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July 9, 2018
GO2-18-090
DIC 1316.26

Mr. Michael Wilson
Office of Drinking Water
Washington State Department of Health
16201 East Indiana Avenue, Suite 1500
Spokane Valley, Washington 99216

ELECTRONIC SUBMITTAL ONLY

Dear Mr. Wilson:

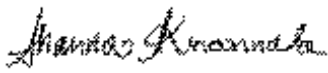


Subject: **COLUMBIA GENERATING STATION
POTABLE WATER DATA**

Reference: WDOH Water Supply System No. 920240

The information enclosed provides potable water data for Columbia Generating Station for June 2018. If you have any questions concerning this information, please contact Kip Whitehead at (509) 377-8794.

Respectfully,

09/07/18 12:03:39 -07:00

X  
Khounnala, Shannon E., Environme... 

Shannon E. Khounnala
Environmental and Regulatory Programs Manager

SEK/nb

| INTERNAL DISTRIBUTION: | | FILE COPY | |
|------------------------|------|----------------|------|
| SEK/lb | | Columbia Files | 964Y |
| WK Whitehead | PE03 | Docket File | PE20 |
| JL Cowin | PE12 | | |



**Supplemental Reporting - Individual Filter Turbidity
for Conventional, Direct, or In-line Filters**

| | | |
|--|------------------------|--|
| System I.D. #: 920240 | Treatment Plant #: CGS | Reporting Period Month/Year: June 2018 |
| System Name: Columbia Generating Station | | County: Benton |

Did you monitor the effluent turbidity of each individual filter on a continuous basis? Yes No

Check the appropriate box below for any turbidity exceedances that occurred, provide specific filter information, and attach a description of follow-up status. Use multiple forms if more than one filter had an exceedance.

Did the filtered water turbidity in any individual filter exceed:

| | | |
|-----|--|--|
| (1) | 1.0 NTU in 2 consecutive measurements taken 15 minutes apart? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| (2) | 0.5 NTU in 2 consecutive measurements at the end of 4 hours of operation after backwashing or taking off-line (for systems serving 10,000 persons or more)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A |
| (3) | 1.0 NTU in 2 consecutive measurements (15 minutes apart) for 3 consecutive months? - <i>Failure #1 above happening in the same filter in 3 consecutive months</i> | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| (4) | 2.0 NTU in 2 consecutive measurements for 2 consecutive months? (<i>in the same individual filter</i>) | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

| Filter Number | Turbidity Measurement(s) | Date(s) | Attach Description of Follow-up Status |
|---------------|--------------------------|---------|--|
|---------------|--------------------------|---------|--|

Required Follow-up action for exceedance cases listed above:

| | |
|---|--|
| First for All Cases (1-4 above): Record Filter Number, Turbidity Measurement (s), Date(s), Then: | |
| Case (1) for systems serving less than 10,000 persons. Required follow-up action: | •Report the cause (if known) for the exceedance to the Department by the 10th of the following month. |
| Cases (1) and (2) for systems serving 10,000 or more persons. Required follow-up actions: | •Do Either of the Following Within 7 Days: <ul style="list-style-type: none"> ○ Produce a Filter Profile and Report when Completed, or ○ Report the Obvious Reason for the Exceedance |
| Case (3) for all systems. Required follow-up actions: | •Conduct a Self-Assessment of Filter Within 14 Days Consisting of: <ul style="list-style-type: none"> ○ Assessment of Filter Performance ○ Development of Filter Profile ○ Identification/Prioritization of Factors Limiting Performance ○ Assessment of Applicability of Corrections ○ Preparation of Report •Notify Department When Self-Assessment is Completed |
| Case (4) for all systems. Required follow-up actions: | •Conduct Comprehensive Performance Evaluation (CPE) <ul style="list-style-type: none"> ○ Make Arrangements Within 60 Days (<10,000) or 30 Days (≥ 10,000) ○ Complete CPE; Submit Within 120 Days (<10,000) or 90 Days (≥ 10,000) |

| | |
|---|----------------------------------|
| Signature: | WTPO #: 12596 |
| Report Submitted by (Print): Jennifer Cowin | Telephone Number: (509) 377-2132 |



Water Treatment Plant Monthly Report

Month: June Year: 2018

Water Treatment Plant Monthly Report

Month: June Year: 2018

PWS ID: 92024.0
Source ID: S02

PWS Name: Columbia Generating Station
Source Name: Columbia River

PWS ID: 92024.0
Source ID: S02

County: Benton
Plant ID: CGS

PWS Name: Columbia Generating Station
Source Name: Columbia River

County: Benton
Plant ID: CGS

Cells and Columns with Blue Headings are intended for data provided by user

Table with columns: Date, Water Treated, Total Hours of Operation, Filter Backwash, Chlorine, Alum, Polymer, Filter Aid, Soda Ash, Ozone, PAX ML-19, Turbidity NTU (Raw, Settled, 1st, 2nd, 3rd, 4th, 5th, 6th, Avg), No of Samples > 0.3 NTU, Max CFE Turbidity, % NTU Reduction, Temp C (Raw, Final), pH (Raw, Final), Total Alkalinity mg/L as CaCO3 (Raw, Fin), Calcium Hardness mg/L as CaCO3 Fin, Remarks.

Total number of CFE samples analyzed for month: N = 87
Satisfactory turbidity performance is 95% or greater. Performance determination: 1-(E/N)x100 = 100.0%

87

100.0%

Total number of CFE samples exceeding 0.3 NTU: E = 0

0

Report Submitted By: Jennifer Cowin

Signature: [Handwritten Signature]

Number of times CFE exceeded 1.0 NTU this month: 0

0

Y/N:

N

See Cover Page for information on where to send this form.

NOTE 1: Percent turbidity reduction for each day of operation: PTR = ((Raw NTU - Avg CFE NTU) / (Raw NTU - Avg CFE NTU)) * 100 / (Raw NTU - Avg CFE NTU)
NOTE 2: pd = plant down, system not making water. Turbidity reported at four hour intervals only when system is making water.



Washington State Department of Health
SWTR Disinfection Monthly Report Form

PWS ID: 92024 0
County: Benton
Source ID: SO2
Plant ID: CGS
Population Served: 1,402
Overall Log Treatment Req'd: 3.0

PWS Name: Columbia Generating Station
Source Name: Columbia River
Min Grab Samples Req'd: 2
Residuals Normally Measured Continuously Y/N: Y
Filtration Log Removal Credit: 2.0

Month: June
Year: 2018
Submitted By: Jennifer Cowin
WTPPO Cert No: 12596
509-377-2132
Required Disinfection Log Reduction: 1.0

Cells and Columns with Blue Headings are intended for data provided by user

Inactivation Ratio Determination

Note: For correct results, remember to enter your plant's Filtration Log Removal Credit in cell 19 above

| Date | Peak Hour Flow gpm | Water Temp C | pH | Chlorine Residual (C) mg/L | Contact Time (T) minutes | Calculated CT (C*T) | Required CT from Tables | Inact Ratio (Calc CT/Req'd CT) | No. of Samples Collected - C- if Continuous | Disinfectant Residual at Distribution Entry Point | | Residual in Distribution System | | |
|--------------|--------------------|--------------|-----|----------------------------|--------------------------|---------------------|-------------------------|--------------------------------|---|---|----------------------------------|---------------------------------|---------------------|-------------------------------------|
| | | | | | | | | | | Lowest Daily Residual mg/L | Duration less than 0.2mg/L hours | DOH Notified? Name & Time | No of Sites Sampled | No of Samples Residual Not Detected |
| 1 | 183 | 17.0 | 7.9 | 1.2 | 75 | 87 | 33 | 2.64 | C | 1.2 | 1.2 | | 1 | 0 |
| 2 | 177 | 18.1 | 7.9 | 1.3 | 77 | 101 | 31 | 3.25 | C | 1.2 | 1.2 | | 1 | 0 |
| 3 | 138 | 18.5 | 7.9 | 1.3 | 99 | 132 | 32 | 4.14 | C | 1.2 | 1.2 | | 1 | 0 |
| 4 | 248 | 18.1 | 7.9 | 1.3 | 55 | 70 | 32 | 2.18 | C | 1.2 | 1.2 | | 1 | 0 |
| 5 | 179 | 17.7 | 7.8 | 1.3 | 76 | 101 | 32 | 3.16 | C | 1.3 | 1.3 | | 2 | 0 |
| 6 | 163 | 18.6 | 7.9 | 1.3 | 84 | 110 | 31 | 3.54 | C | 1.3 | 1.3 | | 1 | 0 |
| 7 | 182 | 18.4 | 7.9 | 1.3 | 75 | 99 | 32 | 3.09 | C | 1.3 | 1.3 | | 1 | 0 |
| 8 | 181 | 19.8 | 7.8 | 1.3 | 75 | 100 | 29 | 3.45 | C | 1.3 | 1.3 | | 1 | 0 |
| 9 | 136 | 20.1 | 8.0 | 1.3 | 101 | 132 | 28 | 4.71 | C | 1.3 | 1.3 | | 1 | 0 |
| 10 | 158 | 18.6 | 7.9 | 1.3 | 86 | 114 | 32 | 3.55 | C | 1.3 | 1.3 | | 1 | 0 |
| 11 | 131 | 18.7 | 7.9 | 1.3 | 104 | 137 | 31 | 4.41 | C | 1.3 | 1.3 | | 1 | 0 |
| 12 | 208 | 18.6 | 7.9 | 1.3 | 66 | 88 | 31 | 2.83 | C | 1.3 | 1.3 | | 1 | 0 |
| 13 | 167 | 20.4 | 7.9 | 1.3 | 82 | 109 | 28 | 3.89 | C | 1.3 | 1.3 | | 1 | 0 |
| 14 | 117 | 18.8 | 7.9 | 1.3 | 117 | 153 | 32 | 4.80 | C | 1.3 | 1.3 | | 1 | 0 |
| 15 | 201 | 19.0 | 8.0 | 1.3 | 68 | 89 | 32 | 2.79 | C | 1.3 | 1.3 | | 1 | 0 |
| 16 | 214 | 19.7 | 8.0 | 1.3 | 64 | 84 | 30 | 2.79 | C | 1.3 | 1.3 | | 1 | 0 |
| 17 | 172 | 19.7 | 8.0 | 1.3 | 79 | 105 | 31 | 3.37 | C | 1.3 | 1.3 | | 1 | 0 |
| 18 | 235 | 19.6 | 7.9 | 1.3 | 58 | 76 | 30 | 2.54 | C | 1.3 | 1.3 | | 1 | 0 |
| 19 | 188 | 20.8 | 7.9 | 1.3 | 73 | 95 | 28 | 3.40 | C | 1.3 | 1.3 | | 4 | 0 |
| 20 | 172 | 20.7 | 8.0 | 1.3 | 79 | 105 | 28 | 3.75 | C | 1.3 | 1.3 | | 1 | 0 |
| 21 | 199 | 20.9 | 8.0 | 1.3 | 69 | 92 | 28 | 3.28 | C | 1.3 | 1.3 | | 1 | 0 |
| 22 | 196 | 21.2 | 8.0 | 1.3 | 70 | 92 | 27 | 3.41 | C | 1.3 | 1.3 | | 1 | 0 |
| 23 | 226 | 21.7 | 7.9 | 1.3 | 60 | 79 | 25 | 3.16 | C | 1.3 | 1.3 | | 1 | 0 |
| 24 | 209 | 21.4 | 7.9 | 1.3 | 65 | 87 | 26 | 3.33 | C | 1.3 | 1.3 | | 1 | 0 |
| 25 | 222 | 21.0 | 7.9 | 1.3 | 62 | 81 | 28 | 2.91 | C | 1.3 | 1.3 | | 1 | 0 |
| 26 | 202 | 21.2 | 8.0 | 1.3 | 68 | 89 | 27 | 3.31 | C | 1.3 | 1.3 | | 1 | 0 |
| 27 | 254 | 21.5 | 7.9 | 1.3 | 54 | 71 | 25 | 2.84 | C | 1.3 | 1.3 | | 1 | 0 |
| 28 | 200 | 20.9 | 7.9 | 1.3 | 68 | 90 | 27 | 3.32 | C | 1.3 | 1.3 | | 1 | 0 |
| 29 | 200 | 21.3 | 8.0 | 1.3 | 68 | 90 | 26 | 3.45 | C | 1.3 | 1.3 | | 1 | 0 |
| 30 | 207 | 21.4 | 8.1 | 1.3 | 66 | 87 | 27 | 3.20 | C | 1.3 | 1.3 | | 1 | 0 |
| Total | | | | | | | | | 30 | # < 0.2 mg/L | # > 4 hrs | | 34 | 0 |
| Count | | | | | | | | | 0 | 0 | 0 | | 1 | 0 |
| Min | 117 | 17.0 | 7.8 | 1.2 | 54 | 70 | 25 | 2.18 | 0 | 1.2 | 0.0 | | 1 | 0 |
| Max | 254 | 21.7 | 8.1 | 1.3 | 117 | 153 | 33 | 4.80 | 0 | 1.3 | 0.0 | | 4 | 0 |
| Avg | 188.8 | 19.8 | 7.9 | 1.3 | 75 | 98 | 29 | 3.35 | | | | | | |

*Adjusted for Log Reduction Required

No. Days Inact Ratio < 1

DOH Form #331-048 (Excel version)

See Cover Page for Information on where to send this form.

Signature



**Surface Water Treatment Plant
Monthly Report Summary Form**

PWS ID
PWS Name

92024 0
Columbia Generating Station

Source ID

SO2

Source Name
Plant ID

CGS

Columbia River

Month

June

County

Benton

Year

2018

Color code for form information:

WTP Monthly Rept

SWTR Monthly Disinfection Rept

To be supplied by user

| | | | | | | | | |
|----------------------------------|--|-----------|---|--|--|-------------|--|---------|
| Source (Raw) Water | 7. Maximum density of raw water fecal coliform (# organisms/100 ml) | | | | | | | 2 |
| | 8. Number of days raw water turbidity was monitored this month | | | | | | | 29 |
| | 9. Average turbidity of the raw water treated by the plant (NTU) | | | | | | | 2.67 |
| | 10. Maximum turbidity of the raw water treated by the plant (NTU) | | | | | | | 5.04 |
| | 11. Number of raw water turbidity measurements taken | | | | | | | 87 |
| | 12. Hours of operation during reporting month | | | | | | | 284 |
| | 13. Number of filtered water turbidity measurements taken | | | | | | | 87 |
| | 14. Turbidity performance limit | 0.3 | No of filtered measurements > performance limit | | | | | 0 |
| | 15. Average filtered water turbidity (NTU) | | | | | | | 0.08 |
| | 16. Maximum filtered water turbidity (NTU) | | | | | | | 0.2 |
| | 17. Average of daily filtration effectiveness calculations (% turbidity reduction) | | | | | "X" if N/A: | | 96.5 |
| Filtration | 18. Was unfiltered water provided to consumers at any time? | | | | | | | N |
| | 19. Was coagulation in use at all times the plant was operating? | | | | | | | Y/N/NA: |
| | 20. Maximum filtration rate (gpm/sq. ft) | | | | | | | 4.5 |
| | 21. Number of days disinfectant CT was monitored this month | | | | | | | 30 |
| | 22. Number of days inactivation ratio was below 1.0 (Enter 0 if none) | | | | | | | 0 |
| | 23. Lowest inactivation ratio achieved | | | | | | | 2.18 |
| | 24. Number of days during which plant produced water during month | | | | | | | 29 |
| | 25. Number of entry point residual samples analyzed during month | | | | | | | 30 |
| | 26. No of days when residual fell below 0.2 mg/l (Enter 0 if none) | | | | | | | 0 |
| | 27. No of days when residual fell below 0.2 mg/l for more than 4 hours (Enter 0 if none) | | | | | | | 0 |
| Distribution Entry Point Samples | 28. Number of days water served to public this month | | | | | | | 30 |
| | 29. Number of days distribution system disinfectant residual was monitored | | | | | | | 30 |
| | 30. No of distribution system disinfectant residual samples measured this month | | | | | | | 34 |
| | 31. No of samples where no disinfectant residual was detected (Enter 0 if none) | | | | | | | 0 |
| | 32. Average of all disinfectant residual measurements taken with coliform samples | | | | | | | 1.0 |
| | 33. Max allowable turbidity | 1.0 | No of finished water turbidity measurem't > limit | | | | | 0 |
| | 34. Maximum flow rate treated (gpm) | | | | | | | 254 |
| | 35. Number of water quality complaints received from consumers served by system | | | | | | | 0 |
| | 36. Did certified operator take all req'd pH, temp, turbidity, and residual disinfectant conc? | | | | | | | Y/N: |
| | 37. Were all turbidimeters calibrated w/ primary standard within last quarter? Date | 5/24/2018 | | | | | | Y/N: |
| Finished Water/ General | | | | | | | | Y |

Report Submitted By

Jennifer Cowin

BTO/WTPO Cert No

12596

Signature

Telephone Number

509-377-2132

DOH Form #331-172 (Excel version)

See Cover Page for information on where to send this form.