



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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**Stage 2 Disinfectants and Disinfection Byproducts Rule
(Stage 2 DBPR)**

State of Wyoming and Region 8 Tribal Lands

Operational Evaluation Report (Rev 3)

For

SURFACE WATER DRINKING WATER SYSTEMS

A. ADMINISTRATIVE				
PWS No.		Prepared Date		
PWS Name		Prepared By		
		Title		
B. OPERATION EVALUATION LEVEL (OEL)				
This report is submitted for the following monitoring period.				
Check One:	<input type="checkbox"/> 1 st Quarter	<input type="checkbox"/> 2 nd Quarter	<input type="checkbox"/> 3 rd Quarter	<input type="checkbox"/> 4 th Quarter
Year				
Is the Total Trihalomethanes (TTHM) OEL Exceeded 0.080 mg/L (or 80 ug/L)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
• If yes, what was the last sample collection date?				
• If yes, what was the TTHM present in the sample result?		Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
• If yes, what was the amount of chloroform present in the sample result?		Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
Is the Haloacetic Acids (HAA5s) OEL Exceeded 0.060 mg/L (or 60 ug/L)?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
• If yes, what was the last sample collection date?				
• If yes, what was the HAA5 sample result for the current quarter		Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
• If yes, what was the amount of monobromoacetic acid present in the sample result?		Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
• If yes, what was the amount of dibromoacetic acid present in the sample result?		Level		<input type="checkbox"/> mg/L <input type="checkbox"/> ug/L
C. HISTORY				
1. In the previous quarter, was the OEL exceeded?				<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, did your system submit an Operation Evaluation Report (OER)?				<input type="checkbox"/> Yes <input type="checkbox"/> No
• If your system did submit an OER in the previous quarter, please skip to Section H.				

2. In past years, do your TTHMs normally exceed 0.080 mg/L during the quarter indicated in Section B, reduce in the next quarter, and maintain the calculated locational running annual average (LRAA) value below 0.080 mg/L?						<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	
<ul style="list-style-type: none"> If yes, please provide the following information from the past year's applicable quarters to demonstrate that TTHMs reduce from the current quarter to the next quarter. 							
Month 1		Year		TTHM Level		<input type="checkbox"/> mg/L	<input type="checkbox"/> ug/L
Month 2		Year		TTHM Level		<input type="checkbox"/> mg/L	<input type="checkbox"/> ug/L
<ul style="list-style-type: none"> Month 1 is the month of the sample collection date (from Section B) for the previous year. Month 2 is the following quarter during the previous year. If your data demonstrates a normal reduction of TTHMs to remain in compliance, then you may proceed directly to section H. 							
3. In past years, do your HAA5s normally exceed 0.060 mg/L during the quarter indicated in Section B, reduce in the next quarter, and maintain the calculated locational running annual average (LRAA) value below 0.060 mg/L?						<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	
<ul style="list-style-type: none"> If yes, please provide the following information from the past year's applicable quarters to demonstrate that HAA5s reduce from the current quarter to the next quarter. 							
Month 1		Year		HAA5 Level		<input type="checkbox"/> mg/L	<input type="checkbox"/> ug/L
Month 2		Year		HAA5 Level		<input type="checkbox"/> mg/L	<input type="checkbox"/> ug/L
<ul style="list-style-type: none"> Month 1 is the month of the sample collection date (from Section B) for the previous year. Month 2 is the following quarter during the previous year. If your data demonstrates a normal reduction of HAA5s to remain in compliance, then you may proceed directly to section H. 							
D. SOURCE WATER <input type="checkbox"/> If this submittal is an update from prior reports, skip to Section H.							
1. Have you changed the practices in getting your source water? e.g., changed intake rates or frequency, changed intake structure depth?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Have you changed/added sources?						<input type="checkbox"/> Yes <input type="checkbox"/> No	
3. Does your system have groundwater wells or sources as well? If yes, you may also want to fill out the OER for groundwater systems.						<input type="checkbox"/> Yes <input type="checkbox"/> No	
4. Have you seen visual changes in source water quality? e.g., turbidity, color, algae blooms, etc.						<input type="checkbox"/> Yes <input type="checkbox"/> No	
5. Have you seen changes in source water quality measurements? e.g., changes in turbidity, pH, temp, alkalinity, hardness, increased filter changes or number of backwash cycles required.						<input type="checkbox"/> Yes <input type="checkbox"/> No	
6. Have you seen changes in the watershed that may impact the source water? e.g., drought conditions, heavy rain, animal feed lots, agricultural practices, wildfires, industrial practices, etc.						<input type="checkbox"/> Yes <input type="checkbox"/> No	

7. If you answered “**YES**” to any of the questions above (Sections D.1-D.6), please explain:

8. Do you have **water temperature** data during the month of the OEL exceedance? ☐ Yes ☐ No

- If yes, what was the water temperature nearest to the DBP sample collection date above?

Date Measured

- If no, please measure the temperature in the source water.

Date Measured

9. Do you have raw water **pH** data during the month of the OEL exceedance? ☐ Yes ☐ No

- If yes, what was the pH value nearest to the DBP sample collection date above?

Date Measured

- If no, please measure the pH in the source water.

Date Measured

10. Do you have raw water **turbidity** data during the month of the OEL exceedance? ☐ Yes ☐ No

- If yes, what was the maximum turbidity nearest to the DBP sample collection date above?

Date Measured

- If no, please measure the turbidity in the source water.

Date Measured

11. Do you have raw water **Alkalinity** data during the month of the OEL exceedance? ☐ Yes ☐ No

- If yes, what was the alkalinity nearest to the DBP sample collection date above?

Date Measured

- If no, please measure the alkalinity in the source water.

Date Measured

12. Do you have raw water **Total Organic Carbon (TOC)** data during the month of the OEL exceedance? ☐ Yes ☐ No

- If yes, what was the TOC value nearest to the DBP sample collection date above?

Date Measured

- If no, please measure the TOC in the source water.

Date Measured

E. WATER TREATMENT ☐ If this submittal is an update from prior reports, **skip to Section H.**

1. Have you changed the amount or type of disinfectant?
e.g., chlorine to chloramines, changed disinfectant dosage, etc. ☐ Yes ☐ No

2. Have you changed or added locations of disinfectant points along the treatment process? ☐ Yes ☐ No

3. Other than disinfection, have you changed or made additions to any treatment processes? ☐ Yes ☐ No

4. Have you made changes to any other chemical applications?
e.g., change any chemicals (change coagulant type or filter aid), filter material, changes in application points, changing dosage of any chemical, etc. ☐ Yes ☐ No

5. If you answered “ YES ” to any of the questions above (Sections E.1-E.4), please explain:			
6. Do you have coagulant dosage data during the month of the OEL exceedance?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the coagulant dosage in the treatment process?		Date Measured	
• If no, please measure coagulant dosage.		Date Measured	
• What is the name of the coagulant product?			
7. Do you have polymer data during the month of the OEL exceedance, if applicable?			
• If yes, what was the coagulant dosage in the treatment process?		Date Measured	
• If no, please measure coagulant dosage.		Date Measured	
• What is the name of the polymer product?			
8. Do you have chlorine dosage data during the month of the OEL exceedance?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the average chlorine dosage nearest to the DBP sample collection date above?		Date Measured	
• If no, please measure the chlorine dosage.		Date Measured	
9. Does your system use chloramines (not free chlorine) for secondary disinfection?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the ammonium dosage nearest to the DBP sample collection date above?		Date Measured	
• If yes and you don't know the ammonium dosage, please measure the ammonium dosage rate.		Date Measured	
10. Do you have chlorine residual data at the point of entry (POE) during the month of the OEL exceedance?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the POE chlorine residual to the DBP sample collection date above?		Date Measured	
• If no, please measure the POE chlorine residual.		Date Measured	
11. Does your system use chloramines for secondary disinfection?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the POE chlorine residual nearest to the DBP sample collection date above?		Date Measured	
• If no, please measure the POE chlorine residual.		Date Measured	

12. Do you have finished water Total Organic Carbon (TOC) data during the month of the OEL exceedance?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the TOC during or closest to the DBP sample collection date above?		Date Measured	
• If no, please measure the finished water TOC.		Date Measured	
F. DISTRIBUTION SYSTEM <input type="checkbox"/> If this submittal is an update from prior reports, skip to Section H.			
1. Have you added additional service areas (industry or residential)? e.g., adding additional pipes or annexing additional areas of service which could change residence times			<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Have you experienced significant increases or decreases in water demand? e.g., drought restrictions, industry opening/closing, population change			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what is the primary suspected cause of water demand changes?			
3. Does your system have storage tanks in the distribution system?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, how many water storage tanks does your system have?			
• Do any storage tank(s) fill and drain from one pipe into the storage tank?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• Do any above ground metal storage tanks have condensation differences along the outer wall between upper and lower portions of the storage tank in the morning? <i>Note: This could indicate inadequate water turnover in the tank.</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Date Inspected	
• Do you have tank management/operational procedures? e.g., cleaning schedule, set operational levels of your tank (high and low), etc?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• Has the residence time of your tank(s) increased or decreased? e.g, are tanks being filled/drained more or less often?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• What is the longest approximate average residence time in the storage tanks?		<input type="checkbox"/> Hours <input type="checkbox"/> Days	
4. Does your system have a regular distribution flushing program?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the last date that flushing operations were performed?			
• If yes, have you been changing your distribution flushing procedures?			<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Do you have the chlorine residual measured at the disinfection byproduct (DBP) sample location?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the chlorine residual during or closest to the DBP sample collection date above?		Date Measured	
• If no, please measure the chlorine residual at the DBP sample location.		Date Measured	
6. Do you have the water temperature measured at the disinfection byproduct (DBP) sample location?			<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, what was the water temperature during or closest to the DBP sample collection date above?		Date Measured	
• If no, please measure the water temperature at the DBP sample location.		Date Measured	

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7. Do you have the pH measured at the disinfection byproduct (DBP) sample location?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, what was the pH during or closest to the DBP sample collection date above?			Date Measured		
• If no, please measure the pH at the DBP sample location.			Date Measured		
8. Does your system provide additional chlorine (e.g. booster chlorination) in the distribution system?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, what is the chlorine residual at the nearest location before additional chlorine is added?			mg/L	Date Measured	
• If yes, what is the chlorine residual at the nearest location after additional chlorine is added?			mg/L	Date Measured	
9. Did you have customer complaints about water quality during the OEL exceedance month?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, what was the general nature about water quality compliant?					
G. CONTROL PLAN <input type="checkbox"/> If this submittal is an update from prior reports, skip to Section H.					
1. In terms of your source water management, do you plan to monitor or implement best management practices in your source water?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• Does your system have a source water management plan?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• Does your system implement any best management practices (BMPs) in your watershed?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• Does your system monitor for any water quality parameters in the source water?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. In regarding your existing equipment and infrastructure, do you plan to make operational adjustments to improve the quality of your drinking water for DBP control?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to adjust your chemical feeds?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to change any chemical products?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to start up any existing process equipment not used during the sampling period indicated in Section A?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to adjust any existing powdered activated carbon (PAC) feed rates?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to adjust your chlorine dosage?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to adjust any existing aeration processes in your drinking water treatment plant?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to make changes to your flushing program?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to increase your monitoring of chlorine residuals in the distribution system?				<input type="checkbox"/> Yes <input type="checkbox"/> No	
• If yes, are you planning to make other changes to your operations?				<input type="checkbox"/> Yes <input type="checkbox"/> No	

- If you are planning other operational changes, please describe:

3. In regard to upgrades for your equipment or infrastructure, do you plan to make any capital improvements to your system to improve water quality for DBP control?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to replace or install new feed pumps?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to add new chemicals to your system?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to add aeration to any of your storage tanks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to install a new treatment process to address DBPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to switch your disinfectant?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to add new water mains to reduce dead-ends?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning to install aeration equipment to any of your storage tanks?	<input type="checkbox"/> Yes <input type="checkbox"/> No
• If yes, are you planning other upgrades to your public water system?	<input type="checkbox"/> Yes <input type="checkbox"/> No

4. Please provide a short statement about the control plan that your system will implement to reduce disinfection byproducts (DBPs):

H. CONTROL PLAN UPDATES

Only fill out this section, if you filled out an operational evaluation report (OER) in the previous quarter, or the data provided from Sections C.2 and C.3 instructed you to complete this section.

1. Does your plan only rely on natural decreasing water temperatures to bring your locational running annual average (LRAA) calculated value within compliance?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Are you continuing with the exact same control plan in your previous report?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> If yes, please provide an update on the status of accomplishing the items identified in the previous control plan: 	
3. Are you planning to use other methods not identified in your previous report to lower your disinfection byproducts (DBPs) ?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> If yes, are these new methods going to be implemented in the source watershed? (If yes, go back to Section D Source Water above) 	<input type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> If yes, are these new methods going to be implemented in the water treatment process? (If yes, go back to fill out Section E Water Treatment above) 	<input type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> If yes, are these new methods going to be implemented in the distribution system or the water storage tanks? (If yes, go back to fill out Section F Distribution System above) 	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Please provide a short-written statement about the control plan updates and status that your system is planning or implementing to reduce disinfection byproducts (DBPs):	

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I certify that the information in this entire report, including any attachments, is true and accurate to the best of my knowledge.

Signature: _____ Date: _____

Printed Name: _____ License #: _____

Contact Email address: _____ Contact Phone Number: _____

Send the completed report to EPA Region 8 no later than 90 days after being notified of the analytical results that caused you to exceed the operational evaluation level using one of the following:

Mail: Stage 2 DBPR Rule Manager
 Mail Code: 8WD-SDR
 US EPA Region 8
 1595 Wynkoop Street
 Denver, CO 80202-1129

Fax: 1-(303) 312-7517 Attn: Stage 2 DBPR Rule Manager

Email: R8DWU@epa.gov with PWS ID Number and "DBP2 OER" in the subject line.