

Instructions for BSDW – 103

Monthly Operating Report for Membrane Filtration

General Direct Integrity Testing Information

- Upper Control Limit (psi/min): Enter the Upper Control Limit (UCL) as designated in the Pilot Study or Plan. This will be the same number every month.
- Minimum Applied Pressure: Enter the Minimum Applied Pressure as designated in Pilot Study or Plan. This will be the same number every month.
- Test Duration: Enter the duration of pressure decay test in minutes.
- Log Removal Value Verified: Enter the minimum value that the test verifies for the membrane filtration system, also log removal value that was used to calculate the Upper Control Limit. This will be the same number every month.

Section A: Daily Direct Integrity Test Results

- Applied Initial Pressure: Enter the initial test pressure for the direct integrity test.
- Final Pressure: Enter the final test pressure for the direct integrity test.
- ΔP_{test} (psi/min): Enter the rate of pressure decay during the integrity test.
- Within UCL?: Was the direct integrity test result within the UCL?
 - Note: If the ΔP_{test} exceeds the UCL, the system shall remove the membrane unit from service. Systems shall conduct a direct integrity test to verify any repairs, and may return the membrane unit to service only if the direct integrity test is within the established control limit.
 - Date/Time removed from service: Enter the date and time the membrane unit was removed from service.
 - Description of repair work: Describe the corrective action taken/repair work completed as a result of the UCL exceedance.
 - Applied Initial Pressure: Enter the initial test pressure for the direct integrity test following repair work.
 - Final Pressure: Enter the final test pressure for the direct integrity test following repair work.
 - ΔP_{test} (psi/min): Enter the rate of pressure decay during the direct integrity test.
 - Within UCL? : Was the direct integrity test result within the UCL?
 - Date/Time returned to service: Enter the date and time the membrane unit was returned to service following repair work and an acceptable direct integrity test result.

Section B: Turbidity Monitoring

- Was the membrane unit monitored separately and continuously (every 15 minutes) for the month? If no, explain.
- Was the continuous membrane monitoring or recording (every 15 minutes) offline during the month? If yes, indicate the date(s), duration and individual membrane grab sampling frequency on a separate sheet.
- Did the turbidity results from the membrane unit exceed 0.15 NTU in two consecutive measurements taken 15 minutes apart? If yes, complete the table located on the next page.
 - Date & Time: Enter the date and time that turbidity results from the membrane unit exceeded 0.15 NTU in two consecutive measurements taken 15 minutes apart.
 - Turbidity Measurements (NTU): Enter the turbidity results that exceeded 0.15 NTU in two consecutive measurements taken 15 minutes apart.
 - Date/Time removed from service: Enter the date and time the membrane unit was removed from service.
 - Membrane units must be immediately taken offline for direct integrity testing if turbidity results exceed 0.15 NTU in two consecutive measurements taken 15 minutes apart.

Section C: Diagnostic Direct Integrity Test Results

- Complete Section C only if a membrane unit was taken out of service after exceeding 0.15 NTU turbidity for two consecutive measurements 15 minutes apart.