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February 3, 2020
GO2-20-027
DIC 404.1

Ritchie Graves
Columbia Hydropower Branch
National Marine Fisheries Service
1201 NE Lloyd Blvd, Suite 1100
Portland, OR 97232

VIA E-MAIL AND US MAIL

Dear Mr. Graves:

Subject: 2019 BIOLOGICAL MONITORING REPORT

Reference: Letter, GI2-17-061, March 10, 2017, from Barry A. Thorn (National Marine Fisheries Service) to Jeffery J. Rikhoff (Division of License Renewal, Office of Nuclear Regulation) "Endangered Species Act Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Renewing the Operating License for the Columbia Generating Station, Washington, Condition 2.9.4(4)(a)."

Condition 2.9.4(4)(a) of the Endangered Species Act 7(a)(2) Biological Opinion requires the Energy Northwest to submit an annual summary of biological monitoring data and reports submitted pursuant to NPDES Permit WA002515-1. Attached is the 2019 Biological Monitoring Report.

If you have any questions regarding this report, I can be reached at (509) 377-8639.

Sincerely,

03/02/20 16:21:21 -08:00

X 

Khounnala, Shannon E., Environme... 

Shannon E. Khounnala
Environmental and Regulatory Programs Manager

SEK/nb

Attachments: 1. GO2-20-026 – 2019 Post Season Fish Collection Report – Attachment 1
2. GO2-20-026 – 2019 NPDES Permit DMRs – Attachment 2

cc: Brianna Grange, NRC, Briana.Grange@NRC.gov
NRC Document Control Desk
EndangeredSpecies.Resources@NRC.gov

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Energy Northwest

Columbia Generating Station

2019 Post Season Fish Collection Report

The purpose of this report is to document fish collection activities on the part of Energy Northwest (ENW) during the 2019 calendar year and to verify that the activities were in compliance with the Endangered Species Act section 7(a)(2) Biological Opinion for the Columbia Generating Station (NMFS No: NWR/2011/05286) issued March 10, 2017. Also included is a discussion on changes in CGS operations during the 2019 calendar year that had the potential to affect CGS effluent discharges to the Columbia River.

Fish Collection

Columbia Generating Station (CGS) is required to collect and analyze fish samples from locations near the CGS effluent discharge in the Columbia River and from a control location, typically the Snake River. The samples are analyzed for radioactive content with the purpose of determining what impact, if any, CGS operation may have on Columbia River fish. The requirements specify collection of one anadromous and two resident fish species from both locations. The fish collection activities are to be performed in accordance with the Endangered Species Act section 7(a)(2) Biological Opinion for the Columbia Generating Station.

Resident Species Collection

Columbia River

The two resident fish species collected from the Columbia River in 2019 were walleye and small mouth bass. Two walleye were obtained as a fisherman donation in August. Information provided by the fishermen indicated the fish were caught on 8/15/19 within vicinity of the green buoy marking the Columbia Generating Station (CGS) discharge location.

Energy Northwest (ENW) personnel collected one small mouth bass on 7/22/19 from shoreline near CGS and IDC pump house. GPS coordinates were recorded as 46.475822, -119.265936, water temperature at 19.0 degrees Celsius. The fish was caught using hook and line techniques that targeted bass. Two adult steelhead were caught and immediately released without further handling. Adipose fin missing from both fish. Fishing techniques used to collect the resident species were in accordance with the Washington Dept. of Fish and Wildlife (WDFW) freshwater fishing rules for the resident species of interest.

Snake River

The resident fish from the Snake River serve as controls and were obtained by ENW personnel and fisherman donation. One walleye obtained as a fisherman donation in July. Information provided by the fishermen indicated the fish was caught on 7/30/19 about ¼ mile below Ice Harbor Dam. ENW personnel collected three small mouth bass on 7/28/19

from a location between the Hood Park and Ice Harbor Dam, GPS coordinates were recorded as 46.240879, -118.954309.

Anadromous Species Collection

The anadromous specie collected from the Snake and Columbia Rivers was Chinook salmon. Authorization to obtain the fish from local hatcheries was provided by the State of Washington Dept. of Fish and Wildlife in a letter dated 10/9/19. The fish carcasses were obtained from both the Ringold and Lyons Ferry fish hatcheries on 10/22/19.

Fish Collection Summary

Reasonable and prudent measures were utilized to minimize the impact of biological monitoring activities during 2019. Fish collection was performed using hook and line techniques that targeted the species of interest; electroshock fishing was not performed. No capture or handling of Upper Columbia River (UCR) spring-run Chinook salmon or adult UCR steelhead occurred during the year.

Summary of Changes to CGS Aqueous Effluent Discharges

During the 2019 calendar year, the NPDES effluent monitoring as reported on the monthly discharge monitoring reports indicated that all parameters were within permit specifications with no issues or violations. Additionally, whole effluent toxicity testing performed on a quarterly basis showed no statistically significant difference in survival between the control and the acute critical effluent concentration (ACEC, 11% effluent).

In 2019 CGS modified its existing batch halogenation process of the Circulating Water (CW) and Plant Service Water (TSW) systems. CGS added equipment to continuously halogenate the CW and TSW systems. Dehalogenation equipment was also installed to remove residual halogenation agents prior to discharging the Station's effluent to the Columbia River. This modification was made to improve the process that inhibits biological fouling of the CW and TSW systems. CGS worked with the Energy Facility Site Evaluation Council (EFSEC) and the Washington Department of Ecology (WDOE) to amend NPDES permit WA002515-1 for this change in operation. The new continuous halogenation/dehalogenation system was start-up on November 6, 2019. Implementation of this new process has not resulted in any NPDES permit violations to date. CGS may continue to utilize the batch halogenation process on occasion.



INTEROFFICE MEMO

GO2-19-032

DIC: 1316.20

DATE: February 13, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
JANUARY 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES PERMIT No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for January 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

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SEK LB	
WK Whitehead	PE03
JT LePage	1025

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services
Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP
Approved by: Elisa Nguyen, Environmental Scientist, Environmental Services
Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 01/01/2019 - 01/31/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-T	1/1/19	2.7	8.2	8.3		22.6						
1-W	1/2/19	1.1	8.2	8.3	0	22.3					<0.1	<0.1
1-Th	1/3/19	2.3	8.3	8.4		24.5						
1-F	1/4/19	1.1	8.3	8.4	0	23.6					<0.1	<0.1
1-Sa	1/5/19	2.0	8.3	8.4		22.9						
2-Su	1/6/19	2.0	8.1	8.4		23.4						
2-M	1/7/19	0.6	8.1	8.2	0	22.6					<0.1	<0.1
2-T	1/8/19	2.6	8.1	8.2		23.2	6.3*	16*	<1*	21*		
2-W	1/9/19	0.8	8.2	8.4	0	21.4					<0.1	<0.1
2-Th	1/10/19	3.4	8.0	8.5		22.1						
2-F	1/11/19	1.7	8.0	8.4	0	22.2					<0.1	<0.1
2-Sa	1/12/19	2.6	8.1	8.3		22.1						
3-Su	1/13/19	2.6	8.2	8.2		20.6						
3-M	1/14/19	0.8	8.2	8.3	0	20.7					<0.1	<0.1
3-T	1/15/19	2.3	8.3	8.4		22.1						
3-W	1/16/19	0.8	8.3	8.5	0	22.0					<0.1	<0.1
3-Th	1/17/19	3.0	8.3	8.5		22.5						
3-F	1/18/19	1.4	8.3	8.4	0	22.9					<0.1	<0.1
3-Sa	1/19/19	2.6	8.1	8.3		23.2						
4-Su	1/20/19	2.6	8.2	8.2		22.9						
4-M	1/21/19	1.3	8.1	8.3	0	22.6					<0.1	<0.1
4-T	1/22/19	2.5	8.1	8.4		21.9						
4-W	1/23/19	0.7	8.2	8.3	0	20.3					<0.1	<0.1
4-Th	1/24/19	2.9	8.2	8.4		22.6						
4-F	1/25/19	2.5	8.3	8.4	0	22.1					<0.1	<0.1
4-Sa	1/26/19	3.7	8.3	8.4		21.1						
5-Su	1/27/19	2.5	8.3	8.4		21.2						
5-M	1/28/19	0.9	8.3	8.4	0	21.0					<0.1	<0.1
5-T	1/29/19	1.8	8.3	8.4		22.5						
5-W	1/30/19	0.7	8.3	8.4	0	21.4					<0.1	<0.1
5-Th	1/31/19	2.9	8.2	8.3		21.0						
Instantaneous Minimum			8.0									
			>= 6.5 (RO)									
Average Monthly		<= 5.6							< 1	21	<= 8.2	<= 53
Instantaneous Maximum				8.5								
				<= 9.0 (RO)								
Monthly Total				0								
				<= 446								

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-T	1/1/19		
1-W	1/2/19		
1-Th	1/3/19		
1-F	1/4/19		
1-Sa	1/5/19		
2-Su	1/6/19		
2-M	1/7/19		
2-T	1/8/19		
2-W	1/9/19		
2-Th	1/10/19		
2-F	1/11/19		
2-Sa	1/12/19		
3-Su	1/13/19		
3-M	1/14/19		
3-T	1/15/19		
3-W	1/16/19		
3-Th	1/17/19		
3-F	1/18/19		
3-Sa	1/19/19		
4-Su	1/20/19		
4-M	1/21/19		
4-T	1/22/19		
4-W	1/23/19		
4-Th	1/24/19		
4-F	1/25/19		
4-Sa	1/26/19		
5-Su	1/27/19		
5-M	1/28/19		
5-T	1/29/19		
5-W	1/30/19		
5-Th	1/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	1/8/2019	6.3	Results reported from a grab sample collected 1/8/2019
CWB	Copper Total Micrograms/L (ug/L)	1/8/2019	16	Results reported from a 24-hour composite sample collected 1/7/2019-1/8/2019
CWB	Chromium Total Micrograms/L (ug/L)	1/8/2019	B<1	Results reported from a 24-hour composite sample collected 1/7/2019-1/8/2019
CWB	Zinc Total Micrograms/L (ug/L)	1/8/2019	21	Results reported from a 24-hour composite sample collected 1/7/2019-1/8/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the SSW ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 01/01/2019 - 01/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-T	1/1/19	34681
1-W	1/2/19	34381
1-Th	1/3/19	48281
1-F	1/4/19	34481
1-Sa	1/5/19	48300
2-Su	1/6/19	34262
2-M	1/7/19	53181
2-T	1/8/19	37481
2-W	1/9/19	51381
2-Th	1/10/19	34481
2-F	1/11/19	21581
2-Sa	1/12/19	34504
3-Su	1/13/19	34454
3-M	1/14/19	34485
3-T	1/15/19	21581
3-W	1/16/19	47581
3-Th	1/17/19	34781
3-F	1/18/19	47181
3-Sa	1/19/19	34181
4-Su	1/20/19	34781
4-M	1/21/19	47081
4-T	1/22/19	37081
4-W	1/23/19	37481
4-Th	1/24/19	37781
4-F	1/25/19	21581
4-Sa	1/26/19	50781
5-Su	1/27/19	21581
5-M	1/28/19	47181
5-T	1/29/19	34081
5-W	1/30/19	60081
5-Th	1/31/19	21581
Monthly Total		1172311

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 01/01/2019 - 01/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-T	1/1/19	20.6
1-W	1/2/19	19.1
1-Th	1/3/19	22.2
1-F	1/4/19	21.8
1-Sa	1/5/19	20.8
2-Su	1/6/19	22.0
2-M	1/7/19	19.9
2-T	1/8/19	20.6
2-W	1/9/19	19.1
2-Th	1/10/19	21.6
2-F	1/11/19	20.2
2-Sa	1/12/19	18.0
3-Su	1/13/19	20.1
3-M	1/14/19	18.5
3-T	1/15/19	20.3
3-W	1/16/19	19.2
3-Th	1/17/19	21.7
3-F	1/18/19	21.1
3-Sa	1/19/19	21.8
4-Su	1/20/19	21.3
4-M	1/21/19	19.6
4-T	1/22/19	15.2
4-W	1/23/19	14.8
4-Th	1/24/19	18.9
4-F	1/25/19	22.3
4-Sa	1/26/19	21.9
5-Su	1/27/19	21.0
5-M	1/28/19	18.9
5-T	1/29/19	19.7
5-W	1/30/19	18.4
5-Th	1/31/19	21.0

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Shannon Khounnala

2/12/2019 3:58:10 PM

Signature

Date



INTEROFFICE MEMO

GO2-19-047

DIC: 1316.20

DATE: March 14, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
FEBRUARY 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES PERMIT No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for February 2019. It should be noted that the February sample for metals analysis was collected as a grab sample instead of a 24-hour composite because the connection for a composite sample was not available due to tag-out conditions for another project. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

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CGS Plant Files (DIC 1316.20)

Page 2 of 2

March 14, 2019

Columbia Generating Station

FEBRUARY 2019 NPDES DISCHARGE MONITORING REPORT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 02/01/2019 - 02/28/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-F	2/1/19	1.3	8.2	8.2	0	21.1					<0.1	<0.1
1-Sa	2/2/19	2.3	8.2	8.2		22.4						
2-Su	2/3/19	2.3	8.2	8.3		22.5						
2-M	2/4/19	0.8	8.2	8.3	0	22.6					<0.1	<0.1
2-T	2/5/19	1.6	8.3	8.3		24.5	9.7*	14*	1.3*	20*		
2-W	2/6/19	0.3	8.3	8.3	0	20.3					<0.1	<0.1
2-Th	2/7/19	3.0	8.2	8.3		24.7						
2-F	2/8/19	1.4	8.3	8.4	0	27.3					<0.1	<0.1
2-Sa	2/9/19	2.0	8.3	8.4		27.5						
3-Su	2/10/19	2.0	8.3	8.4		27.3						
3-M	2/11/19	2.0	8.3	8.4		26.3						
3-T	2/12/19	2.0	8.3	8.4		26.0						
3-W	2/13/19	0.7	8.3	8.4	0	25.5					<0.1	<0.1
3-Th	2/14/19	3.0	8.3	8.4		27.9						
3-F	2/15/19	1.2	8.3	8.4	0	25.9					<0.1	<0.1
3-Sa	2/16/19	2.7	8.3	8.4		24.8						
4-Su	2/17/19	2.7	8.0	8.4		24.8						
4-M	2/18/19	1.4	8.0	8.4	0	24.9					<0.1	<0.1
4-T	2/19/19	2.5	8.0	8.4		24.2						
4-W	2/20/19	1.2	8.0	8.4	0	26.3					<0.1	<0.1
4-Th	2/21/19	2.7	8.0	8.4		26.3						
4-F	2/22/19	1.2	8.0	8.4	0	25.6					<0.1	<0.1
4-Sa	2/23/19	2.0	8.1	8.4		26.3						
5-Su	2/24/19	2.0	8.0	8.4		25.7						
5-M	2/25/19	2.0	7.9	8.4		24.6						
5-T	2/26/19	2.0	8.0	8.4		24.0						
5-W	2/27/19	1.0	8.1	8.4	0	23.4					<0.1	<0.1
5-Th	2/28/19	2.3	8.1	8.4		24.8						
Instantaneous Minimum			7.9									
			>= 6.5 (RO)						1.3	20		
Average Monthly		<= 5.6							<= 8.2	<= 63		
Instantaneous Maximum												
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	2/5/2019	9.7	Results reported from a grab sample collected 2/5/2019



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-F	2/1/19		
1-Sa	2/2/19		
2-Su	2/3/19		
2-M	2/4/19		
2-T	2/5/19		
2-W	2/6/19		
2-Th	2/7/19		
2-F	2/8/19		
2-Sa	2/9/19		
3-Su	2/10/19		
3-M	2/11/19		
3-T	2/12/19		
3-W	2/13/19		
3-Th	2/14/19		
3-F	2/15/19		
3-Sa	2/16/19		
4-Su	2/17/19		
4-M	2/18/19		
4-T	2/19/19		
4-W	2/20/19		
4-Th	2/21/19		
4-F	2/22/19		
4-Sa	2/23/19		
5-Su	2/24/19		
5-M	2/25/19		
5-T	2/26/19		
5-W	2/27/19		
5-Th	2/28/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



CWB	Copper Total Micrograms/L (ug/L)	2/5/2019	14	Results reported from a grab sample collected 2/5/2019
CWB	Chromium Total Micrograms/L (ug/L)	2/5/2019	1.3	Results reported from a grab sample collected 2/5/2019
CWB	Zinc Total Micrograms/L (ug/L)	2/5/2019	20	Results reported from a grab sample collected 2/5/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the SSW ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 02/01/2019 - 02/28/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-F	2/1/19	52818
1-Sa	2/2/19	52753
2-Su	2/3/19	40755
2-M	2/4/19	58346
2-T	2/5/19	42818
2-W	2/6/19	55718
2-Th	2/7/19	60218
2-F	2/8/19	39618
2-Sa	2/9/19	40218
3-Su	2/10/19	39918
3-M	2/11/19	40318
3-T	2/12/19	40118
3-W	2/13/19	26918
3-Th	2/14/19	51218
3-F	2/15/19	39418
3-Sa	2/16/19	52386
4-Su	2/17/19	26918
4-M	2/18/19	52249
4-T	2/19/19	52118
4-W	2/20/19	26918
4-Th	2/21/19	51518
4-F	2/22/19	39518
4-Sa	2/23/19	39218
5-Su	2/24/19	39418
5-M	2/25/19	210218
5-T	2/26/19	64118
5-W	2/27/19	39118
5-Th	2/28/19	39818
Monthly Total		1414703

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 02/01/2019 - 02/28/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow
		Million Gallons/Day Continuous Metered/Recorded
1-F	2/1/19	19.3
1-Sa	2/2/19	20.7
2-Su	2/3/19	21.2
2-M	2/4/19	19.1
2-T	2/5/19	19.0
2-W	2/6/19	18.3
2-Th	2/7/19	19.8
2-F	2/8/19	19.1
2-Sa	2/9/19	20.3
3-Su	2/10/19	20.0
3-M	2/11/19	19.7
3-T	2/12/19	19.8
3-W	2/13/19	19.1
3-Th	2/14/19	21.8
3-F	2/15/19	19.6
3-Sa	2/16/19	20.9
4-Su	2/17/19	21.2
4-M	2/18/19	19.4
4-T	2/19/19	20.4
4-W	2/20/19	19.7
4-Th	2/21/19	21.2
4-F	2/22/19	19.4
4-Sa	2/23/19	20.1
5-Su	2/24/19	20.2
5-M	2/25/19	20.0
5-T	2/26/19	20.4
5-W	2/27/19	19.1
5-Th	2/28/19	20.0

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-071

DIC: 1316.20

DATE: April 11, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
MARCH 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES PERMIT No. WA002515, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for March 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

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WK Whitehead	PE03
JT LePage	1025

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 03/01/2019 - 03/31/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-F	3/1/19	0.3	8.2	8.3	0	23.3					<0.1	<0.1
1-Sa	3/2/19	1.0	8.0	8.4		24.2						
2-Su	3/3/19	1.9	7.8	8.4		26.7	1.8*	10*	<1*	18*		
2-M	3/4/19	1.2	7.7	8.4	0	28.5					<0.1	<0.1
2-T	3/5/19	2.4	7.7	8.4		27.9						
2-W	3/6/19	0.7	8.2	8.4	0	27.3					<0.1	<0.1
2-Th	3/7/19	2.2	7.9	8.4		28.0						
2-F	3/8/19	1.0	7.9	8.4	0	24.7					<0.1	<0.1
2-Sa	3/9/19	2.1	7.9	8.4		26.8						
3-Su	3/10/19	2.1	8.0	8.4		26.9						
3-M	3/11/19	2.1	7.9	8.4		26.9						
3-T	3/12/19	2.2	7.9	8.4		30.2						
3-W	3/13/19	1.3	8.0	8.4	0	27.0					<0.1	<0.1
3-Th	3/14/19	2.5	8.0	8.4		27.1						
3-F	3/15/19	1.2	8.0	8.4	0	25.7					<0.1	<0.1
3-Sa	3/16/19	2.4	8.1	8.4		24.8						
4-Su	3/17/19	2.4	8.0	8.4		25.7						
4-M	3/18/19	0.8	8.3	8.4	0	25.7					<0.1	<0.1
4-T	3/19/19	2.5	8.0	8.4		26.4						
4-W	3/20/19	0.8	8.3	8.4	0	26.4					<0.1	<0.1
4-Th	3/21/19	2.3	8.0	8.4		25.8						
4-F	3/22/19	1.2	8.0	8.4	0	25.7					<0.1	<0.1
4-Sa	3/23/19	2.2	8.0	8.4		25.1						
5-Su	3/24/19	2.3	8.0	8.4		25.2						
5-M	3/25/19	0.6	8.3	8.4	0	25.9					<0.1	<0.1
5-T	3/26/19	3.2	8.0	8.4		25.6						
5-W	3/27/19	1.0	8.3	8.4		24.8						
5-Th	3/28/19	3.9	8.0	8.4		25.3						
5-F	3/29/19	4.2	8.0	8.4		25.5						
5-Sa	3/30/19	4.3	7.9	8.4		25.1						
6-Su	3/31/19	4.2	8.0	8.4		25.5						
Instantaneous Minimum			7.7									
			>= 6.5 (RO)									
Average Monthly		<= 5.6							<1	18	<= 8.2	<= 53
Instantaneous Maximum				8.4								
				<= 9.0 (RO)								
Monthly Total				0								
				<= 446								

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-F	3/1/19		
1-Sa	3/2/19		
2-Su	3/3/19		
2-M	3/4/19		
2-T	3/5/19		
2-W	3/6/19		
2-Th	3/7/19		
2-F	3/8/19		
2-Sa	3/9/19		
3-Su	3/10/19		
3-M	3/11/19		
3-T	3/12/19		
3-W	3/13/19		
3-Th	3/14/19		
3-F	3/15/19		
3-Sa	3/16/19		
4-Su	3/17/19		
4-M	3/18/19		
4-T	3/19/19		
4-W	3/20/19		
4-Th	3/21/19		
4-F	3/22/19		
4-Sa	3/23/19		
5-Su	3/24/19		
5-M	3/25/19		
5-T	3/26/19		
5-W	3/27/19		
5-Th	3/28/19		
5-F	3/29/19		
5-Sa	3/30/19		
6-Su	3/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	3/3/2019	1.8	Results reported from a grab sample collected 3/3/2019
CWB	Copper Total Micrograms/L (ug/L)	3/3/2019	10	Results reported from a 24-hr composite sample collected 3/2/2019-3/3/2019
CWB	Chromium Total Micrograms/L (ug/L)	3/3/2019	B<1	Results reported from a 24-hr composite sample collected 3/2/2019-3/3/2019
CWB	Zinc Total Micrograms/L (ug/L)	3/3/2019	18	Results reported from a 24-hr composite sample collected 3/2/2019-3/3/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 03/01/2019 - 03/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-F	3/1/19	40037
1-Sa	3/2/19	40237
2-Su	3/3/19	39937
2-M	3/4/19	65837
2-T	3/5/19	53037
2-W	3/6/19	65737
2-Th	3/7/19	52137
2-F	3/8/19	27537
2-Sa	3/9/19	52537
3-Su	3/10/19	40137
3-M	3/11/19	34237
3-T	3/12/19	33537
3-W	3/13/19	27537
3-Th	3/14/19	27537
3-F	3/15/19	39937
3-Sa	3/16/19	27537
4-Su	3/17/19	59137
4-M	3/18/19	27537
4-T	3/19/19	40237
4-W	3/20/19	27537
4-Th	3/21/19	52637
4-F	3/22/19	27537
4-Sa	3/23/19	40561
5-Su	3/24/19	27537
5-M	3/25/19	27537
5-T	3/26/19	27537
5-W	3/27/19	27537
5-Th	3/28/19	70937
5-F	3/29/19	58837
5-Sa	3/30/19	28137
6-Su	3/31/19	43537
Monthly Total		1254271

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 03/01/2019 - 03/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-F	3/1/19	17.9
1-Sa	3/2/19	18.1
2-Su	3/3/19	20.7
2-M	3/4/19	18.7
2-T	3/5/19	19.9
2-W	3/6/19	18.8
2-Th	3/7/19	21.6
2-F	3/8/19	19.2
2-Sa	3/9/19	20.9
3-Su	3/10/19	20.7
3-M	3/11/19	20.7
3-T	3/12/19	21.2
3-W	3/13/19	21.6
3-Th	3/14/19	22.0
3-F	3/15/19	20.4
3-Sa	3/16/19	21.8
4-Su	3/17/19	22.1
4-M	3/18/19	20.6
4-T	3/19/19	23.2
4-W	3/20/19	22.1
4-Th	3/21/19	24.0
4-F	3/22/19	23.2
4-Sa	3/23/19	24.1
5-Su	3/24/19	23.5
5-M	3/25/19	20.7
5-T	3/26/19	21.1
5-W	3/27/19	21.1
5-Th	3/28/19	21.1
5-F	3/29/19	23.7
5-Sa	3/30/19	26.2
6-Su	3/31/19	26.6

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-083

DIC: 1316.20

DATE: May 13, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
APRIL 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES PERMIT No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for April 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. However, the blowdown flow recorder (CBD-FR-10) failed on 4/27/2019 and manual logs of the alternate flow indication were used for the remainder of the month.

The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

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WK Whitehead	PE03
JT LePage	1025

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 04/01/2019 - 04/30/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-M	4/1/19	1.0	8.3	8.4	0	24.8					<0.1	<0.1
1-T	4/2/19	2.2	8.0	8.4		25.1	5.1*	12*	<1*	16*		
1-W	4/3/19	1.3	8.1	8.4	0	25.1					<0.1	<0.1
1-Th	4/4/19	0.6	8.3	8.4		25.3						
1-F	4/5/19	1.5	8.1	8.4	0	26.1					<0.1	<0.1
1-Sa	4/6/19	4.8	8.1	8.4		26.6						
2-Su	4/7/19	4.8	8.1	8.4		28.0						
2-M	4/8/19	1.1	8.3	8.3	0	27.6					<0.1	<0.1
2-T	4/9/19	2.0	8.2	8.4		26.3						
2-W	4/10/19	0.5	8.3	8.4	0	27.1					<0.1	<0.1
2-Th	4/11/19	2.9	8.2	8.3		25.1						
2-F	4/12/19	1.4	8.2	8.3	0	24.9					<0.1	<0.1
2-Sa	4/13/19	2.6	8.2	8.3		26.0						
3-Su	4/14/19	2.6	8.2	8.3		25.9						
3-M	4/15/19	1.0	8.3	8.4	0	24.3					<0.1	<0.1
3-T	4/16/19	3.1	8.2	8.4		25.4						
3-W	4/17/19	1.0	8.3	8.3	0	25.4					<0.1	<0.1
3-Th	4/18/19	2.8	8.2	8.4		28.1						
3-F	4/19/19	1.3	8.2	8.3	0	28.2					<0.1	<0.1
3-Sa	4/20/19	2.5	8.2	8.3		26.3						
4-Su	4/21/19	2.5	8.2	8.3		24.6						
4-M	4/22/19	0.7	8.3	8.3	0	24.8					<0.1	<0.1
4-T	4/23/19	3.2	8.2	8.3		27.9						
4-W	4/24/19	1.0	8.3	8.3	0	27.1					<0.1	<0.1
4-Th	4/25/19	3.1	8.2	8.3		24.8						
4-F	4/26/19	0.5	8.3	8.3		24.7						
4-Sa	4/27/19	2.5	8.2	8.3	0	25.1					<0.1	<0.1
5-Su	4/28/19	2.9	8.2	8.3		24.2						
5-M	4/29/19	0.7	8.3	8.3	0	22.8					<0.1	<0.1
5-T	4/30/19	2.9	8.3	8.3		23.9						
Instantaneous Minimum			8.0									
			>= 6.5 (RO)									
Average Monthly		2.0							<1	16		
		<= 5.6							<= 8.2	<= 53		
Instantaneous Maximum				8.4								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-M	4/1/19		
1-T	4/2/19		
1-W	4/3/19		
1-Th	4/4/19		
1-F	4/5/19		
1-Sa	4/6/19		
2-Su	4/7/19		
2-M	4/8/19		
2-T	4/9/19		
2-W	4/10/19		
2-Th	4/11/19		
2-F	4/12/19		
2-Sa	4/13/19		
3-Su	4/14/19		
3-M	4/15/19		
3-T	4/16/19		
3-W	4/17/19		
3-Th	4/18/19		
3-F	4/19/19		
3-Sa	4/20/19		
4-Su	4/21/19		
4-M	4/22/19		
4-T	4/23/19		
4-W	4/24/19		
4-Th	4/25/19		
4-F	4/26/19		
4-Sa	4/27/19		
5-Su	4/28/19		
5-M	4/29/19		
5-T	4/30/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	4/2/2019	5.1	Results reported from a grab sample collected 4/2/2019
CWB	Copper Total Micrograms/L (ug/L)	4/2/2019	12	Results reported from a 24-hr composite sample collected 4/1/2019-4/2/2019
CWB	Chromium Total Micrograms/L (ug/L)	4/2/2019	B<1	Results reported from a 24-hr composite sample collected 4/1/2019-4/2/2019
CWB	Zinc Total Micrograms/L (ug/L)	4/2/2019	16	Results reported from a 24-hr composite sample collected 4/1/2019-4/2/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 04/01/2019 - 04/30/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-M	4/1/19	31122
1-T	4/2/19	32222
1-W	4/3/19	29622
1-Th	4/4/19	16022
1-F	4/5/19	16022
1-Sa	4/6/19	42322
2-Su	4/7/19	16022
2-M	4/8/19	29022
2-T	4/9/19	48022
2-W	4/10/19	42122
2-Th	4/11/19	29422
2-F	4/12/19	28622
2-Sa	4/13/19	16022
3-Su	4/14/19	28422
3-M	4/15/19	16022
3-T	4/16/19	28122
3-W	4/17/19	28322
3-Th	4/18/19	41622
3-F	4/19/19	28622
3-Sa	4/20/19	16022
4-Su	4/21/19	16022
4-M	4/22/19	16022
4-T	4/23/19	28898
4-W	4/24/19	28351
4-Th	4/25/19	28722
4-F	4/26/19	16022
4-Sa	4/27/19	28578
5-Su	4/28/19	28507
5-M	4/29/19	28481
5-T	4/30/19	28322
Monthly Total		811665

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 04/01/2019 - 04/30/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-M	4/1/19	23.2
1-T	4/2/19	25.1
1-W	4/3/19	24.0
1-Th	4/4/19	22.5
1-F	4/5/19	25.3
1-Sa	4/6/19	26.7
2-Su	4/7/19	26.1
2-M	4/8/19	21.5
2-T	4/9/19	24.6
2-W	4/10/19	22.5
2-Th	4/11/19	24.9
2-F	4/12/19	23.2
2-Sa	4/13/19	24.2
3-Su	4/14/19	24.2
3-M	4/15/19	22.6
3-T	4/16/19	25.5
3-W	4/17/19	23.8
3-Th	4/18/19	26.2
3-F	4/19/19	25.2
3-Sa	4/20/19	25.2
4-Su	4/21/19	24.9
4-M	4/22/19	23.1
4-T	4/23/19	26.1
4-W	4/24/19	23.6
4-Th	4/25/19	25.4
4-F	4/26/19	23.4
4-Sa	4/27/19	24.4
5-Su	4/28/19	24.4
5-M	4/29/19	21.9
5-T	4/30/19	25.0

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-094

DIC: 1316.20

DATE: June 12, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
MAY 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES PERMIT No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for May 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. However, alternate flow records were used throughout the month due to instrumentation issues and refueling outage R24. The blowdown flow recorder (CBD-FR-10) was out of service during the first half of the month therefore CBD-FI-1A manual logs were used. Additionally, during the maintenance outage, a temporary digital flow meter and ultrasonic flow meter with manual logs were used.

The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

SEK LB	
WK Whitehead	PE03
JT LePage	1025

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Docket File	PE20
Columbia Files	964Y

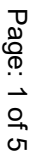
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Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permittee: Energy Northwest Columbia Generating Station

Receiving Waterbody:

Version: 1

[illegible]

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-W	5/1/19		
1-Th	5/2/19		
1-F	5/3/19		
1-Sa	5/4/19		
2-Su	5/5/19		
2-M	5/6/19		
2-T	5/7/19		
2-W	5/8/19		
2-Th	5/9/19		
2-F	5/10/19		
2-Sa	5/11/19		
3-Su	5/12/19		
3-M	5/13/19		
3-T	5/14/19		
3-W	5/15/19		
3-Th	5/16/19		
3-F	5/17/19		
3-Sa	5/18/19		
4-Su	5/19/19		
4-M	5/20/19		
4-T	5/21/19		
4-W	5/22/19		
4-Th	5/23/19		
4-F	5/24/19		
4-Sa	5/25/19		
5-Su	5/26/19		
5-M	5/27/19		
5-T	5/28/19		
5-W	5/29/19		
5-Th	5/30/19		
5-F	5/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	5/7/2019	2.9	Results reported from a grab sample collected 5/7/2019
CWB	Copper Total Micrograms/L (ug/L)	5/7/2019	12	Results reported from a 24-hr composite sample collected 5/6/2019-5/7/2019
CWB	Chromium Total Micrograms/L (ug/L)	5/7/2019	B<1	Results reported from a 24-hr composite sample collected 5/6/2019-5/7/2019
CWB	Zinc Total Micrograms/L (ug/L)	5/7/2019	12	Results reported from a 24-hr composite sample collected 5/6/2019-5/7/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 05/01/2019 - 05/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-W	5/1/19	36182
1-Th	5/2/19	23482
1-F	5/3/19	35782
1-Sa	5/4/19	36482
2-Su	5/5/19	36282
2-M	5/6/19	23482
2-T	5/7/19	36182
2-W	5/8/19	36382
2-Th	5/9/19	23482
2-F	5/10/19	36182
2-Sa	5/11/19	36082
3-Su	5/12/19	36182
3-M	5/13/19	36282
3-T	5/14/19	113432
3-W	5/15/19	38782
3-Th	5/16/19	27782
3-F	5/17/19	32782
3-Sa	5/18/19	23482
4-Su	5/19/19	23482
4-M	5/20/19	23482
4-T	5/21/19	23482
4-W	5/22/19	23482
4-Th	5/23/19	23482
4-F	5/24/19	36482
4-Sa	5/25/19	23482
5-Su	5/26/19	23482
5-M	5/27/19	23482
5-T	5/28/19	23482
5-W	5/29/19	23482
5-Th	5/30/19	38982
5-F	5/31/19	39382
Monthly Total		1018392

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 05/01/2019 - 05/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow
		Million Gallons/Day Continuous Metered/Recorded
1-W	5/1/19	22.9
1-Th	5/2/19	25.2
1-F	5/3/19	24.7
1-Sa	5/4/19	25.1
2-Su	5/5/19	25.9
2-M	5/6/19	23.2
2-T	5/7/19	25.6
2-W	5/8/19	23.5
2-Th	5/9/19	23.8
2-F	5/10/19	21.6
2-Sa	5/11/19	6.7
3-Su	5/12/19	5.8
3-M	5/13/19	5.8
3-T	5/14/19	5.8
3-W	5/15/19	4.8
3-Th	5/16/19	0.0
3-F	5/17/19	5.8
3-Sa	5/18/19	5.8
4-Su	5/19/19	5.8
4-M	5/20/19	5.8
4-T	5/21/19	5.8
4-W	5/22/19	5.8
4-Th	5/23/19	5.8
4-F	5/24/19	5.8
4-Sa	5/25/19	5.8
5-Su	5/26/19	5.8
5-M	5/27/19	5.8
5-T	5/28/19	5.8
5-W	5/29/19	5.8
5-Th	5/30/19	5.8
5-F	5/31/19	5.8

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

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Signature

Date



INTEROFFICE MEMO

GO2-19-106

DIC: 1316.20

DATE: July 11, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
JUNE 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for June 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. However, alternate flow records were used due to refueling outage R24. A temporary digital flow meter and CBD-FI-1A manual logs were used during the maintenance outage and for initial startup after outage.

The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

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Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services
Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP
Approved by: Brad Barfuss, Supervisor, Environmental Services
Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 06/01/2019 - 06/30/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-Sa	6/1/19	2.3	7.8	7.9		26.7						
2-Su	6/2/19	2.3	7.8	7.9		26.9						
2-M	6/3/19	2.2	7.8	7.9		26.8						
2-T	6/4/19	1.7	7.7	7.9		26.7						
2-W	6/5/19	1.4	7.9	7.9		27.0						
2-Th	6/6/19	1.7	7.9	7.9		28.2						
2-F	6/7/19	2.2	7.8	7.9		28.0						
2-Sa	6/8/19	2.0	7.9	8.0		26.8						
3-Su	6/9/19	1.9	7.9	7.9		28.0						
3-M	6/10/19	2.2	7.8	8.0		27.8						
3-T	6/11/19	1.8	7.7	8.2		27.7						
3-W	6/12/19	2.7	8.1	8.3		20.5						
3-Th	6/13/19	2.7	7.8	8.3		21.7						
3-F	6/14/19	2.7	8.1	8.2		20.3						
3-Sa	6/15/19	2.8	7.6	8.4		18.3						
4-Su	6/16/19	3.9	7.7	8.4		21.3						
4-M	6/17/19	4.3	7.8	8.3		21.7						
4-T	6/18/19	4.3	7.5	8.4		26.4						
4-W	6/19/19	4.5	7.1	8.0		32.5						
4-Th	6/20/19	4.5	7.3	7.7		35.3	2*					
4-F	6/21/19	4.4	7.4	7.9		34.1		12*	<1*	15*		
4-Sa	6/22/19	4.1	7.8	8.3		29.7						
5-Su	6/23/19	4.1	8.2	8.5		29.8						
5-M	6/24/19	0.9	8.0	8.5	0	29.7					<0.1	<0.1
5-T	6/25/19	1.6	7.7	8.3		27.9						
5-W	6/26/19	1.7	8.1	8.3		29.3						
5-Th	6/27/19	2.1	8.0	8.3		30.3						
5-F	6/28/19	0.8	7.7	8.3	0	29					<0.1	<0.1
5-Sa	6/29/19	1.5	8.1	8.3		28.3						
6-Su	6/30/19	1.5	7.4	8.2		29.1						
Instantaneous Minimum			7.1									
			>= 6.5 (RO)									
Average Monthly		2.6										
		<= 5.6										
Instantaneous Maximum				8.5								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-Sa	6/1/19		
2-Su	6/2/19		
2-M	6/3/19		
2-T	6/4/19		
2-W	6/5/19		
2-Th	6/6/19		
2-F	6/7/19		
2-Sa	6/8/19		
3-Su	6/9/19		
3-M	6/10/19		
3-T	6/11/19		
3-W	6/12/19		
3-Th	6/13/19		
3-F	6/14/19		
3-Sa	6/15/19		
4-Su	6/16/19		
4-M	6/17/19		
4-T	6/18/19		
4-W	6/19/19		
4-Th	6/20/19		
4-F	6/21/19		
4-Sa	6/22/19		
5-Su	6/23/19		
5-M	6/24/19		
5-T	6/25/19		
5-W	6/26/19		
5-Th	6/27/19		
5-F	6/28/19		
5-Sa	6/29/19		
6-Su	6/30/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	6/20/2019	2	Results reported from a grab sample collected 6/19/2019
CWB	Copper Total Micrograms/L (ug/L)	6/20/2019	12	Results reported from a 24-hr composite sample collected 6/19/2019-6/20/2019
CWB	Chromium Total Micrograms/L (ug/L)	6/20/2019	B<1	Results reported from a 24-hr composite sample collected 6/19/2019-6/20/2019
CWB	Zinc Total Micrograms/L (ug/L)	6/20/2019	15	Results reported from a 24-hr composite sample collected 6/19/2019-6/20/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 06/01/2019 - 06/30/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-Sa	6/1/19	51210
2-Su	6/2/19	35810
2-M	6/3/19	51610
2-T	6/4/19	35710
2-W	6/5/19	35910
2-Th	6/6/19	35710
2-F	6/7/19	35910
2-Sa	6/8/19	35710
3-Su	6/9/19	35910
3-M	6/10/19	35510
3-T	6/11/19	20010
3-W	6/12/19	51610
3-Th	6/13/19	33010
3-F	6/14/19	35910
3-Sa	6/15/19	20010
4-Su	6/16/19	20010
4-M	6/17/19	35810
4-T	6/18/19	20010
4-W	6/19/19	20010
4-Th	6/20/19	20010
4-F	6/21/19	20010
4-Sa	6/22/19	20010
5-Su	6/23/19	20010
5-M	6/24/19	20010
5-T	6/25/19	20010
5-W	6/26/19	20010
5-Th	6/27/19	20010
5-F	6/28/19	20010
5-Sa	6/29/19	20010
6-Su	6/30/19	20010
Monthly Total		865500

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 06/01/2019 - 06/30/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow
		Million Gallons/Day Continuous Metered/Recorded
1-Sa	6/1/19	5.8
2-Su	6/2/19	5.8
2-M	6/3/19	5.8
2-T	6/4/19	5.8
2-W	6/5/19	5.8
2-Th	6/6/19	5.8
2-F	6/7/19	5.8
2-Sa	6/8/19	5.8
3-Su	6/9/19	5.8
3-M	6/10/19	5.8
3-T	6/11/19	8.4
3-W	6/12/19	5.5
3-Th	6/13/19	5.6
3-F	6/14/19	5.7
3-Sa	6/15/19	5.7
4-Su	6/16/19	5.8
4-M	6/17/19	6.1
4-T	6/18/19	8.1
4-W	6/19/19	9.5
4-Th	6/20/19	11.3
4-F	6/21/19	18.0
4-Sa	6/22/19	25.2
5-Su	6/23/19	25.6
5-M	6/24/19	24.2
5-T	6/25/19	25.3
5-W	6/26/19	24.5
5-Th	6/27/19	25.2
5-F	6/28/19	24.2
5-Sa	6/29/19	24.6
6-Su	6/30/19	26.3

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-117

DIC: 1316.20

DATE: August 13, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
JULY 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for July 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. Grab samples for pH were conducted during the last week of the month due to issues with the continuous pH meter.

The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

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Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services
Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP
Approved by: Brad Barfuss, Supervisor, Environmental Services
Approved by: Shannon Khounnala, Manager, E&RP



Permittee: Energy Northwest Columbia Generating Station

Version: 1

		CWB	CWB	CWB	CWB	CWB	CWB	CWB	CWB	CWB	CWB
Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
Week											
1-M	7/1/19	0.5	8.2	8.3	0	29.4				<0.1	<0.1
1-T	7/2/19	3.0	8.0	8.3		30.9	1.4*	17*	1.5*	34*	
1-W	7/3/19	1.0	8.2	8.3	0	30.8				<0.1	<0.1
1-Th	7/4/19	2.9	8.1	8.3		30.7					
1-F	7/5/19	1.0	8.2	8.3	0	30.7				<0.1	<0.1
1-Sa	7/6/19	4.3	8.2	8.3		31.4					
2-Su	7/7/19	4.3	8.0	8.3		31.0					
2-M	7/8/19	1.3	8.1	8.3	0	28.9				<0.1	<0.1
2-T	7/9/19	4.3	7.8	8.3		30.7					
2-W	7/10/19	0.9	8.2	8.3	0	31.0				<0.1	<0.1
2-Th	7/11/19	2.0	7.8	8.2		31.4					
2-F	7/12/19	1.3	8.1	8.2	0	31.6				<0.1	<0.1
2-Sa	7/13/19	2.2	7.8	8.2		31.7					
3-Su	7/14/19	2.2	8.1	8.2		31.8					
3-M	7/15/19	0.7	8.1	8.2	0	30.9				<0.1	<0.1
3-T	7/16/19	2.8	7.9	8.2		31.1					
3-W	7/17/19	1.1	8.0	8.2	0	31.1				<0.1	<0.1
3-Th	7/18/19	4.1	7.9	8.2		31.6					
3-F	7/19/19	1.4	8.0	8.2	0	30.9				<0.1	<0.1
3-Sa	7/20/19	1.9	7.8	8.3		29.7					
4-Su	7/21/19	1.9	8.2	8.3		30.3					
4-M	7/22/19	1.1	8.2	8.3	0	31.9				<0.1	<0.1
4-T	7/23/19	2.6	8.2	8.3		32.4					
4-W	7/24/19	1.4	8.2	8.3	0	32.5				<0.1	<0.1
4-Th	7/25/19	3.3	8.2	8.3		31.3					
4-F	7/26/19	2.2	8.1	8.3		32.0					
4-Sa	7/27/19	3.3	8.1	8.3		32.2					
5-Su	7/28/19	3.3	8.1	8.3		31.8					
5-M	7/29/19	0.8	8.2	8.2	0	31.2				<0.1	<0.1
5-T	7/30/19	2.5	8.3	8.4		31.6					
5-W	7/31/19	0.9	8.3	8.3	0	31.6				<0.1	<0.1
Instantaneous Minimum		7.8									
Average Monthly	2.14516 <= 5.6							1.5 <= 8.2	34 <= 53		
Instantaneous Maximum			8.4 <= 9.0 (RO)								
Monthly Total				0 <= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-M	7/1/19		
1-T	7/2/19		
1-W	7/3/19		
1-Th	7/4/19		
1-F	7/5/19		
1-Sa	7/6/19		
2-Su	7/7/19		
2-M	7/8/19		
2-T	7/9/19		
2-W	7/10/19		
2-Th	7/11/19		
2-F	7/12/19		
2-Sa	7/13/19		
3-Su	7/14/19		
3-M	7/15/19		
3-T	7/16/19		
3-W	7/17/19		
3-Th	7/18/19		
3-F	7/19/19		
3-Sa	7/20/19		
4-Su	7/21/19		
4-M	7/22/19		
4-T	7/23/19		
4-W	7/24/19		
4-Th	7/25/19		
4-F	7/26/19		
4-Sa	7/27/19		
5-Su	7/28/19		
5-M	7/29/19		
5-T	7/30/19		
5-W	7/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	7/2/2019	1.4	Results reported from a grab sample collected 7/2/19
CWB	Copper Total Micrograms/L (ug/L)	7/2/2019	17	Results reported from a 24-hr composite sample collected 7/1/2019-7/2/2019
CWB	Chromium Total Micrograms/L (ug/L)	7/2/2019	1.5	Results reported from a 24-hr composite sample collected 7/1/2019-7/2/2019
CWB	Zinc Total Micrograms/L (ug/L)	7/2/2019	34	Results reported from a 24-hr composite sample collected 7/1/2019-7/2/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 07/01/2019 - 07/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-M	7/1/19	17157
1-T	7/2/19	32557
1-W	7/3/19	33157
1-Th	7/4/19	17157
1-F	7/5/19	33257
1-Sa	7/6/19	32657
2-Su	7/7/19	33157
2-M	7/8/19	17157
2-T	7/9/19	33457
2-W	7/10/19	32757
2-Th	7/11/19	17157
2-F	7/12/19	30357
2-Sa	7/13/19	32957
3-Su	7/14/19	32957
3-M	7/15/19	32957
3-T	7/16/19	17157
3-W	7/17/19	32357
3-Th	7/18/19	32757
3-F	7/19/19	32757
3-Sa	7/20/19	33357
4-Su	7/21/19	17157
4-M	7/22/19	32740
4-T	7/23/19	17157
4-W	7/24/19	32757
4-Th	7/25/19	33457
4-F	7/26/19	17157
4-Sa	7/27/19	33457
5-Su	7/28/19	17157
5-M	7/29/19	33257
5-T	7/30/19	17157
5-W	7/31/19	17157
Monthly Total		845850

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 07/01/2019 - 07/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow
		Million Gallons/Day Continuous Metered/Recorded
1-M	7/1/19	25.2
1-T	7/2/19	27.4
1-W	7/3/19	25.8
1-Th	7/4/19	28.9
1-F	7/5/19	26.5
1-Sa	7/6/19	30.0
2-Su	7/7/19	22.6
2-M	7/8/19	21.9
2-T	7/9/19	29.3
2-W	7/10/19	26.2
2-Th	7/11/19	26.8
2-F	7/12/19	26.6
2-Sa	7/13/19	28.1
3-Su	7/14/19	27.7
3-M	7/15/19	25.8
3-T	7/16/19	28.1
3-W	7/17/19	26.2
3-Th	7/18/19	28.8
3-F	7/19/19	25.5
3-Sa	7/20/19	26.7
4-Su	7/21/19	27.4
4-M	7/22/19	26.9
4-T	7/23/19	28.7
4-W	7/24/19	25.9
4-Th	7/25/19	27.8
4-F	7/26/19	27.4
4-Sa	7/27/19	28.1
5-Su	7/28/19	27.7
5-M	7/29/19	25.3
5-T	7/30/19	27.0
5-W	7/31/19	25.3

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-134

DIC: 1316.20

DATE: September 12, 2019
TO: Columbia Generating Station (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
AUGUST 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for August 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The data source for the circulating water blowdown pH was changed to the monitor located in the dehalogenation trailer, which is downstream of the dehalogenation system. This change was due in-part to issues with the existing continuous pH meter and in preparation for the planned start-up of the continuous halogenation and dehalogenation process. Calibration of the new pH location was verified prior to placing the new pH probe into service. Additionally, because of erratic response from the blowdown flowmeter during the last week of August, manual readings from the alternate flow meter (CBD-FI-1A) were used.

The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

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WK Whitehead PE03
JT LePage 1025

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Columbia Generating Station
Page 2 of 2
September 12, 2019
Columbia Generating Station
AUGUST 2019 NPDES DISCHARGE MONITORING REPORT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: Conner Holbrook, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 08/01/2019 - 08/31/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-Th	8/1/19	4.3	8.0	8.3		32.2						
1-F	8/2/19	2.8	8.2	8.4	0	32.9					<0.1	<0.1
1-Sa	8/3/19	4.4	8.3	8.5		32.5						
2-Su	8/4/19	4.4	8.1	8.5		31.3						
2-M	8/5/19	1.4	7.8	8.3	0	31.3					<0.1	<0.1
2-T	8/6/19	4.2	7.7	8.5		32.7	2.5*	11*	<1*	12*		
2-W	8/7/19	1.8	8.3	8.7	0	32.3					<0.1	<0.1
2-Th	8/8/19	4.2	8.3	8.5		32.8						
2-F	8/9/19	2.2	8.2	8.5	0	32.7					<0.1	<0.1
2-Sa	8/10/19	5.3	8.3	8.5		32.8						
3-Su	8/11/19	5.3	8.4	8.5		32.1						
3-M	8/12/19	1.5	8.4	8.5	0	31.0					<0.1	<0.1
3-T	8/13/19	1.8	8.1	8.7		30.7						
3-W	8/14/19	2.1	8.1	8.5	0	32.3					<0.1	<0.1
3-Th	8/15/19	4.3	8.0	8.4		31.8						
3-F	8/16/19	2.5	7.9	8.4	0	31.6					<0.1	<0.1
3-Sa	8/17/19	4.2	8.2	8.5		31.2						
4-Su	8/18/19	4.2	8.1	8.4		31.8						
4-M	8/19/19	2.2	7.9	8.6	0	32.0					<0.1	<0.1
4-T	8/20/19	4.5	7.9	8.6		31.6						
4-W	8/21/19	2.1	8.3	8.4	0	32.8					<0.1	<0.1
4-Th	8/22/19	4.2	8.3	8.4		31.8						
4-F	8/23/19	1.2	8.3	8.4	0	31.0					<0.1	<0.1
4-Sa	8/24/19	4.4	8.1	8.5		31.4						
5-Su	8/25/19	4.4	8.3	8.4		31.2						
5-M	8/26/19	2.1	8.2	8.4	0	30.4					<0.1	<0.1
5-T	8/27/19	4.1	7.8	8.4		31.4						
5-W	8/28/19	2.1	8.0	8.4	0	32.2					<0.1	<0.1
5-Th	8/29/19	4.0	8.1	8.4		33.7						
5-F	8/30/19	2.9	8.2	8.4	0	34.5					<0.1	<0.1
5-Sa	8/31/19	3.9	8.2	8.5		33.9						
Instantaneous Minimum			7.7									
			>= 6.5 (RO)									
Average Monthly		<= 5.6							<1	12	<= 8.2	<= 53
Instantaneous Maximum				8.7								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-Th	8/1/19		
1-F	8/2/19		
1-Sa	8/3/19		
2-Su	8/4/19		
2-M	8/5/19		
2-T	8/6/19		
2-W	8/7/19		
2-Th	8/8/19		
2-F	8/9/19		
2-Sa	8/10/19		
3-Su	8/11/19		
3-M	8/12/19		
3-T	8/13/19		
3-W	8/14/19		
3-Th	8/15/19		
3-F	8/16/19		
3-Sa	8/17/19		
4-Su	8/18/19		
4-M	8/19/19		
4-T	8/20/19		
4-W	8/21/19		
4-Th	8/22/19		
4-F	8/23/19		
4-Sa	8/24/19		
5-Su	8/25/19		
5-M	8/26/19		
5-T	8/27/19		
5-W	8/28/19		
5-Th	8/29/19		
5-F	8/30/19		
5-Sa	8/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	8/6/2019	2.5	Results reported from a grab sample collected 8/6/2019
CWB	Copper Total Micrograms/L (ug/L)	8/6/2019	11	Results reported from a 24-hr composite sample collected 8/5/2019-8/6/2019
CWB	Chromium Total Micrograms/L (ug/L)	8/6/2019	B<1	Results reported from a 24-hr composite sample collected 8/5/2019-8/6/2019
CWB	Zinc Total Micrograms/L (ug/L)	8/6/2019	12	Results reported from a 24-hr composite sample collected 8/5/2019-8/6/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 08/01/2019 - 08/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume
		Monthly Gallons 1/Day - recorded but not reported Pnd Calculated
1-Th	8/1/19	29144
1-F	8/2/19	13044
1-Sa	8/3/19	44944
2-Su	8/4/19	13044
2-M	8/5/19	13044
2-T	8/6/19	28844
2-W	8/7/19	29244
2-Th	8/8/19	13044
2-F	8/9/19	28744
2-Sa	8/10/19	13044
3-Su	8/11/19	58143
3-M	8/12/19	29547
3-T	8/13/19	13044
3-W	8/14/19	28844
3-Th	8/15/19	13044
3-F	8/16/19	25644
3-Sa	8/17/19	25744
4-Su	8/18/19	13044
4-M	8/19/19	25344
4-T	8/20/19	13044
4-W	8/21/19	28244
4-Th	8/22/19	29044
4-F	8/23/19	13044
4-Sa	8/24/19	13044
5-Su	8/25/19	28344
5-M	8/26/19	13044
5-T	8/27/19	28644
5-W	8/28/19	29244
5-Th	8/29/19	13044
5-F	8/30/19	28544
5-Sa	8/31/19	28844
Monthly Total		724666

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 08/01/2019 - 08/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow
		Million Gallons/Day Continuous Metered/Recorded
1-Th	8/1/19	29.1
1-F	8/2/19	27.1
1-Sa	8/3/19	28.3
2-Su	8/4/19	29.1
2-M	8/5/19	26.2
2-T	8/6/19	29.3
2-W	8/7/19	27.4
2-Th	8/8/19	28.6
2-F	8/9/19	26.5
2-Sa	8/10/19	28.6
3-Su	8/11/19	28.4
3-M	8/12/19	25.1
3-T	8/13/19	25.7
3-W	8/14/19	26.6
3-Th	8/15/19	29.0
3-F	8/16/19	26.8
3-Sa	8/17/19	28.3
4-Su	8/18/19	28.2
4-M	8/19/19	26.8
4-T	8/20/19	29.0
4-W	8/21/19	26.4
4-Th	8/22/19	28.1
4-F	8/23/19	25.1
4-Sa	8/24/19	29.2
5-Su	8/25/19	28.9
5-M	8/26/19	26.4
5-T	8/27/19	28.5
5-W	8/28/19	26.9
5-Th	8/29/19	28.4
5-F	8/30/19	27.3
5-Sa	8/31/19	28.8

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-149

DIC: 1316.20

DATE: October 10, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
SEPTEMBER 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for September 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

SEK LB	
WK Whitehead	PE03
JT LePage	1025

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: Conner Holbrook, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 09/01/2019 - 09/30/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-Su	9/1/19	4.8	7.9	8.5		33.6						
1-M	9/2/19	2.7	7.8	8.2	0	32.7					<0.1	<0.1
1-T	9/3/19	4.5	8.0	8.2		33.1	0.9*	8.2*	<1*	10*		
1-W	9/4/19	2.4	8.0	8.3	0	33.4					<0.1	<0.1
1-Th	9/5/19	4.7	7.9	8.2		32.7						
1-F	9/6/19	2.3	7.9	8.2	0	33.4					<0.1	<0.1
1-Sa	9/7/19	4.9	8.1	8.4		34.9						
2-Su	9/8/19	4.9	7.9	8.3		35.6						
2-M	9/9/19	2.7	7.9	8.5	0	34.1					<0.1	<0.1
2-T	9/10/19	4.3	7.8	8.7		33.7						
2-W	9/11/19	1.3	7.7	8.2	0	33.1					<0.1	<0.1
2-Th	9/12/19	4.6	7.6	8.1		34.5						
2-F	9/13/19	2.5	7.9	8.3	0	34.1					<0.1	<0.1
2-Sa	9/14/19	4.1	8.1	8.3		33.9						
3-Su	9/15/19	4.2	8.0	8.3		34.7						
3-M	9/16/19	1.9	7.9	8.2	0	33.3					<0.1	<0.1
3-T	9/17/19	4.2	7.8	8.4		33.1						
3-W	9/18/19	1.3	8.1	8.4	0	32.6					<0.1	<0.1
3-Th	9/19/19	2.1	8.0	8.3		32.8						
3-F	9/20/19	1.1	8.2	8.3	0	32.8					<0.1	<0.1
3-Sa	9/21/19	2.6	8.2	8.3		33.0						
4-Su	9/22/19	2.6	8.2	8.3		33.7						
4-M	9/23/19	1.5	8.2	8.4	0	33.5					<0.1	<0.1
4-T	9/24/19	3.2	8.3	8.4		33.7						
4-W	9/25/19	1.4	8.3	8.4	0	33.4					<0.1	<0.1
4-Th	9/26/19	2.8	8.3	8.4		34.1						
4-F	9/27/19	1.3	8.3	8.5		33.7						
4-Sa	9/28/19	2.2	8.4	8.5		27.7						
5-Su	9/29/19	2.2	8.4	8.5		25.9						
5-M	9/30/19	0.6	8.4	8.5	0	25.4					<0.1	<0.1
Instantaneous Minimum			7.6									
			>= 6.5 (RO)									
Average Monthly		2.9							<1	10		
		<= 5.6							<= 8.2	<= 53		
Instantaneous Maximum				8.7								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-Su	9/1/19		
1-M	9/2/19		
1-T	9/3/19		
1-W	9/4/19		
1-Th	9/5/19		
1-F	9/6/19		
1-Sa	9/7/19		
2-Su	9/8/19		
2-M	9/9/19		
2-T	9/10/19		
2-W	9/11/19		
2-Th	9/12/19		
2-F	9/13/19		
2-Sa	9/14/19		
3-Su	9/15/19		
3-M	9/16/19		
3-T	9/17/19		
3-W	9/18/19		
3-Th	9/19/19		
3-F	9/20/19		
3-Sa	9/21/19		
4-Su	9/22/19		
4-M	9/23/19		
4-T	9/24/19		
4-W	9/25/19		
4-Th	9/26/19		
4-F	9/27/19		
4-Sa	9/28/19		
5-Su	9/29/19		
5-M	9/30/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	9/3/2019	0.9	Results reported from a grab sample collected 9/3/2019
CWB	Copper Total Micrograms/L (ug/L)	9/3/2019	8.2	Results reported from a 24-hr composite sample collected 9/2/2019-9/3/2019
CWB	Chromium Total Micrograms/L (ug/L)	9/3/2019	B<1	Results reported from a 24-hr composite sample collected 9/2/2019-9/3/2019
CWB	Zinc Total Micrograms/L (ug/L)	9/3/2019	10	Results reported from a 24-hr composite sample collected 9/2/2019-9/3/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 09/01/2019 - 09/30/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-Su	9/1/19	27326
1-M	9/2/19	11726
1-T	9/3/19	27826
1-W	9/4/19	11726
1-Th	9/5/19	11726
1-F	9/6/19	28026
1-Sa	9/7/19	27626
2-Su	9/8/19	27926
2-M	9/9/19	11726
2-T	9/10/19	28226
2-W	9/11/19	27926
2-Th	9/12/19	28026
2-F	9/13/19	27826
2-Sa	9/14/19	28226
3-Su	9/15/19	11726
3-M	9/16/19	11726
3-T	9/17/19	28226
3-W	9/18/19	27726
3-Th	9/19/19	27926
3-F	9/20/19	28226
3-Sa	9/21/19	28026
4-Su	9/22/19	11726
4-M	9/23/19	28326
4-T	9/24/19	11726
4-W	9/25/19	11726
4-Th	9/26/19	28126
4-F	9/27/19	28126
4-Sa	9/28/19	11726
5-Su	9/29/19	27626
5-M	9/30/19	28226
Monthly Total		676780

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 09/01/2019 - 09/30/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-Su	9/1/19	28.9
1-M	9/2/19	26.4
1-T	9/3/19	28.4
1-W	9/4/19	26.4
1-Th	9/5/19	28.7
1-F	9/6/19	26.9
1-Sa	9/7/19	28.7
2-Su	9/8/19	28.2
2-M	9/9/19	26.6
2-T	9/10/19	27.0
2-W	9/11/19	24.7
2-Th	9/12/19	28.2
2-F	9/13/19	26.4
2-Sa	9/14/19	27.6
3-Su	9/15/19	27.8
3-M	9/16/19	24.0
3-T	9/17/19	26.6
3-W	9/18/19	23.9
3-Th	9/19/19	24.9
3-F	9/20/19	23.9
3-Sa	9/21/19	23.6
4-Su	9/22/19	25.6
4-M	9/23/19	23.7
4-T	9/24/19	26.0
4-W	9/25/19	24.2
4-Th	9/26/19	26.4
4-F	9/27/19	23.9
4-Sa	9/28/19	23.3
5-Su	9/29/19	22.5
5-M	9/30/19	21.5

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-157

DIC: 1316.20

DATE: November 13, 2019
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
OCTOBER 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for October 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

SEK LB	
WK Whitehead	PE03
JT LePage	1025

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Docket File	PE20
Columbia Files	964Y

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services
Reviewed by: Conner Holbrook, Environmental Scientist, Environmental Services
Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP
Approved by: Brad Barfuss, Supervisor, Environmental Services
Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 10/01/2019 - 10/31/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-T	10/1/19	2.7	8.4	8.5		24.8						
1-W	10/2/19	1.2	8.4	8.5	0	24.9					<0.1	<0.1
1-Th	10/3/19	2.6	8.4	8.5		26.9						
1-F	10/4/19	1.2	8.4	8.5	0	26.9					<0.1	<0.1
1-Sa	10/5/19	2.6	8.4	8.5		27.2						
2-Su	10/6/19	2.6	8.4	8.5		27.1						
2-M	10/7/19	1.3	8.4	8.5	0	29.0	1.0*	12*	<1*	15*	<0.1	<0.1
2-T	10/8/19	2.9	8.4	8.5		30.5						
2-W	10/9/19	1.2	8.3	8.5	0	25.7					<0.1	<0.1
2-Th	10/10/19	3.0	8.2	8.3		23.8						
2-F	10/11/19	1.2	8.2	8.3	0	23.5					<0.1	<0.1
2-Sa	10/12/19	2.2	8.3	8.3		24.1						
3-Su	10/13/19	2.2	8.3	8.3		25.3						
3-M	10/14/19	1.0	8.2	8.3	0	25.7					<0.1	<0.1
3-T	10/15/19	3.2	8.2	8.3		26.1						
3-W	10/16/19	0.7	8.2	8.3	0	26.1					<0.1	<0.1
3-Th	10/17/19	2.8	8.2	8.3		28.8						
3-F	10/18/19	1.2	8.2	8.3	0	28.4					<0.1	<0.1
3-Sa	10/19/19	2.5	8.2	8.3		27.9						
4-Su	10/20/19	2.5	8.2	8.3		26.7						
4-M	10/21/19	1.3	8.2	8.3	0	27.7					<0.1	<0.1
4-T	10/22/19	2.6	8.2	8.3		30.8						
4-W	10/23/19	0.8	8.2	8.3	0	28.2					<0.1	<0.1
4-Th	10/24/19	3.4	8.2	8.3		25.3						
4-F	10/25/19	1.8	8.2	8.3	0	27.7					<0.1	<0.1
4-Sa	10/26/19	2.8	8.2	8.3		26.9						
5-Su	10/27/19	2.9	8.1	8.3		24.8						
5-M	10/28/19	0.8	8.1	8.3	0	23.2					<0.1	<0.1
5-T	10/29/19	2.6	8.0	8.3		24.3						
5-W	10/30/19	1.2	8.0	8.1	0	25.4					<0.1	<0.1
5-Th	10/31/19	2.5	8.0	8.2		26.3						
Instantaneous Minimum			8.0									
			>= 6.5 (RO)									
Average Monthly		2.1							<1	15		
		<= 5.6							<= 8.2	<= 53		
Instantaneous Maximum				8.5								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Week	Monitoring Point	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
		SSWD	SSWD
1-T	10/1/19		
1-W	10/2/19		
1-Th	10/3/19		
1-F	10/4/19		
1-Sa	10/5/19		
2-Su	10/6/19		
2-M	10/7/19		
2-T	10/8/19		
2-W	10/9/19		
2-Th	10/10/19		
2-F	10/11/19		
2-Sa	10/12/19		
3-Su	10/13/19		
3-M	10/14/19		
3-T	10/15/19		
3-W	10/16/19		
3-Th	10/17/19		
3-F	10/18/19		
3-Sa	10/19/19		
4-Su	10/20/19		
4-M	10/21/19		
4-T	10/22/19		
4-W	10/23/19		
4-Th	10/24/19		
4-F	10/25/19		
4-Sa	10/26/19		
5-Su	10/27/19		
5-M	10/28/19		
5-T	10/29/19		
5-W	10/30/19		
5-Th	10/31/19		
Instantaneous Minimum			
Average Monthly			
Instantaneous Maximum			
Monthly Total			



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	10/7/2019	1.0	Results reported from a grab sample collected 10/7/2019
CWB	Copper Total Micrograms/L (ug/L)	10/7/2019	12	Results reported from a 24-hr composite sample collected 10/6/2019-10/7/2019
CWB	Chromium Total Micrograms/L (ug/L)	10/7/2019	B<1	Results reported from a 24-hr composite sample collected 10/6/2019-10/7/2019
CWB	Zinc Total Micrograms/L (ug/L)	10/7/2019	15	Results reported from a 24-hr composite sample collected 10/6/2019-10/7/2019
CWB2	All Parameters			Total residual halogen reported
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 10/01/2019 - 10/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-T	10/1/19	33599
1-W	10/2/19	33199
1-Th	10/3/19	17099
1-F	10/4/19	33699
1-Sa	10/5/19	17099
2-Su	10/6/19	17099
2-M	10/7/19	17099
2-T	10/8/19	17099
2-W	10/9/19	49499
2-Th	10/10/19	17099
2-F	10/11/19	32299
2-Sa	10/12/19	17099
3-Su	10/13/19	17099
3-M	10/14/19	17099
3-T	10/15/19	33199
3-W	10/16/19	17099
3-Th	10/17/19	33299
3-F	10/18/19	17099
3-Sa	10/19/19	17099
4-Su	10/20/19	17099
4-M	10/21/19	33299
4-T	10/22/19	32099
4-W	10/23/19	33199
4-Th	10/24/19	17099
4-F	10/25/19	32799
4-Sa	10/26/19	17099
5-Su	10/27/19	33099
5-M	10/28/19	17099
5-T	10/29/19	33399
5-W	10/30/19	17099
5-Th	10/31/19	32899
Monthly Total		770269

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 10/01/2019 - 10/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-T	10/1/19	23.9
1-W	10/2/19	22.3
1-Th	10/3/19	24.5
1-F	10/4/19	22.9
1-Sa	10/5/19	24.5
2-Su	10/6/19	24.3
2-M	10/7/19	23.5
2-T	10/8/19	24.9
2-W	10/9/19	22.5
2-Th	10/10/19	23.1
2-F	10/11/19	21.5
2-Sa	10/12/19	22.6
3-Su	10/13/19	23.3
3-M	10/14/19	22.5
3-T	10/15/19	24.0
3-W	10/16/19	22.2
3-Th	10/17/19	24.7
3-F	10/18/19	22.7
3-Sa	10/19/19	23.0
4-Su	10/20/19	22.8
4-M	10/21/19	22.1
4-T	10/22/19	24.6
4-W	10/23/19	21.7
4-Th	10/24/19	24.3
4-F	10/25/19	22.9
4-Sa	10/26/19	23.5
5-Su	10/27/19	22.8
5-M	10/28/19	20.9
5-T	10/29/19	21.4
5-W	10/30/19	19.6
5-Th	10/31/19	21.6

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-19-169

DIC: 1316.20

DATE: December 11, 2019
TO: Columbia Generating Station (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
NOVEMBER 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for November 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

It should be noted that the start-up of the new continuous halogenation and dehalogenation system occurred on November 6, 2019.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

SEK LB	
WK Whitehead	PE03
JT LePage	1025

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Columbia Files	964Y

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services

Reviewed by: Conner Holbrook, Environmental Scientist, Environmental Services

Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP

Approved by: Brad Barfuss, Supervisor, Environmental Services

Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Facility County: Benton

Receiving Waterbody:

Permittee: Energy Northwest Columbia Generating Station

Monitoring Period: 1/01/2019 - 11/30/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow	pH Daily Min	pH Daily Max	Duration	Temperature	Turbidity (NTU)	Copper	Chromium	Zinc	Total Residual Chlorine	Halogens
		Million Gallons/Day Continuous Metered/Recorded	Standard Units Continuous Metered/Recorded	Standard Units Continuous Metered/Recorded	pH excursion Minutes Once per defined event Metered/Recorded	Measured Degrees C Continuous Metered/Recorded	Measured NTU Monthly Grab	Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total residual Milligrams/L (mg/L) Once per defined event Grab	Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-F	11/1/19	0.7	8.2	8.2	0	22.5					<0.1*	<0.1
1-Sa	11/2/19	2.4	8.0	8.3		22.8						
2-Su	11/3/19	1.5	8.1	8.3		22.8						
2-M	11/4/19	1.3	8.2	8.4	0	22.8	1.5*	9.9*	1.1*	13*	<0.1*	<0.1
2-T	11/5/19	2.8	8.1	8.5		24.1						
2-W	11/6/19	2.5	8.2	8.6		25.1					<0.1	<0.1
2-Th	11/7/19	2.8	7.9	8.3		24.2						
2-F	11/8/19	2.0	7.9	8.4		23.8					<0.1	<0.1
2-Sa	11/9/19	2.8	7.9	8.3		24.0						
3-Su	11/10/19	2.8	8.1	8.3		24.7						
3-M	11/11/19	2.8	8.1	8.3		24.1						
3-T	11/12/19	2.8	8.1	8.4		23.9						
3-W	11/13/19	2.8	8.1	8.3		24.4						
3-Th	11/14/19	2.7	8.1	8.3		24.5						
3-F	11/15/19	2.2	8.1	8.3		25.4						
3-Sa	11/16/19	2.2	8.0	8.3		25.1						
4-Su	11/17/19	2.2	8.2	8.3		26.6						
4-M	11/18/19	2.2	8.1	8.3		26.2						
4-T	11/19/19	2.2	8.2	8.3		25.9						
4-W	11/20/19	2.2	8.2	8.3		25.4						
4-Th	11/21/19	2.2	7.8	8.2		25.2						
4-F	11/22/19	1.2	7.7	8.1		24.4					<0.1	<0.1
4-Sa	11/23/19	2.2	8.0	8.1		24.5						
5-Su	11/24/19	2.2	8.0	8.4		25.3						
5-M	11/25/19	1.3	7.8	8.4		25.1						
5-T	11/26/19	2.2	7.6	8.0		24.5						
5-W	11/27/19	2.3	7.6	7.9		24.3						
5-Th	11/28/19	2.3	7.5	7.6		23.9						
5-F	11/29/19	2.3	7.5	7.6		26.1						
5-Sa	11/30/19	2.2	7.5	7.6		24.2						
Instantaneous Minimum			7.5									
			>= 6.5 (RO)									
Average Monthly		2.2							1.1	13		
		<= 5.6							<= 8.2	<= 53		
Instantaneous Maximum				8.6								
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							



		Halogens, Total Combined, Total Residual Total Residual Milligrams/L (mg/L) 1/Day Grab	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
Week	Monitoring Point	CWB2	SSWD	SSWD
1-F	11/1/19	M		
1-Sa	11/2/19	M		
2-Su	11/3/19	M		
2-M	11/4/19	M		
2-T	11/5/19	M		
2-W	11/6/19	0.05		
2-Th	11/7/19	0.09		
2-F	11/8/19	0.09		
2-Sa	11/9/19	0.03		
3-Su	11/10/19	0.01		
3-M	11/11/19	0.02		
3-T	11/12/19	0.05		
3-W	11/13/19	0.01		
3-Th	11/14/19	0.02		
3-F	11/15/19	0.02		
3-Sa	11/16/19	0.01		
4-Su	11/17/19	0.01		
4-M	11/18/19	0.01		
4-T	11/19/19	0.01		
4-W	11/20/19	0.00		
4-Th	11/21/19	0.00		
4-F	11/22/19	0.04		
4-Sa	11/23/19	0.01		
5-Su	11/24/19	0.06		
5-M	11/25/19	0.02		
5-T	11/26/19	0.01		
5-W	11/27/19	0.06		
5-Th	11/28/19	0.03		
5-F	11/29/19	0.06		
5-Sa	11/30/19	0.03		
Instantaneous Minimum				
Average Monthly				
Instantaneous Maximum				
Monthly Total				



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	Turbidity (Nephelometric) Measured NTU	11/4/2019	1.5	Results from a grab sample collected 11/4/2019
CWB	Copper Total Micrograms/L (ug/L)	11/4/2019	9.9	Results reported from a 24-hr composite sample collected 11/3/2019-11/4/2019
CWB	Chromium Total Micrograms/L (ug/L)	11/4/2019	1.1	Results reported from a 24-hr composite sample collected 11/3/2019-11/4/2019
CWB	Zinc Total Micrograms/L (ug/L)	11/4/2019	13	Results reported from a 24-hr composite sample collected 11/3/2019-11/4/2019
CWB	Chlorine Total residual Milligrams/L (mg/L)	11/1/2019	B <0.1	Batch halogenation, total residual halogen reported
CWB	Chlorine Total residual Milligrams/L (mg/L)	11/4/2019	B <0.1	Batch halogenation, total residual halogen reported
CWB2	All Parameters			Continuous halogenation with dehalogenation begun on 11/6/19. Maximum daily total residual halogen reported.
SSWD	All Parameters		C	No discharge from the standby service water ponds.



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 11/01/2019 - 11/30/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-F	11/1/19	15479
1-Sa	11/2/19	31579
2-Su	11/3/19	15479
2-M	11/4/19	31279
2-T	11/5/19	15479
2-W	11/6/19	15479
2-Th	11/7/19	31479
2-F	11/8/19	31779
2-Sa	11/9/19	31479
3-Su	11/10/19	15479
3-M	11/11/19	31179
3-T	11/12/19	15479
3-W	11/13/19	31179
3-Th	11/14/19	15479
3-F	11/15/19	31879
3-Sa	11/16/19	15479
4-Su	11/17/19	15479
4-M	11/18/19	15479
4-T	11/19/19	29979
4-W	11/20/19	31193
4-Th	11/21/19	15479
4-F	11/22/19	31279
4-Sa	11/23/19	30641
5-Su	11/24/19	15479
5-M	11/25/19	31417
5-T	11/26/19	31479
5-W	11/27/19	15479
5-Th	11/28/19	31279
5-F	11/29/19	15479
5-Sa	11/30/19	30979
Monthly Total		716784

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge, M - Monitoring Is Conditional/Not Req This MP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 11/01/2019 - 11/30/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-F	11/1/19	19.0
1-Sa	11/2/19	21.5
2-Su	11/3/19	20.3
2-M	11/4/19	20.5
2-T	11/5/19	21.9
2-W	11/6/19	21.8
2-Th	11/7/19	21.9
2-F	11/8/19	20.6
2-Sa	11/9/19	21.5
3-Su	11/10/19	21.8
3-M	11/11/19	21.8
3-T	11/12/19	21.2
3-W	11/13/19	22.0
3-Th	11/14/19	21.9
3-F	11/15/19	21.7
3-Sa	11/16/19	20.8
4-Su	11/17/19	21.8
4-M	11/18/19	21.6
4-T	11/19/19	22.0
4-W	11/20/19	22.3
4-Th	11/21/19	20.6
4-F	11/22/19	18.3
4-Sa	11/23/19	19.6
5-Su	11/24/19	21.2
5-M	11/25/19	20.1
5-T	11/26/19	20.1
5-W	11/27/19	21.2
5-Th	11/28/19	20.6
5-F	11/29/19	20.0
5-Sa	11/30/19	19.8

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date



INTEROFFICE MEMO

GO2-20-011

DIC: 1316.20

DATE: January 13, 2020
TO: Columbia Generating Station, (CGS)
FROM: Jane LePage, Environmental Scientist (1025)
SUBJECT: Columbia Generating Station
DECEMBER 2019 NPDES DISCHARGE MONITORING REPORT
REFERENCE: NPDES Permit No. WA002515-1, Condition S3.A

Please find attached the NPDES Discharge Monitoring Report (DMR) for December 2019. All monitoring parameters were within permit specifications for the month with no issues of concern. The report will be submitted electronically to the State of Washington Department of Ecology (Ecology) via Ecology's online reporting system.

If you have any questions concerning this information, please contact WK Whitehead at (509) 377-8794.

JTL

INTERNAL DISTRIBUTION:

SEK LB	
WK Whitehead	PE03
JT LePage	1025

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Docket File	PE20
Columbia Files	964Y

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Prepared by: Jane T. LePage, Environmental Scientist, Environmental Services
Reviewed by: Conner Holbrook, Environmental Scientist, Environmental Services
Reviewed by: W. Kip Whitehead, Environmental Scientist Principal, E&RP
Approved by: Brad Barfuss, Supervisor, Environmental Services
Approved by: Shannon Khounnala, Manager, E&RP



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 12/01/2019 - 12/31/2019

Outfall: 001

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded	pH Daily Min Standard Units Continuous Metered/Recorded	pH Daily Max Standard Units Continuous Metered/Recorded	Duration pH excursion Minutes Once per defined event Metered/Recorded	Temperature Measured Degrees C Continuous Metered/Recorded	Turbidity (NTU) Measured NTU Monthly Grab	Copper Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Chromium Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Zinc Total Micrograms/L (ug/L) Monthly Composite sample (24 hour)	Total Residual Chlorine Total residual Milligrams/L (mg/L) Once per defined event Grab	Halogens Total Combined Milligrams/L (mg/L) Once per defined event Grab
1-Su	12/1/19	2.2	7.6	7.7		26.6						
1-M	12/2/19	2.2	7.6	7.7		24.9						
1-T	12/3/19	1.6	7.5	7.9		24.5	28*	19*	2.0*	42*	<0.1	<0.1
1-W	12/4/19	2.4	7.9	8.0		22.4					<0.1	<0.1
1-Th	12/5/19	0.8	7.8	8.0	0	22.4					<0.1	<0.1
1-F	12/6/19	2.7	7.9	8.0		22.8						
1-Sa	12/7/19	2.7	7.9	8.0		23.5						
2-Su	12/8/19	2.7	7.9	8.0		24.2						
2-M	12/9/19	1.4	7.6	7.9		24.0					<0.1	<0.1
2-T	12/10/19	2.6	7.5	8.0		23.2						
2-W	12/11/19	1.7	7.5	7.6		22.6					<0.1	<0.1
2-Th	12/12/19	1.1	7.7	8.0		24.5						
2-F	12/13/19	2.5	7.6	8.0		24.8						
2-Sa	12/14/19	2.0	7.6	7.8		23.7						
3-Su	12/15/19	2.0	7.7	8.0		22.1					<0.1	<0.1
3-M	12/16/19	2.5	7.7	7.9		22.3						
3-T	12/17/19	1.8	7.2	8.1		22.3					<0.1	<0.1
3-W	12/18/19	2.5	8.0	8.2		23.7						
3-Th	12/19/19	2.5	7.4	8.1		24.2						
3-F	12/20/19	2.5	7.6	8.1		28.1						
3-Sa	12/21/19	2.5	7.6	8.1		27.5						
4-Su	12/22/19	2.5	7.7	8.2		26.6						
4-M	12/23/19	1.7	7.7	8.2		25.7					<0.1	<0.1
4-T	12/24/19	2.5	8.1	8.2		24.3						
4-W	12/25/19	2.6	8.1	8.2		22.7						
4-Th	12/26/19	2.6	7.5	8.1		22.8						
4-F	12/27/19	2.6	7.6	8.2		22.6						
4-Sa	12/28/19	2.6	7.5	8.0		24.3						
5-Su	12/29/19	2.6	7.4	8.0		23.5						
5-M	12/30/19	0.8	7.5	8.1		22.9					<0.1	<0.1
5-T	12/31/19	2.5	7.6	8.2		26.9						
Instantaneous Minimum			7.2									
			>= 6.5 (RO)									
Average Monthly		2.2							2	42		
		<= 5.6							<= 8.2	<= 53		
Instantaneous Maximum												
				<= 9.0 (RO)								
Monthly Total					0							
					<= 446							

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



		Halogens, Total Combined, Total Residual Total Residual Milligrams/L (mg/L) 1/Day Grab	pH Standard Units 1/Day Grab	Volume Weekly Million Gallons Continuous Metered/Recorded
Week	Monitoring Point	CWB2	SSWD	SSWD
1-Su	12/1/19	0.05		
1-M	12/2/19	0.03		
1-T	12/3/19	0.02		
1-W	12/4/19	0.03		
1-Th	12/5/19	0.09		
1-F	12/6/19	0.04		
1-Sa	12/7/19	0.03		
2-Su	12/8/19	0.01		
2-M	12/9/19	0.00		
2-T	12/10/19	0.00		
2-W	12/11/19	0.05		
2-Th	12/12/19	0.00		
2-F	12/13/19	0.01		
2-Sa	12/14/19	0.01		
3-Su	12/15/19	0.01		
3-M	12/16/19	0.01		
3-T	12/17/19	0.07		
3-W	12/18/19	0.01		
3-Th	12/19/19	0.00		
3-F	12/20/19	0.00		
3-Sa	12/21/19	0.03		
4-Su	12/22/19	0.00		
4-M	12/23/19	0.06		
4-T	12/24/19	0.03		
4-W	12/25/19	0.03		
4-Th	12/26/19	0.03		
4-F	12/27/19	0.03		
4-Sa	12/28/19	0.01		
5-Su	12/29/19	0.00		
5-M	12/30/19	0.01		
5-T	12/31/19	0.01		
Instantaneous Minimum				
Average Monthly				
Instantaneous Maximum				
Monthly Total				



Outfall: 001 -

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
CWB	All Parameters			Total residual halogenation reported.
CWB	Turbidity (Nephelometric) Measured NTU	12/3/2019	28	Results from a grab sample collected 12/3/2019
CWB	Copper Total Micrograms/L (ug/L)	12/3/2019	19	Results reported from a 24-hr composite sample collected 12/2/2019-12/3/2019
CWB	Chromium Total Micrograms/L (ug/L)	12/3/2019	2.0	Results reported from a 24-hr composite sample collected 12/2/2019-12/3/2019
CWB	Zinc Total Micrograms/L (ug/L)	12/3/2019	42	Results reported from a 24-hr composite sample collected 12/2/2019-12/3/2019
CWB2	All Parameters			Maximum daily total residual halogenation from continuous TRH analyzer reported.
SSWD	All Parameters		C	No discharge from the standby service water ponds



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 12/01/2019 - 12/31/2019

Outfall: 002

Version: 1

Week	Monitoring Point	Volume Monthly Gallons 1/Day - recorded but not reported Calculated
1-Su	12/1/19	16073
1-M	12/2/19	32073
1-T	12/3/19	16073
1-W	12/4/19	31673
1-Th	12/5/19	16073
1-F	12/6/19	16073
1-Sa	12/7/19	32273
2-Su	12/8/19	16073
2-M	12/9/19	16073
2-T	12/10/19	16073
2-W	12/11/19	31673
2-Th	12/12/19	29273
2-F	12/13/19	28873
2-Sa	12/14/19	28973
3-Su	12/15/19	16073
3-M	12/16/19	29173
3-T	12/17/19	16073
3-W	12/18/19	16073
3-Th	12/19/19	41473
3-F	12/20/19	28873
3-Sa	12/21/19	16073
4-Su	12/22/19	16073
4-M	12/23/19	32173
4-T	12/24/19	16073
4-W	12/25/19	16073
4-Th	12/26/19	32573
4-F	12/27/19	32373
4-Sa	12/28/19	32473
5-Su	12/29/19	16073
5-M	12/30/19	16073
5-T	12/31/19	32373
Monthly Total		733463

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge



Permit Number: WA0025151

Permittee: Energy Northwest Columbia Generating Station

Facility County: Benton

Receiving Waterbody:

Monitoring Period: 12/01/2019 - 12/31/2019

Outfall: Intk - Cooling water intake structure

Version: 1

Week	Monitoring Point	Flow Million Gallons/Day Continuous Metered/Recorded
		Intk
1-Su	12/1/19	20.1
1-M	12/2/19	18.4
1-T	12/3/19	19.2
1-W	12/4/19	18.8
1-Th	12/5/19	19.1
1-F	12/6/19	19.8
1-Sa	12/7/19	20.3
2-Su	12/8/19	20.7
2-M	12/9/19	18.7
2-T	12/10/19	19.7
2-W	12/11/19	19.2
2-Th	12/12/19	19.4
2-F	12/13/19	21.2
2-Sa	12/14/19	15.7
3-Su	12/15/19	17.8
3-M	12/16/19	19.5
3-T	12/17/19	19.0
3-W	12/18/19	20.1
3-Th	12/19/19	19.9
3-F	12/20/19	23.0
3-Sa	12/21/19	23.0
4-Su	12/22/19	22.1
4-M	12/23/19	18.0
4-T	12/24/19	19.8
4-W	12/25/19	20.6
4-Th	12/26/19	20.3
4-F	12/27/19	19.8
4-Sa	12/28/19	20.4
5-Su	12/29/19	20.2
5-M	12/30/19	19.1
5-T	12/31/19	22.1

Reporting Codes Used: B - Below Detection Limit/No Detection, C - No Discharge

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Date