTHM results for each standard monitoring site and each Stage 1 DBPR compliance monitoring site for each monitoring period in which you collected data (as laid out in your standard monitoring plan). For each sample result, enter the date on which sampling was conducted.

III.E. Standard Monitoring and Stage 1 Compliance Monitoring Results - HAA5 - Enter your HAA5 results for each standard monitoring site and each Stage 1 compliance monitoring site for each monitoring period in which you collected data (as laid out in your standard monitoring plan). For each sample result, enter the date on which sampling was conducted.

IV. **Justification of Stage 2 DBPR Compliance Monitoring Sites***

Enter the site ID from the distribution schematic and the site type (whether it is highest TTHM or highest HAA5). For example:

This site had the highest TTHM LRAA

An example of how you might justify a site that was **not** selected using the protocol is below:

Among the three remaining high TTHM sites, standard monitoring Site 1 has the highest TTHM LRAA. However, Stage 1 DBPR Site 2 has only a slightly lower TTHM LRAA than standard monitoring Site 1. Therefore, we choose Stage 1 DBPR Site 2 over standard monitoring Site 1 to maintain the historical DBP record.

V. Peak Historical Month and Stage 2 DBPR Compliance Monitoring Dates

- V.A. Peak Historical Month* - Enter the month that you determined to be your peak historical month.
- V.B. Is Your Peak Historical Month the Same as in Your IDSE Standard Monitoring Plan? - Put a check mark in the appropriate box to identify whether your system used the same peak historical month as in your standard monitoring plan. If your standard monitoring results prompted you to change your peak historical month, explain how you selected a new peak historical month.
- V.C. Proposed Stage 2 DBPR Compliance Monitoring Schedule* - Enter the ID for each Stage 2 DBPR compliance monitoring site in the table (these should match the ID's you enter in Section IV and on your schematic). Enter your proposed sampling schedule for the number of monitoring periods identified in Section II.C. The entry can be a specific date or week and can be in a number of different formats. For example:
- - 2nd week in Nov
 - 2nd Tuesday of Nov

Remember that at least one monitoring period must be during the peak historical month identified in Section V.A.

VI. Distribution System Schematic* - A distribution system schematic is required *only if it has changed from your approved IDSE standard monitoring plan*. If it has changed, attach the revised distribution system schematic.

VII. Attachments - Put a check mark in each of the boxes corresponding to any attachments that you have included in your report.

A distribution system schematic is required *only if it has changed since you submitted your IDSE standard monitoring plan*. Refer to Section VI for details.

If you submit your IDSE report electronically, you also have the option to submit attachments in hard copy. Include a note in your electronic IDSE report explaining that attachments are being submitted in hard copy, and mail the hard copy to EPA Region 10 if you are a schedule 1 or 2 water system or to your state if you are a schedule 3 or 4 water system.

If you are a subpart H system serving >3,300 people, you must submit a copy of your Stage 2 compliance monitoring plan to the state. If you include **compliance calculation procedures** in your IDSE report, the report can meet the requirement of the plan, and you do not have to prepare or submit a separate plan. As a guide for specifying your compliance calculation procedures, refer to the Stage 1 DBPR, 141.133(b), and your Stage 1 compliance monitoring plan. Check with your state, as they may have different requirements under the Stage 2 DBPR.

Enter the total number of pages in your IDSE report (including attachments) in the blank at the bottom of this section. This will allow EPA or your state to ensure that all pages were received.

This page intentionally left blank.

IDSE Report for Standard Monitoring for Systems Serving < 10,000

I. GENERAL INFORMATION

A. PWS Information*

B. Date Submitted* _____

PWSID: _____

PWS Name: _____

PWS Address: _____

City: _____ State: _____ Zip: _____

Population Served _____

System Type:	Source Water Type:	Buying / Selling Relationships:
<input type="checkbox"/> CWS	<input type="checkbox"/> Subpart H	<input type="checkbox"/> Consecutive System
<input type="checkbox"/> NTNCWS	<input type="checkbox"/> Ground	<input type="checkbox"/> Wholesale System
		<input type="checkbox"/> Neither

C. PWS Operations

Residual Disinfectant Type: Chlorine Chloramines Other: _____

Number of Disinfected Sources: ___ Surface ___ GWUDI ___ Ground ___ Purchased

D. Contact Person*

Name: _____

Title: _____

Phone #: _____ Fax #: _____

E-mail: _____

II. STAGE 2 DBPR REQUIREMENTS*

A. Number of Compliance Monitoring Sites

B. Schedule

C. Compliance Monitoring Frequency

Highest TTHM: 1

Highest HAA5: 1

Total: 2

Schedule 1

Schedule 2

Schedule 3

Schedule 4

During peak historical month (1 monitoring period)

Every 90 days (4 monitoring periods)

III. MONITORING RESULTS*

A. Did you deviate in any way from your approved standard monitoring plan? Yes No

If YES, explain (attach additional pages if necessary):

B. Where were your TTHM and HAA5 samples analyzed?

In-House

Is your in-house laboratory certified? Yes No

Certified Laboratory

Name of certified laboratory: _____

C. What method(s) was used to analyze your TTHM and HAA5 samples?

- | TTHM | HAA5 |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> EPA 502.2 | <input type="checkbox"/> EPA 552.1 |
| <input type="checkbox"/> EPA 524.2 | <input type="checkbox"/> EPA 552.2 |
| <input type="checkbox"/> EPA 551.1 | <input type="checkbox"/> EPA 552.3 |
| | <input type="checkbox"/> SM 6251 B |

IDSE Report for Standard Monitoring for Systems Serving < 10,000

III. MONITORING RESULTS (Continued)*

D. Standard Monitoring and Stage 1 Compliance Monitoring Results - TTHM

Site ID ¹	Data Type	TTHM (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

¹ Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed.

III. MONITORING RESULTS (Continued)*

E. Standard Monitoring and Stage 1 Compliance Monitoring Results - HAA5

Site ID ¹	Data Type	HAA5 (mg/L)				LRAA
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					
	Sample Date					
	Sample Result					

¹ Verify that site IDs for IDSE standard monitoring sites match the site IDs in your Standard Monitoring Plan.

Attach additional sheets as needed.

IV. JUSTIFICATION OF STAGE 2 DBPR COMPLIANCE MONITORING SITES*

Stage 2 Compliance Monitoring Site ID	Site Type	Justification
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5	
	<input type="checkbox"/> Highest TTHM <input type="checkbox"/> Highest HAA5	

V. PEAK HISTORICAL MONTH AND PROPOSED STAGE 2 COMPLIANCE MONITORING SCHEDULE

A. Peak Historical Month* _____

B. Is Your Peak Historical Month the Same as in Your Standard Monitoring Plan?

Yes No

If no, explain how you selected your new peak historical month (attach additional sheets if needed):

C. Proposed Stage 2 DBPR Compliance Monitoring Schedule*

Stage 2 Compliance Monitoring Site ID	Projected Sampling Date (date or week) ¹			
	Period 1	Period 2	Period 3	Period 4

¹ period = monitoring period. Complete for the number of monitoring periods from Section II.C.

VI. DISTRIBUTION SYSTEM SCHEMATIC*

ATTACH a schematic of your distribution system if it has changed since you submitted your Standard Monitoring Plan.

VII. ATTACHMENTS

- Additional sheets for explaining how and why you deviated from your standard monitoring plan (Section III).
- Additional sheets for Standard Monitoring and Stage 1 DBPR monitoring results (Section III).
- Additional sheets for explaining how you selected the peak historical month (Section V).
- Distribution system schematic* (Section VI). **REQUIRED if it has changed from your approved IDSE standard monitoring plan.**
- Compliance calculation procedures (for Stage 2 Compliance Monitoring Plan)

Total Number of Pages in Your Report: _____

Note: Fields with an asterisk (*) are required by the Stage 2 DBPR