



MINNESOTA DEPARTMENT OF HEALTH

MONTHLY TURBIDITY AND DISINFECTION REPORT

Surface Water Treatment Plant Using Membrane Filtration Technology

PWSID#	Facility Name	Phone #
Month/Year	Entry Point Location	Contact

DISINFECTANT RESIDUAL

Date	Minimum D.R. @ Entry Point (mg/l)*	Duration of low level*	Date reported to MDH**
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

DISINFECTANT RESIDUAL ON DISTRIBUTION

A. Number of sites where D.R. was measured	
B. Number of sites where a D.R. was detected	
C. Percent detection = $B/A * 100$ (Must be at least \geq 95% for compliance)	

TURBIDITY OF COMBINED FILTRATE

A. Total number of turbidity measurements	
B. Total number of turbidity measurements ≤ 0.08 NTU (When monitoring continuously, one 4-hour period equals 1 sample)	
C. The percentage of turbidity samples ≤ 0.08 NTU = $B/A * 100$ (Must be greater than 95% for compliance)	
D. Date(s) and value(s) on which the turbidity was at any time > 0.1 NTU:	

INDIVIDUAL MEMBRANE UNIT MONITORING REPORT

Answer questions A through E	Yes	No
A. Turbidity of each unit monitored?		
B. Were turbidity results recorded every 15 minutes? If no, was grab sampling performed every 4 hrs?		
C. Threshold turbidity [⊥] exceeded? If yes, complete the excursion report on the back.		
D. Was a Membrane Integrity Test (MIT) performed on each unit each calendar day of operation? If no, attach a report on why MIT was not performed.		
E. Did any integrity test results fall below the MDH certified LRV value for Cryptosporidium removal? If yes, complete the excursion report on the back.		

[⊥] a. Turbidity in a single 15-minute measurement > 0.1 NTU
 b. Greater than 5% of daily 15-minute measurements > 0.08 NTU

* Enter the minimum Chlorine/Disinfectant Residual (D.R.) your system had for the given date at the entry point to the distribution.
 ** If a low level (less than 0.2 mg/l) D.R. is measured, enter the duration that the low level was detected for (hours), and the date the incident was reported to the Minnesota Department of Health.

I certify that the above information is correct and that the water treatment plant was operated in accordance with the provisions of the Surface Water Treatment Rules and operational parameters established by the Minnesota Department of Health.

Prepared by _____ Date _____
 (Signature)

Reviewed by _____ Date _____

Monthly Report to the Minnesota Department of Health for Individual Membrane Unit (IMU) Monitoring

This report is required for a PWS that utilizes a Membrane Filtration Technology. These PWSs must record the turbidity from each individual membrane train/unit at least every 15 minutes. (Grab sampling every 4 hours is allowed if the continuous turbidimeter fails but for no more than 5 working days.) A direct Membrane Integrity Testing (MIT) must be performed on each membrane unit on each calendar day in which the unit is in operation. A PWS must also report any incidents when MIT resulted in a Log Removal Value (LRV) less than the value certified by the MDH for Cryptosporidium removal, for the particular membrane filtration system. Report within 10 days of the next month.

System/Treatment Plant: _____ PWSID # _____

Prepared By: _____ Date: _____

Year Month	List all units* that exceeded turbidity levels of 0.1 NTU in a single 15-minute measurement	If 0.1 NTU was exceeded, was the unit shutdown and direct integrity test performed?*	List all units* that had greater than 5% of recorded turbidity values > 0.08 NTU	If greater than 5% of recorded values > 0.08 NTU, was cause investigated and addressed within 7 days?*	List all units* with a LRV < MDH certified value for Cryptosporidium removal	If LRV < MDH certified value for Cryptosporidium removal, was the unit shut down?*
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

* For each unit that exceeded threshold turbidity limit(s) or had a LRV < MDH certified value for Cryptosporidium removal, attach information identifying the date and time when incident(s) occurred.

** Submit a written explanation detailing the cause(s) for turbidity exceedance or MIT failure(s), investigations, and subsequent corrective actions.