Dominion Generation
5000 Dominion Boulevard, Glen Allen, VA 23060

BY U.S. MAIL
RETURNED RECEIPT REQUESTED

January 14, 2015

Ms. Beverly Carver
Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

RE: Dominion - Bremo Power Station VPDES Permit No. VA0004138
Permit Reissuance Application

Dear Ms. Carver:

Dominion is submitting the application for reissuance of the VPDES permit for Dominion's Bremo Power Station (Permit VA0004138).

Should you require additional information, please contact Oula Shehab-Dandan at (804) 273-2697 or Jean Tribull at (434) 842-4104.

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

Enclosures

Bremo POWER STATION

VPDES Permit No. VA004138
Permit Reissuance Application

ATTACHMENTS

EPA Form 3510-1
Topographic Map, Aerial Photo, Property Boundaries and VPDES Outfall Locations Map

EPA Form 3510-2C
One Line Diagram
Addendum to Form 2C

VAR5 Registration Statement for Outfalls 003 and 006
Drainage Map

VPDES Sewage Sludge Form
WWTP Flow Diagram
Sludge Transportation Route
Sludge Acceptance Letter

Request for Waivers from Sampling and Testing Parameters
Sampling Plan Approval

VPDES Permit Reissuance Addendum

Billing Information Form for Annual Maintenance Fee

Public Notice Billing Information

Groundwater Background and Water Quality Report

EPA Form 3510-1
Topographic Map, Aerial Photo, Property Boundaries and VPDES Outfall Locations Map

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch)

For Approved, OMB No. 2040-0086. Approval expires 5-31-92

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: VA 110020673485

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING LIST

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any part is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should be present), provide it in the proper fill-in area below. If the label is complete and correct, you need not complete Items I, III, V, and VI (which must be completed regardless). Complete all items if you have been assigned a RCRA ID number. Refer to the instructions for definitions of terms and for the legal authorization under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit the form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" yes	no	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
B. Is this facility a pulp and paper mill, paperboard mill, or building paper and building board mill which results in a discharge to waters of the U.S. other than those described in A or a silver? (FORM 2B)	X		X
C. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		X	
D. Is or will this facility be a chemical manufacturing plant which results in a discharge to waters of the U.S.? (FORM 2C)		X	
E. Is or will this facility be a mineral mining and processing operation or a phosphate manufacturing plant which results in a discharge to waters of the U.S.? (FORM 2D)		X	
F. Is or will this facility be a mineral mining and processing operation or a silicon manufacturing plant which results in a discharge to waters of the U.S.? (FORM 2E)		X	
G. Is or will this facility be a hydrocarbon refining, petrochemical, or large scale chemical manufacturing plant which results in a discharge to waters of the U.S.? (FORM 2F)		X	
H. Is or will this facility be a petroleum refinery or petroleum storage or transfer facility with a capacity to receive over 50,000 barrels per day of crude oil or petroleum products? (FORM 2G)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 2H)		X	
J. Is this facility a proposed stationary source which is not one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 2H)		X	

III. NAME OF FACILITY

DOMINION-BREMO POWER STATION

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title): Cathy C. Taylor, Director Electric Environmental Services

B. PHONE (area code & no.): 804 273 2929

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: 5000 Dominion Boulevard

B. CITY OR TOWN: Glen Allen

C. STATE: VA

D. ZIP CODE: 23060

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 1038 Bremo Road

B. COUNTY NAME: Fluvanna

C. CITY OR TOWN: Bremo Bluff

D. STATE: VA

E. ZIP CODE: 23022

F. COUNTY CODE: 045

CONTINUED ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST		B. SECOND	
4911	*(specify)* Electric Generation		*(specify)*
C. THIRD		**D. FOURTH**	
	(specify)		*(specify)*

VIII. OPERATOR INFORMATION

A. NAME: Virginia Electric and Power Company

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P *(specify)*

D. PHONE *(area code & no.)*: 804 273 2929

E. STREET OR PO BOX: 5000 Dominion Boulevard

F. CITY OR TOWN	G. STATE	H. ZIP CODE
Glen Allen	VA	23060

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	VA0004138	D. PSD *(Air Emissions from Proposed Sources)*	P
B. UIC *(Underground Injection of Fluids)*	U	E. OTHER *(specify)*	Title V-40199 *(Specify)*
C. RCRA *(Hazardous Wastes)*	R	E. OTHER *(specify)*	*(Specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

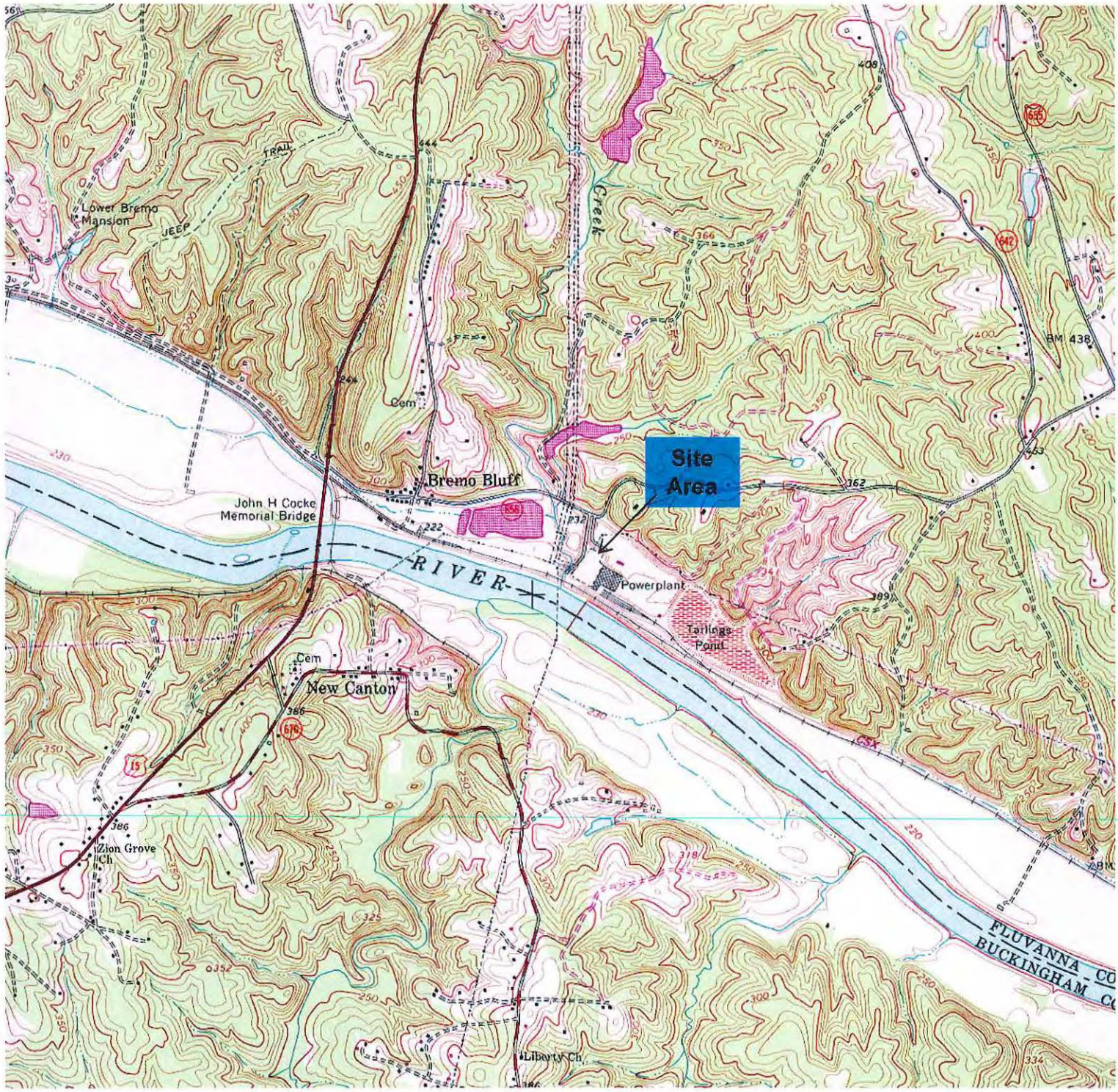
Bremo Power Station generates electricity with steam produced by the combustion of gas.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Edward H. Baine VP, Power Generation Systems Operation	Edward H. Baine	1/12/15

COMMENTS FOR OFFICIAL USE ONLY



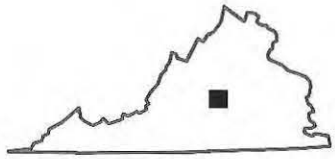
SOURCE:
U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
Arvonia, Virginia (1968)
Photorevised 1987

CONTOUR INTERVAL = 10 FEET

GRAPHIC SCALE (approx.)

2000 0 2000 4000

1" = 2000'

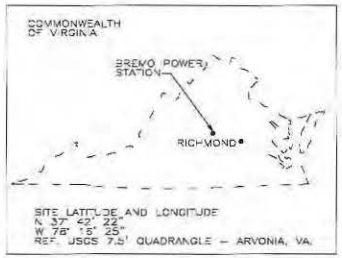


APPROXIMATE QUADRANGLE LOCATION

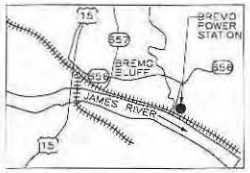
N

PROJECT:			
Bremo Power Station Bremo Bluff, Virginia		FIGURE TITLE: **Site Location Map** Bremo Power Station Bremo Bluff, Virginia	
PROJECT MANAGER:	PROJECT NO.:	DATE: 1/2015	SCALE: AS SHOWN	FIGURE NO.: 1

BREMO POWER STATION- Aerial View



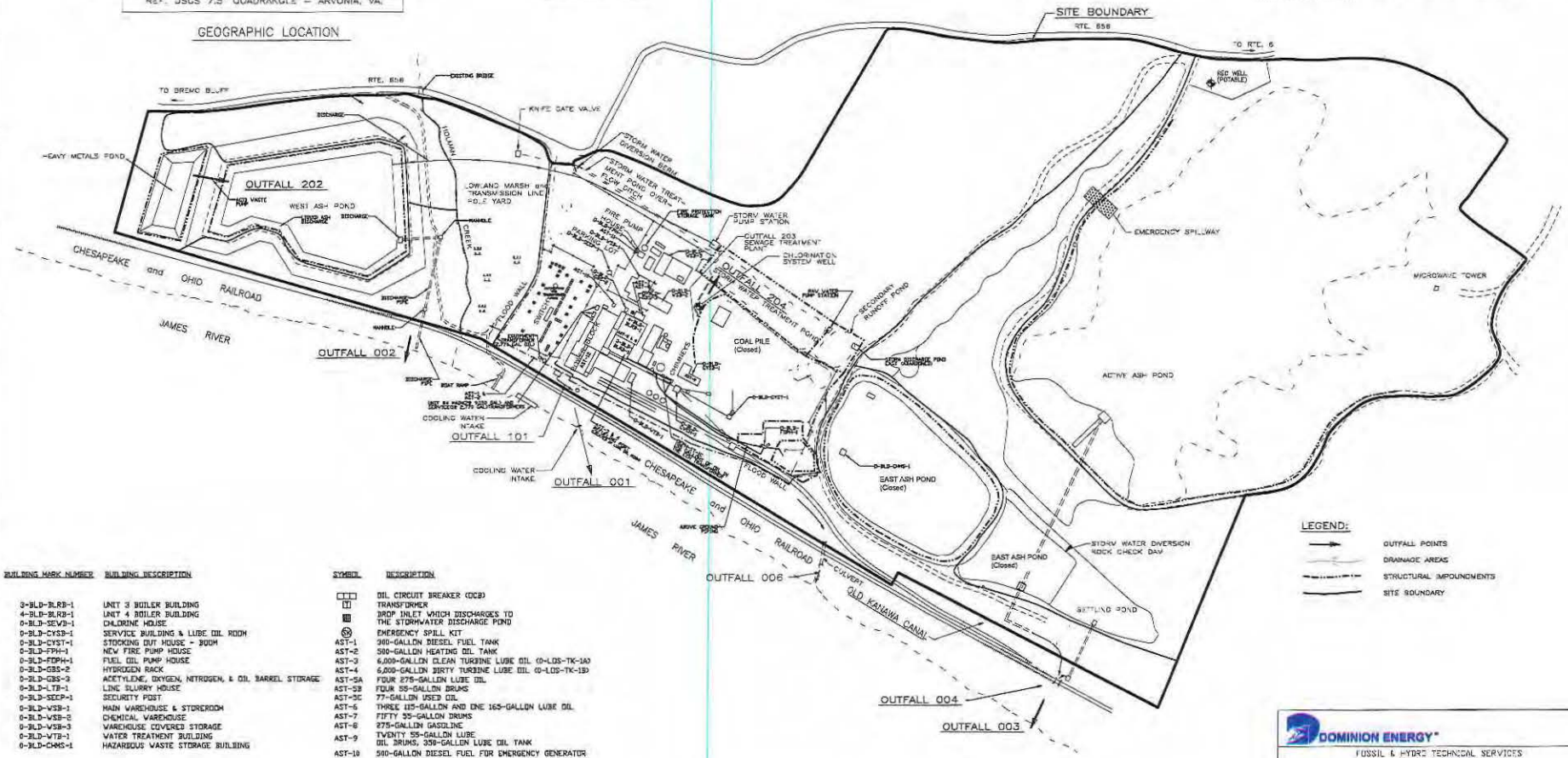
GEOGRAPHIC LOCATION



ACCESS ROUTES

NOTES:

1. THE STORM WATER TREATMENT POND LEVEL IS CONTROLLED. WHEN ACTIVATED BY THE LEVEL CONTROLLER, THE SUMP PUMPS ROUTE WATER TO THE WEST ASH POND WHICH IN TURN DISCHARGES TO THE JAMES RIVER VIA NPDES PERMITTED OUTFALL 002.
2. HERBICIDE SPRAY IS APPLIED, IN SMALL QUANTITIES, TO CONTROL WEED GROWTH.
3. FOR MORE DETAIL OF IN-PLANT FUEL OIL PIPING SEE DRAWINGS:
   BR-0-FL-FO-001
   BR-3-FL-FO-001
   BR-4-FL-FO-001
4. FIRE PROTECTION MEASURES INCLUDE PORTABLE FIRE EXTINGUISHERS AT TRUCK UNLOADING, VEHICLE FUELING, AND OTHER LOCATIONS WHERE FIRE HAZARDS EXIST. PROCEDURES FOR HANDLING A FIRE ARE DETAILED IN THE STATION'S EMERGENCY ACTION PLAN.
5. SEE FIGURE 6 FOR MORE DETAILS ON OIL STORAGE CONTAINERS, INCLUDING THE OIL-FILLED MECHANICAL EQUIPMENT LOCATED IN THE TURBINE BUILDING.



LEGEND:

- OUTFALL POINTS
- DRAINAGE AREAS
- STRUCTURAL IMPOUNDMENTS
- SITE BOUNDARY

BUILDING MARK NUMBER	BUILDING DESCRIPTION
3-BLD-BLRB-1	UNIT 3 BOILER BUILDING
4-BLD-BLRB-1	UNIT 4 BOILER BUILDING
0-BLD-SCVB-1	CHLORINE HOUSE
0-BLD-CYSB-1	SERVICE BUILDING & LUBE OIL ROOM
0-BLD-CYST-1	STOCKING OUT HOUSE - BOOM
0-BLD-FPH-1	NEW FIRE PUMP HOUSE
0-BLD-FDPH-1	FUEL OIL PUMP HOUSE
0-BLD-GBS-2	HYDROGEN RACK
0-BLD-GBS-3	ACETYLENE, OXYGEN, NITROGEN, & OIL BARREL STORAGE
0-BLD-LTB-1	LINE SLURRY HOUSE
0-BLD-SECP-1	SECURITY POST
0-BLD-VSB-1	MAIN WAREHOUSE & STOREROOM
0-BLD-VSB-2	CHEMICAL WAREHOUSE
0-BLD-VSB-3	WAREHOUSE COVERED STORAGE
0-BLD-WTB-1	WATER TREATMENT BUILDING
0-BLD-CHMS-1	HAZARDOUS WASTE STORAGE BUILDING

SYMBOL	DESCRIPTION
	OIL CIRCUIT BREAKER (OCB)
	TRANSFORMER
	DROP INLET WHICH DISCHARGES TO THE STORMWATER DISCHARGE POND
SK	EMERGENCY SPILL KIT
AST-1	300-GALLON DIESEL FUEL TANK
AST-2	500-GALLON HEATING OIL TANK
AST-3	6,000-GALLON CLEAN TURBINE LUBE OIL (0-LOS-TK-1A)
AST-4	6,000-GALLON DIRTY TURBINE LUBE OIL (0-LOS-TK-1B)
AST-5A	FOUR 275-GALLON LUBE OIL
AST-5B	FOUR 55-GALLON DRUMS
AST-5C	77-GALLON USED OIL
AST-6	THREE 115-GALLON AND ONE 165-GALLON LUBE OIL
AST-7	FIFTY 55-GALLON DRUMS
AST-8	275-GALLON GASOLINE
AST-9	TWENTY 55-GALLON LUBE OIL DRUMS, 358-GALLON LUBE OIL TANK
AST-10	500-GALLON DIESEL FUEL FOR EMERGENCY GENERATOR
AST-11	275-GALLON DIESEL FUEL
AST-12	THREE USED OIL ASTs: 940-GALLON, 752-GALLON, & 419-GALLON

DOMINION ENERGY

FOSSIL & HYDRO TECHNICAL SERVICES
RICHMOND, VIRGINIA

SITE PLAN

BREMO POWER STATION

DRAWN SVE | ENGR SUPV | DRAWING NUMBER BR-U-SP-STA-630 | REV. 11
CHKD EVP/RRE | PROJ ENGR
SCALE 1/16 | UNLESS OTHERWISE NOTED | SH 1 OF 1

REVISED PER ENVIRONMENTAL REDLINE | REVISED PER ENVIRONMENTAL REDLINE | REVISED TO REFLECT CHANGES TO BR-0-SP-STA-610 | REVISED PER ENVIRONMENTAL REDLINE | REVISED PER ENVIRONMENTAL REVIEW | REVISED PER ENVIRONMENTAL REDLINE

EPA Form 3510-2C
One Line Diagram
Addendum to Form 2C

Please type or print in the unshaded areas only	EPA ID Number *(Copy from Item 1 of Form 1)* **110020673485**	*Form Approved OMB No. 2040-0086 Approval expires 3-31-98*

Form **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY

APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICUTLRAL OPERATIONS
Consolidated Permits Program

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

Outfall Number *(list)*	Latitude			Longitude			Receiving Water *(name)*
	Deg	Min	Sec	Deg	Min	Sec	
001	*37*	*42*	*27*	*78*	*17*	*16*	*James River*
002	*37*	*42*	*26*	*78*	*17*	*25*	*James River*
004	*37*	*42*	*15*	*78*	*17*	*43*	*James River*

II. Flows, Sources of Pollution, and Treatment Technologies

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment unitslabeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures..

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water,and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. Outfall Number	2. Operations Contributing Flow		3. Treatment		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	***Condenser Cooling Water***	***91.8 MGD***	***Discharge to Surface Water***	***4-A***	*---*
002	***West Ash Pond***	***1.53 MGD***	***Discharge to Surface Water***	***4-A***	***X-X***
	Boiler Blowdow- Units 3&4		***None***	*---*	*---*
	Water Purification System		***Sedimentation***	***1-U***	*---*
	Ash Sluice System/ Stormwater		***Flocculation/ Skimming***	***1-G***	***X-X***
	Floor Drains/Bearing Cooling Water		***None/None***	*---*	*---*
	Closed Coal Pile Area Runoff		***Sedimentation***	***1-U***	
	Sanitary Wastes (see 203 below)		*---*	*---*	*---*
	Metals Cleaning Wastes (see 202 below)		*---*	*---*	*---*
(101)	***Intake Screen Backwash***	***Not Monitored***	***Discharge to Surface Water***	***4-A***	*---*
(202)	***Metals Cleaning Waste Treatment Basin***	***0.93 MGD***	***Mixing; Neutralization***	***1-O***	***2-K***
	Metals Cleaning Waste		***Chemical Precipitation***	***2-C***	*---*
(203)	***Sewage Treatment Plant***	***0.008 MGD***	***Septic tank*** ***Sedimentation*** ***Disinfection***	***3-C*** ***2-H***	 ***2-H***
(204)	***Stormwater Treatment Pond***	***Not Monitored***	***Sedimentation***	***1-U***	*---*
004	***North Ash Disposal Facility***	***0.204 MGD***	***Discharge to Surface Water***	***4-A***	*---*
	Stormwater Runoff		***Sedimentation; Skimming***	***1-U***	***X-X***
	Ash Dredge Water		***Sedimentation; Skimming***	***1-U***	***X-X***

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

( )= Internal Outfall

 CONTINUED ON REVERSE

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☒ **YES** *(complete the following table)* ☐ **NO** *(go to Section III)*

1. OUTFALL NUMBER (list)	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*
202	***Metals Cleaning Pond***	***3 days per event***	***2 to 3 times per year***	***See Part V.***				

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ **YES** *(complete Item III-B)* ☐ **NO** *(go to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ **YES** *(complete Item III-C)* ☒ **NO** *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*
		Not Applicable	

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ **YES** *(complete the following table)* ☒ **NO** *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. No	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ **MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAM IS ATTACHED**

 CONTINUED ON PAGE 3

EPA ID Number *(Copy from Item 1 of Form 1)*
110020673485

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding - Complete one set of tables or each outfall - Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets number V-1 through V-9.

D: Use the space below t list any of the pollutants listed in Tables 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Vanadium	***Fossil Fuels, Ash***		
Strontium	***Fossil Fuels, Ash***		
Uranium	***Fossil Fuels, Ash***		
Zirconium	***Fossil Fuels, Ash***		
Xylene	***Fossil Fuels***		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ **YES** *(list all such pollutants below)* ☒ **NO** *(go to Item VI-B)*

 CONTINUED ON REVERSE

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ **YES** *(identify the test(s) and describe their purpose below)* ☐ **NO** *(go to Section VIII)*

Outfall 002 has been tested for acute and chronic toxicity and Outfall 004 has been tested for acute toxicity as required by the permit. The results of these tests have been provided to VA DEQ in accordance with the schedule specified in the permit (Part I Special Condition.D.1.d and 2.c).

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ **YES** *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ **NO** *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Air Water & Soil	***1941 Reymet Road Richmond VA, VA 23237***	***(804) 658-8295***	***BOD, Pesticides, Organics, Herbicides, Cyanide, Chromium***
Pace Analytical Services Inc.	***1638 Roseytown Road Greensburg, PA 15601***	***(724) 850-5600***	***Radioactivity, Strontium,Tritium***
Coastal Bioanalysts, Inc.	***6400 Enterprise Court Gloucester Point, VA 23061***	***(804) 694-8285***	***Whole Effluent Toxicity***

IX. CERTIFICATION

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 the 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.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
Edward H. Baine ***VP Power GenerationSystem Operations***	***(804) 273-3592***
C. SIGNATURE Edward H. Baine	D. DATE SIGNED 1/12/15

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 001

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE	b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION / (2) MASS	
a. Biological Oxygen Demand *(BOD)*		< 2.0	< 2750.532	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
b. Chemical Oxygen Demand *(COD)*		10.71	14729.10	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
c. Total Organic Carbon *(TOC)*		3.7	5088.48		--		--	1	PPM	LBS/DAY	-- / --	--
d. Total Suspended Solids *(TSS)*		84.3	115934.92		--		--	1	PPM	LBS/DAY	-- / --	--
e. Ammonia *(as N)*		0.03	41.26	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
f. Flow		VALUE 164.9		VALUE --		VALUE 91.8		45	MGD	--	VALUE --	-- / --
g. Temperature (*winter*)		VALUE 2.8		VALUE --		VALUE --		1	°C		VALUE --	-- / --
h. Temperature (*summer*)		VALUE 28.3		VALUE --		VALUE --		1	°C		VALUE --	-- / --
i. pH		7.5	9	--	--			45	STANDARD UNITS			

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	x		< 1.00	< 1375.266	--	--	--	--	1	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	< 0.1	< 137.5266	--	--	< 0.1	< 76.5612	45	PPM	LBS/DAY	--	--	--
c. Color	x		55.4	--	--	--	--	--	1	NTU	--	--	--	--
d. Fecal Coliform		x	--	--	--	--	--	--	--	--	--	--	--	--
e. Fluoride (16984-48-8)	x		0.039	53.635374	--	--	--	--	1	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*	x		0.29	398.82714	--	--	--	--	1	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 001

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION														
g. Nitrogen, Total Organic (*as N*)	x		0.32	440.09	--	--	--	--	1	PPM	LBS/DAY	--	--	--
h. Oil & Grease	x		< 5	< 6876.33	--	--	--	--	1	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)	x		< 0.17	< 233.79522	--	--	< 0.05	< 38.2806	3	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha	x		< 2.43	--	--	--	--	--	1	pCi/L	--	--	--	--
(2) Beta	x		3.17	--	--	--	--	--	1	pCi/L	--	--	--	--
(3) Radium, Total		x	< 0.919	--	--	--	--	--	1	pCi/L	--	--	--	--
(4) Radium 226, Total		x	< 0.563	--	--	--	--	--	1	pCi/L	--	--	--	--
k. Sulfate (*as SO_4*) (14808-79-8)	x		7.24	9956.93	--	--	--	--	1	PPM	LBS/DAY	--	--	--
l. Sulfide (*as S*)		x	< 1.00	< 1375.27	--	--	--	--	1	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)			No Sample	--	--	--	--	--	--	--	--	--	--	--
n. Surfactants		x	< 0.100	< 137.53	--	--	--	--	1	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)	x		0.55	756.40	--	--	--	--	1	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)	x		0.041	56.39	--	--	--	--	1	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)		x	< 0.02	< 27.51	--	--	--	--	1	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)	x		0.011	15.13	--	--	--	--	1	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)	x		1.12	1540.30	--	--	--	--	1	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)	x		2.74	3768.23	--	--	--	--	1	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)		x	< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)			0.11	151.28	--	--	--	--	1	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)	x	x	< 0.005	< 6.88	--	--	--	--	1	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)	x	x	< 0.002	< 2.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)	110020673485	OUTFALL NO. 001

CONTINUED FROM PAGE V-2

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reasoo to believe it will be discharged io concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reasoo to believe that you discharge io concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to he discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2	x	x		< 0.002	< 2.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)	x	x		< 0.0002	< 0.28	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)	x	x		< 0.0003	< 0.41	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)	x	x		0.01	13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)	x	x		0.002	2.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)	x	x		< 0.0002	< 0.28	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)	x	x		< 0.005	< 6.88	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)	x	x		< 0.002	< 2.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4	x	x		< 0.0001	< 0.14	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)	x	x		< 0.0003	< 0.41	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)	x	x		0.013	17.88	--	--	--	--	1	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
15M. Phenols, Total	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 001

1. Pollutant and CAS NO. (If available)	2. MARK 'X' a. Testing Required	b. Believed Present	c. Believed Absent	3. EFFLUENT a. MAXIMUM DAY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. No. OF ANALYSES	4. UNITS (specify if blank) a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVG. VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)	x	x		< 0.005	< 6.88	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 001

1. Pollutant and CAS NO. (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	x	x		< 0.004	< 5.50	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY			
31V. Vinyl Chloride (75-01-4)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)	x	x		< 0.05	< 68.76	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)	x	x		< 0.05	< 68.76	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5	x	x		< 0.02	< 27.51	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 001

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2B. Acenaphtylene (208-96-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)	x	x		< 0.05	< 68.76	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 001

1. Pollutant and CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131 - 11-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 001

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)	x	x		< 0.01	< 13.75	--	--	--	--	1	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)	x	x		< 0.0002	< 0.28	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)	x	x		< 0.0001	< 0.14	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1) 110020673485

OUTFALL NO. 001

CONTINUED FROM PAGE V-8

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)	x	x		< 0.00005	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11131-16-5)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)	x	x		< 0.0005	< 0.69	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)	x	x		< 0.001	< 1.38	--	--	--	--	1	PPM	LBS/DAY	--	--	--

Additional Testing Results on 5/19/2014 sample

OUTFALL NO. 001

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
Tritium			x	< 211	--	--	--	--	--	1	pCi/L		--	--	--
Strontium 90			x	< 0.839	--	--	--	--	--	1	pCi/L		--	--	--
2,4-D			x	< 0.0005	< 0.69	--	--	--	--	1	PPM		--	--	--
Tl (dissolved)			x	< 0.0003	< 0.41	--	--	--	--	1	PPM		--	--	--
Ti (dissolved)			x	< 0.002	< 2.75	--	--	--	--	1	PPM		--	--	--
Sn (dissolved)			x	< 0.005	< 6.88	--	--	--	--	1	PPM		--	--	--
Se (dissolved)			x	< 0.002	< 2.75	--	--	--	--	1	PPM		--	--	--
Sb (dissolved)			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Pb (dissolved)			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Ni (dissolved)			x	< 0.005	< 6.88	--	--	--	--	1	PPM		--	--	--
Mo (dissolved)			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Hg (dissolved)			x	< 0.0002	< 0.28	--	--	--	--	1	PPM		--	--	--
Cu (dissolved)		x		0.006	8.25	--	--	--	--	1	PPM		--	--	--
Cr (dissolved)			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Co (dissolved)			x	< 0.0006	< 0.83	--	--	--	--	1	PPM		--	--	--
Cd (dissolved)			x	< 0.0003	< 0.41	--	--	--	--	1	PPM		--	--	--
Be (dissolved)			x	< 0.0002	< 0.28	--	--	--	--	1	PPM		--	--	--
Ba (dissolved)		x		0.038	52.26	--	--	--	--	1	PPM		--	--	--
As (dissolved)			x	< 0.002	< 2.75	--	--	--	--	1	PPM		--	--	--
Ag (dissolved)			x	< 0.0001	< 0.14	--	--	--	--	1	PPM		--	--	--
Zn (dissolved)			x	< 0.01	< 13.75	--	--	--	--	1	PPM		--	--	--
Mn (dissolved)			x	< 0.02	< 27.51	--	--	--	--	1	PPM		--	--	--
Mg (dissolved)		x		2.6	3575.69	--	--	--	--	1	PPM		--	--	--
Fe (dissolved)		x		0.15	206.29	--	--	--	--	1	PPM		--	--	--
Al (dissolved)			x	< 0.13	< 178.78	--	--	--	--	1	PPM		--	--	--
Total Dissolved Solids		x		70	96268.62	--	--	--	--	1	PPM		--	--	--
Total Hardness as CaCO3		x		37.62	51737.51	--	--	--	--	1	PPM		--	--	--
Chlorides as Cl		x		3.14	4318.34	--	--	--	--	1	PPM		--	--	--
Nitrate as N		x		0.29	398.83	--	--	--	--	1	PPM		--	--	--
Hydrogen Sulfide			x	< 1.00	< 1375.27	--	--	--	--	1	PPM		--	--	--
Chromium +6 as Cr6			x	< 0.005	< 6.88	--	--	--	--	1	PPM		--	--	--
Nonylphenol			x	< 0.05	< 68.76	--	--	--	--	1	PPM		--	--	--
Kepone			x	< 0.0103	< 14.17	--	--	--	--	1	PPM		--	--	--
Methoxychlor			x	< 0.0005	< 0.69	--	--	--	--	1	PPM		--	--	--
Mirex			x	< 0.0005	< 0.69	--	--	--	--	1	PPM		--	--	--
Endrin Aldehyde			x	< 0.00005	< 0.07	--	--	--	--	1	PPM		--	--	--
Chlorpyrifos			x	< 0.002	< 2.75	--	--	--	--	1	PPM		--	--	--
Demeton			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Diazinon			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Guthion			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Malathion			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Parathion			x	< 0.001	< 1.38	--	--	--	--	1	PPM		--	--	--
Silvex			x	< 0.0005	< 0.69	--	--	--	--	1	PPM		--	--	--

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 002

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE	b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION / (2) MASS	
a. Biological Oxygen Demand *(BOD)*		< 2.0	< 71.3904	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
b. Chemical Oxygen Demand *(COD)*		13089	467214.4728	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
c. Total Organic Carbon *(TOC)*		3.4	121.36368	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
d. Total Suspended Solids *(TSS)*		44.1	1574.15832	--	--	11.94	--	49	PPM	LBS/DAY	-- / --	--
e. Ammonia *(as N)*		0.02	0.713904	--	--	--	--	1	PPM	LBS/DAY	-- / --	--
f. Flow		VALUE 4.3		VALUE --		VALUE 1.53		49	MGD	--	VALUE --	-- / --
g. Temperature (*winter*)		VALUE 2.8		VALUE --		VALUE --		1	°C		VALUE --	-- / --
h. Temperature (*summer*)		VALUE 28.3		VALUE --		VALUE --		1	°C		VALUE --	-- / --
i. pH		6.3	8.2	--	--			49	STANDARD UNITS			

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		x	< 1.00	35.6952	--	--	--	--	1	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	--	--	--	--	--	--	--	PPM	LBS/DAY	--	--	--
c. Color	x		21.5	--	--	--	--	--	1	NTU	--	--	--	--
d. Fecal Coliform		x	--	--	--	--	--	--	--	--	--	--	--	--
e. Fluoride (16984-48-8)	x		0.065	2.320188	--	--	--	--	1	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*		x	< 0.01	< 0.356952	--	--	--	--	1	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 002

1. Pollutant and CAS NO. (If available)	2. MARK 'X'		3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION														
g. Nitrogen, Total Organic (as N)	x		0.31	11.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
h. Oil & Grease	x		< 5	< 178.476	--	--	< 5	< 63.801	1	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)	x		0.05	1.78476	--	--	--	--	1	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha		x	< 2.12	--	--	--	--	--	1	pCi/L	--	--	--	--
(2) Beta		x	< 1.82	--	--	--	--	--	1	pCi/L	--	--	--	--
(3) Radium, Total		x	< 0.904	--	--	--	--	--	1	pCi/L	--	--	--	--
(4) Radium 226, Total		x	< 0.777	--	--	--	--	--	1	pCi/L	--	--	--	--
k. Sulfate (as SO_4) (14808-79-8)	x		23.69	845.62	--	--	--	--	1	PPM	LBS/DAY	--	--	--
l. Sulfide (as S)		x	< 1.00	< 35.70	--	--	--	--	1	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)		x	No Sample	--	--	--	--	--	--	--	--	--	--	--
n. Surfactants		x	< 0.100	< 3.57	--	--	--	--	1	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)	x		0.24	< 8.57	--	--	--	--	1	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)	x		0.138	4.93	--	--	--	--	1	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)	x		0.07	2.50	--	--	--	--	1	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)		x	< 0.0006	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)	x		0.24	8.57	--	--	--	--	1	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)	x		5.34	190.61	--	--	--	--	1	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)	x		0.01	0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)	x		0.03	1.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)		x	< 0.005	< 0.18	--	--	--	--	1	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)		x	< 0.002	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)	110020673485	OUTFALL NO. 002

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	x	x		0.001	0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2	x	x		< 0.005	< 0.18	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)	x	x		< 0.0002	< 0.01	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)	x	x		< 0.0003	< 0.01	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)	x	x		0.004	0.14	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)	x	x		< 0.0002	< 0.01	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)	x	x		< 0.005	< 0.18	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)	x	x		< 0.002	< 0.07	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4	x	x		< 0.0001	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)	x	x		< 0.0003	< 0.01	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
15M. Phenols, Total	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 002

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)	x	x		< 0.005	< 0.18	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 002

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)	x	x		< 0.004	< 0.14	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY			
31V. Vinyl Chloride (75-01-4)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)	x	x		< 0.05	< 1.78	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)	x	x		< 0.05	< 1.78	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5	x	x		< 0.02	< 0.71	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 002

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)			c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2)	MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS																
1B. Acenaphthene (83-32-9)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
2B. Acenaphtylene (208-96-8)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)	x	x		< 0.05	< 1.78	--	--		--	--	1	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)	x	x		< 0.00005	< 0.00	--	--		--	--	1	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)	x	x		< 0.01	< 0.36	--	--		--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 002

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131-11-3)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 002

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)	x	x		< 0.01	< 0.36	--	--	--	--	1	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)	x	x		< 0.0002	< 0.01	--	--	--	--	1	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1) 110020673485

OUTFALL NO. 002

CONTINUED FROM PAGE V-8

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)	x	x		< 0.00005	< 0.00	--	--	--	--	1	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11131-16-5)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)	x	x		< 0.0005	< 0.02	--	--	--	--	1	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)	x	x		< 0.001	< 0.04	--	--	--	--	1	PPM	LBS/DAY	--	--	--

Additional Testing Results on 5/19/2014 sample

OUTFALL NO. 002

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
Tritium			x	< 194	--	--	--	--	--	1	pCi/L		--	--	--
Strontium 90			x	< 0.917	--	--	--	--	--	1	pCi/L		--	--	--
2,4-D			x	< 0.0005	< 0.02	--	--	--	--	1	PPM		--	--	--
Tl (dissolved)			x	< 0.0003	< 0.01	--	--	--	--	1	PPM		--	--	--
Ti (dissolved)			x	< 0.002	< 0.07	--	--	--	--	1	PPM		--	--	--
Sn (dissolved)			x	< 0.005	< 0.18	--	--	--	--	1	PPM		--	--	--
Se (dissolved)			x	< 0.002	< 0.07	--	--	--	--	1	PPM		--	--	--
Sb (dissolved)			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Pb (dissolved)			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Ni (dissolved)			x	< 0.005	< 0.18	--	--	--	--	1	PPM		--	--	--
Mo (dissolved)		x		0.012	0.43	--	--	--	--	1	PPM		--	--	--
Hg (dissolved)			x	< 0.0002	< 0.01	--	--	--	--	1	PPM		--	--	--
Cu (dissolved)		x		0.004	0.14	--	--	--	--	1	PPM		--	--	--
Cr (dissolved)			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Co (dissolved)			x	< 0.0006	< 0.02	--	--	--	--	1	PPM		--	--	--
Cd (dissolved)			x	< 0.0003	< 0.01	--	--	--	--	1	PPM		--	--	--
Be (dissolved)			x	< 0.0002	< 0.01	--	--	--	--	1	PPM		--	--	--
Ba (dissolved)		x		0.132	4.71	--	--	--	--	1	PPM		--	--	--
As (dissolved)		x		0.004	0.14	--	--	--	--	1	PPM		--	--	--
Ag (dissolved)			x	< 0.0001	< 0.00	--	--	--	--	1	PPM		--	--	--
Zn (dissolved)			x	< 0.01	< 0.36	--	--	--	--	1	PPM		--	--	--
Mn (dissolved)			x	< 0.02	< 0.71	--	--	--	--	1	PPM		--	--	--
Mg (dissolved)		x		5.35	190.97	--	--	--	--	1	PPM		--	--	--
Fe (dissolved)		x		0.06	2.14	--	--	--	--	1	PPM		--	--	--
Al (dissolved)			x	< 0.13	< 4.64	--	--	--	--	1	PPM		--	--	--
Total Dissolved Solids		x		144	5140.11	--	--	--	--	1	PPM		--	--	--
Total Hardness as CaCO3		x		70.11	2502.59	--	--	--	--	1	PPM		--	--	--
Chlorides as Cl		x		16.27	580.76	--	--	--	--	1	PPM		--	--	--
Nitrate as N			x	< 0.01	< 0.36	--	--	--	--	1	PPM		--	--	--
Hydrogen Sulfide			x	< 1.00	< 35.70	--	--	--	--	1	PPM		--	--	--
Chromium +6 as Cr6			x	< 0.005	< 0.18	--	--	--	--	1	PPM		--	--	--
Nonylphenol			x	< 0.005	< 0.18	--	--	--	--	1	PPM		--	--	--
Kepone			x	< 0.01	< 0.36	--	--	--	--	1	PPM		--	--	--
Methoxychlor			x	< 0.0005	< 0.02	--	--	--	--	1	PPM		--	--	--
Mirex			x	< 0.0005	< 0.02	--	--	--	--	1	PPM		--	--	--
Endrin Aldehyde			x	< 0.00005	< 0.00	--	--	--	--	1	PPM		--	--	--
Chlorpyrifos			x	< 0.002	< 0.07	--	--	--	--	1	PPM		--	--	--
Demeton			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Diazinon			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Guthion			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Malathion			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Parathion			x	< 0.001	< 0.04	--	--	--	--	1	PPM		--	--	--
Silvex			x	< 0.0005	< 0.02	--	--	--	--	1	PPM		--	--	--

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 202

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT								3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if availale*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biological Oxygen Demand *(BOD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chemical Oxygen Demand *(COD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
c. Total Organic Carbon *(TOC)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
d. Total Suspended Solids *(TSS)*		45.40	492.23	--	--	4.57	35.45	9	PPM	LBS/DAY	--	--	--
e. Ammonia *(as N)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Flow		VALUE 1.3		VALUE --		VALUE 0.93		9	MGD	--	VALUE --		-- --
g. Temperature (*winter*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE --		-- --
h. Temperature (*summer*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE --		-- --
i. pH		--	--	--	--			0	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if availale)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	No Sample	--	No dicharge in 2014 (post-conversion)			--	0	PPM	LBS/DAY	--	--	--
c. Color		x	No Sample	--				--	0	NTU	--	--	--	--
d. Fecal Coliform		x	No Sample	--				--	0	COL/100ml	--	--	--	--
e. Fluoride (16984-48-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 202

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION														
g. Nitrogen, Total Organic (*as N*)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
h. Oil & Grease	x		< 5	< 54.21	--	--	< 5	< 38.78	9	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(2) Beta		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(3) Radium, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(4) Radium 226, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
k. Sulfate (*as SO_4*) (14808-79-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
l. Sulfide (*as S*)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
n. Surfacants		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)	x		0.39	4.23	--	--	0.04	0.31	9	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)	110020673485	OUTFALL NO. 202

CONTINUED FROM PAGE V-2

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollotant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)		x		< 0.005	< 0.05	--	--	< 0.005	< 0.04	9	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15M. Phenols, Total			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 202

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 202

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)				Not Required		Not Required		Not Required							
31V. Vinyl Chloride (75-01-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 202

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2B. Acenaphtylen (208-96-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 202

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131 - 11-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 202

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1) **110001888459**

OUTFALL NO. 202

CONTINUED FROM PAGE V-8

1. Pollutant and CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11141-16-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 203

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if availale*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biological Oxygen Demand *(BOD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chemical Oxygen Demand *(COD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
c. Total Organic Carbon *(TOC)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
d. Total Suspended Solids *(TSS)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
e. Ammonia *(as N)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Flow		VALUE 0.07		VALUE --		VALUE 0.008		49	MGD	--	VALUE --		-- --
g. Temperature (*winter*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE --		-- --
h. Temperature (*summer*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE --		-- --
i. pH		--	--	--	--			0	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*If available*)	2.MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if availale)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
c. Color		x	No Sample	--	--	--	--	--	0	NTU	--	--	--	--
d. Fecal Coliform		x	No Sample	--	--	--	--	--	0	COL/100ml	--	--	--	--
e. Fluoride (16984-48-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 203

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAY VALUE (1) CONCENTRATION	a. MAXIMUM DAY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVG. VALUE (2) MASS	d. No. OF ANALYSES	4. UNITS *(specify if blank)* a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVG. VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVG. VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
GC/MS FRACTION														
g. Nitrogen, Total Organic *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
h. Oil & Grease		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(2) Beta		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(3) Radium, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(4) Radium 226, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
k. Sulfate *(as SO_4)* (14808-79-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
l. Sulfide *(as S)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
n. Surfacants		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-2

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15M. Phenols, Total			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 203

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 203

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)				Not Required		Not Required		Not Required							
31V. Vinyl Chloride (75-01-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 203

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2B. Acenaphtylen (208-96-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 203

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131-11-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 203

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1) **110001888459**

OUTFALL NO. 203

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11141-16-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 204

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if availale*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE	b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION / (2) MASS	
a. Biological Oxygen Demand *(BOD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
b. Chemical Oxygen Demand *(COD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
c. Total Organic Carbon *(TOC)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
d. Total Suspended Solids *(TSS)*		8.9	--	--	--	--	--	4	PPM	LBS/DAY	-- / --	--
e. Ammonia *(as N)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
f. Flow		VALUE --		VALUE --		VALUE --		0	MGD	--	VALUE -- / --	-- / --
g. Temperature (*winter*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE -- / --	-- / --
h. Temperature (*summer*)		VALUE No Sample		VALUE --		VALUE --		0	°C		VALUE -- / --	-- / --
i. pH		--	--	--	--			0	STANDARD UNITS			

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if availale)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
c. Color		x	No Sample	--	--	--	--	--	0	NTU	--	--	--	--
d. Fecal Coliform		x	No Sample	--	--	--	--	--	0	COL/100ml	--	--	--	--
e. Fluoride (16984-48-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 204

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'		3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Believed Present	b. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION														
g. Nitrogen, Total Organic *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
h. Oil & Grease	x		< 5	< 54.21	--	--	< 5	< 54.21	9	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(2) Beta		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(3) Radium, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(4) Radium 226, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
k. Sulfate *(as SO_4)* (14808-79-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
l. Sulfide *(as S)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
n. Surfacants		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)	110020673485	OUTFALL NO. 204

CONTINUED FROM PAGE V-2

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15M. Phenols, Total			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 204

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 204

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)				Not Required		Not Required		Not Required							
31V. Vinyl Chloride (75-01-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 204

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2B. Acenaphtylen (208-96-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 204

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131-11-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 204

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-8

EPA I.D. NUMBER (copy from Item 1 of Form 1) **110001888459**

OUTFALL NO. 204

1. Pollutant and CAS NO. *(if available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11141-16-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (copy from Item 1 of Form 1)
110020673485

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO. 004

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. Pollutant	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAY VALUE			b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if availale*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE	b. NO. OF ANALYSES
		(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION / (2) MASS	
a. Biological Oxygen Demand *(BOD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
b. Chemical Oxygen Demand *(COD)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
c. Total Organic Carbon *(TOC)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
d. Total Suspended Solids *(TSS)*		13.00	247.20	--	--	4.64	7.89	16	PPM	LBS/DAY	-- / --	--
e. Ammonia *(as N)*		No Sample	--	--	--	--	--	0	PPM	LBS/DAY	-- / --	--
f. Flow		VALUE 2.28		VALUE --		VALUE 0.204		16	MGD	--	VALUE --	-- --
g. Temperature (*winter*)		VALUE 2.8		VALUE --		VALUE --		0	°C		VALUE --	-- --
h. Temperature (*summer*)		VALUE 28.3		VALUE --		VALUE --		0	°C		VALUE --	-- --
i. pH		7.4	8.3	--	--			16	STANDARD UNITS			

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'		3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (if availale)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
b. Chlorine, Total Residual		x	No Sample	--	See Outfall 002 Results. Outfall 002 discharge is representative of Outfall 004.				0	PPM	LBS/DAY	--	--	--
c. Color		x	No Sample	--					0	NTU	--	--	--	--
d. Fecal Coliform		x	No Sample	--					0	COL/100ml	--	--	--	--
e. Fluoride (16984-48-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
f. Nitrate - Nitrite *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

ITEM V-B CONTINUED

OUTFALL NO. 004

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X' a. Believed Present	2. MARK 'X' b. Believed Absent	3. EFFLUENT a. MAXIMUM DAY VALUE (1) CONCENTRATION	a. MAXIMUM DAY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVG. VALUE (2) MASS	d. No. OF ANALYSES	4. UNITS *(specify if blank)* a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVG. VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVG. VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
GC/MS FRACTION														
g. Nitrogen, Total Organic *(as N)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
h. Oil & Grease	x		< 5	< 95.08	--	--	< 5	< 8.51	9	PPM	LBS/DAY	--	--	--
i. Phosphorus (as P), Total (7723-14-0)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
j. Radioactivity														
(1) Alpha		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(2) Beta		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(3) Radium, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
(4) Radium 226, Total		x	No Sample	--	--	--	--	--	0	pCi/L	--	--	--	--
k. Sulfate *(as SO_4)* (14808-79-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
l. Sulfide *(as S)*		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
m. Sulfite (as SO_3) (14265-45-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
n. Surfacants		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
o. Aluminum, Total (7429-90-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
p. Barium Total (7440-39-3)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
q. Boron, Total (7440-42-8)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
r. Cobalt, Total (7440-48-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
s. Iron, Total (7439-89-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
t. Magnesium, Total (7439-95-4)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
u. Molybdenum, Total (7439-98-7)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
v. Manganese, Total (7439-96-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
w. Tin, Total (7440-31-5)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
x. Titanium, Total (7440-32-6)		x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

EPA I.D. NUMBER (copy from Item 1 of Form 1)	110020673485	OUTFALL NO. 004

CONTINUED FROM PAGE V-2

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

Part C.

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2M. Arsenic, Total (7440-38-2			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3M. Beryllium, Total (7440-41-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4M. Cadmium, Total (7440-43-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5M. Chromium, Total (7440-47-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6M. Copper, Total (7440-50-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7M. Lead, Total (7439-92-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8M. Mercury, Total (7439-97-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9M. Nickel, Total (7440-02-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10M. Selenium, Total (7782-49-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11M. Silver, Total (7440-22-4			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12M. Thallium, Total (7440-28-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13M. Zinc, Total (7440-66-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14M. Cyanide, Total (57-12-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15M. Phenols, Total			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P Dioxin (1764-01-6)			x	DESCRIBE RESULTS No Sample											

CONTINUED FROM PAGE V-3

OUTFALL NO. 004

1. Pollutant and CAS NO. (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2V. Acrylonitrile (107-13-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3V. Benzene (71-43-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4V. Bis (Chloromethyl) Ether (542-88-1)				Not Required		Not Required		Not Required							
5V. Bromoform (75-25-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6V. Carbon Tetrachloride (56-23-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7V. Chlorobenzene (108-90-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8V. Chlorodibromomethane (124-48-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9V. Chloroethane (75-00-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10V. 2-Chloroethylvinyl Ether (110-75-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11V. Chloroform (67-66-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12V. Dichlorobromomethane (75-27-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13V. Dichlorodifluoromethane (75-71-8)				Not Required		Not Required		Not Required							
14V. 1,1-Dichloroethane (75-34-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15V. 1,2-Dichloroethane (107-06-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16V. 1,1-Dichloroethylene (75-35-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17V. 1,2-Dichloropropane (78-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18V. 1,3-Dichloropropylene (542-75-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19V. Ethylbenzene (100-41-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20V. Methyl Bromide (74-83-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21V. Methyl Chloride (74-87-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-4

OUTFALL NO. 004

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (specify if blank)		5. INTAKE (optional)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVG. VALUE (if available)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24V. Tetrachloroethylene (127-18-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25V. Toluene (108-88-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26V. 1,2-Trans-Dichloroethylene (156-60-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27V. 1,1,1-Trichloroethane (71-55-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28V. 1,1,2-Trichloroethane (79-00-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29V Trichloroethylene (79-01-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30V. Trichlorofluoromethane (75-69-4)				Not Required		Not Required		Not Required							
31V. Vinyl Chloride (75-01-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GC/MS FRACTION - ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2A. 2,4-Dichlorophenol (120-83-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3A. 2,4-Dimethylphenol (105-67-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4A. 4,6-Dinitro-OCresol (534-52-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5A. 2,4-Dinitrophenol (51-28-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6A. 2-Nitrophenol (88-75-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7A. 4-Nitrophenol (100-02-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8A. P-Chloro-MCresol (59-50-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9A. Pentachlorophenol (87-86-5			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10A. Phenol (108-95-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11A. 2,4,6-Trichlorophenol (88-05-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-5

OUTFALL NO. 004

1. Pollutant and CAS NO. (If available)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2B. Acenaphtylen (208-96-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3B. Anthracene (120-12-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4B. Benzidine (92-87-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5B. Benzo (a) Anthracene (56-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6B. Benzo (a) Pyrene (50-32-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7B. 3,4-Benzofluoranthene (205-99-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8B. Benzo (ghi) Perylene (191-24-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9B. Benzo (k) Fluoranthene (207-08-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10B. Bis (2-Chloroethoxy) Methane (111-91-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11B. Bis (2-Chloroethyl) Ether (111-44-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12B. Bis (2-Chloroisopropyl) Ether (102-80-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14B. 4-BromophenylPhenyl Ether (101-55-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
15B. Butyl Benzyl Phthalate (85-68-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16B. 2-Chloronaphthalene (91-58-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18B. Chrysene (218-01-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19B. Dibenzo (a,h) Anthracene (53-70-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20B. 1,2-Dichlorobenzene (95-50-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21B. 1,3-Di-chlorobenzene (541-73-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-6

OUTFALL NO. 004

1. Pollutant and CAS NO. (*If available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
22B. 1,4-Dichlorobenzene (106-46-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23B. 3,3-Dichlorobenzidine (91-94-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24B. Diethyl Phthalate (84-66-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25B. Dimethyl Phthalate (131 - 11-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
26B. Di-N-Butyl Phthalate (84-74-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
27B. 2,4-Dinitrotoluene (121-14-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
28B. 2,6-Dinitrotoluene (606-20-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
29B. Di-N-Octyl Phthalate (117-84-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
31B. Fluoranthene (206-44-0)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
32B. Fluorene (86-73-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
33B. Hexachlorobenzene (118-74-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
34B. Hexachlorobutadiene (87-68-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
35B. Hexachlorocyclopentadiene (77-47-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
36B Hexachloroethane (67-72-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
38B. Isophorone (78-59-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
39B. Naphthalene (91-20-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
40B. Nitrobenzene (98-95-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
41B. N-Nitrosodimethylamine (62-75-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
42B. N-Nitrosodi- N-Propylamine (621-64-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

CONTINUED FROM PAGE V-7

OUTFALL NO. 004

1. Pollutant and CAS NO. (*if available*)	2. MARK 'X'			3. EFFLUENT							4. UNITS (*specify if blank*)		5. INTAKE (*optional*)		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVG. VALUE (*if available*)		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)															
43B. N-Nitrosodiphenylamine (86-30-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
44B. Phenanthrene (85-01-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
45B. Pyrene (129-00-0			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
46B. 1,2,4-Trichlorobenzene (120-82-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
GS/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
2P. α-BHC (319-84-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
3P. β-BHC (319-85-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
4P. γ-BHC (58-89-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
5P. δ-BHC (319-86-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
6P. Chlordane (57-74-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
7P. 4,4'-DDT (50-29-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
8P. 4,4'-DDE (72-55-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
9P. 4,4'-DDD (72-54-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
10P. Dieldrin (60-57-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
11P. α-Enosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
12P. β-Endosulfan (115-29-7)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
13P. Endosulfan Sulfate (1031-07-8)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
14P. Endrin (72-20-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
Aldehyde (7421-93-4)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
16P. Heptachlor (76-44-8			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

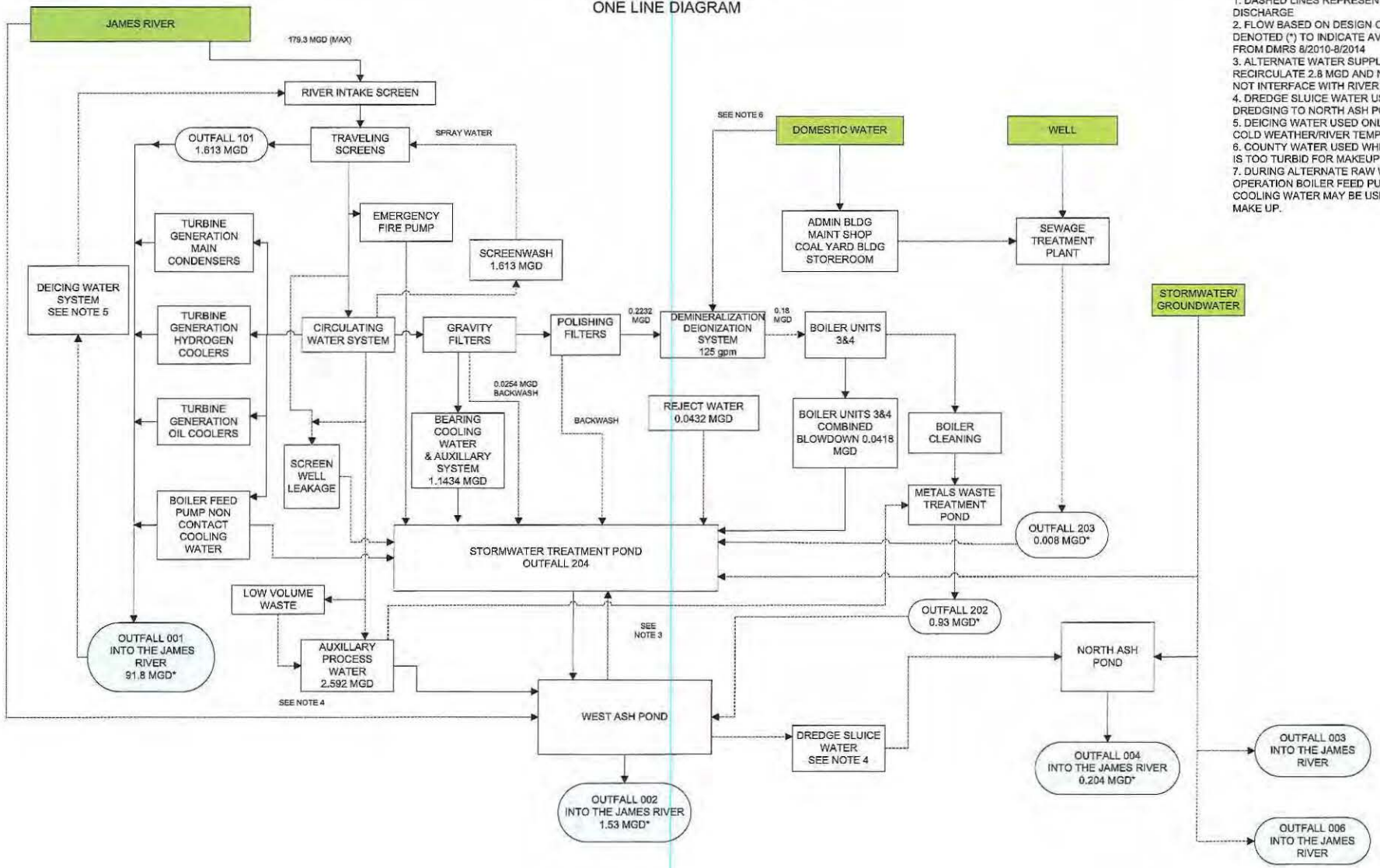
EPA I.D. NUMBER (copy from Item 1 of Form 1) **110001888459**

OUTFALL NO. 004

CONTINUED FROM PAGE V-8

1. Pollutant and CAS NO. *(If available)*	2. MARK 'X'			3. EFFLUENT							4. UNITS *(specify if blank)*		5. INTAKE *(optional)*		
	a. Testing Required	b. Believed Present	c. Believed Absent	a. MAXIMUM DAY VALUE		b. MAXIMUM 30 DAY VALUE *(if available)*		c. LONG TERM AVG. VALUE *(if available)*		d. No. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVG. VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GS/MS FRACTION - PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
18P. PCB-1242 (53469-21-9)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
19P. PCB-1254 (11097-69-1)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
20P. PCB-1221 (11104-28-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
21P. PCB-1232 (11141-16-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
22P. PCB-1248 (12672-29-6)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
23P. PCB-1260 (11096-82-5)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
24P. PCB-1016 (12674-11-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--
25P. Toxaphene (8001-35-2)			x	No Sample	--	--	--	--	--	0	PPM	LBS/DAY	--	--	--

BREMO POWER STATION
STATION WATER FLOW
ONE LINE DIAGRAM



NOTES:
1. DASHED LINES REPRESENT INTERMITTENT DISCHARGE
2. FLOW BASED ON DESIGN CAPACITY UNLESS DENOTED (*) TO INDICATE AVERAGE FLOW FROM DMRS 8/2010-8/2014
3. ALTERNATE WATER SUPPLY WILL RECIRCULATE 2.8 MGD AND NORMALLY WILL NOT INTERFACE WITH RIVER
4. DREDGE SLUICE WATER USED ONLY WHEN DREDGING TO NORTH ASH POND
5. DEICING WATER USED ONLY DURING SEVERE COLD WEATHER/RIVER TEMP BELOW 36 F
6. COUNTY WATER USED WHEN RIVER WATER IS TOO TURBID FOR MAKEUP WATER
7. DURING ALTERNATE RAW WATER SYSTEM OPERATION BOILER FEED PUMP NON CONTACT COOLING WATER MAY BE USED AS SYSTEM MAKE UP.

REVISED 1/2015

DOMINION- BREMO POWER STATION
VA0004138 Permit Reissuance Application
Addendum to Form 2C

Station Description

Bremo Power Station is located on the north bank of the James River in Fluvanna County, Virginia, approximately 50 miles west of Richmond, Virginia. The station is located just downstream of the unincorporated town of Bremo Bluff, Virginia. Bremo Power Station comprises two, gas-fired generating units (Units 3 and 4). The station fuel was converted from coal to gas in May 2014. The coal pile area was capped with a non-permeable membrane in June 2014 and grassed.

Outfalls Description

Outfall 001 – Noncontact Cooling Water

Outfall 001 discharges once-through, non-contact condenser cooling water withdrawn from the James River through two adjacent intake structures, one for each generating unit. The maximum cooling water flow with all circulating water pumps operational is 179.3 mgd. The system is not chemically altered by the addition of biocides, corrosion inhibitors or other cooling water treatment additives as part of station operations. During extremely cold periods of the year (water temperatures below 36°F) approximately 10,000 gpm of the heated effluent is redirected back to the station's intake through Outfall 101 to prevent accumulation of ice on the intake trash rack. Outfall 001 discharges to the James River.

Outfall 002 – West Ash Pond

The West Ash Pond was designed with a capacity of approximately 83.7 million gallons. The surface is approximately 17.0 acres and the pond depth is 17 feet. Wastewater contributions to the pond include low volume wastes (e.g., boiler blowdown, wastewaters from the water demineralization deionization system, floor drains), auxiliary process water, storm water, bearing cooling water, discharge from the metals waste treatment pond, and treated sanitary wastes. The average retention time is 74 days. The pond level is controlled through the addition or removal of stop logs, and the flow on any given day is related to the amount of inflow to the pond, and the pond level above the height of the highest stop log. The pond may be treated with caustic or acid to ensure that the effluent is within the appropriate pH range for discharge. Chemical coagulants may also be added periodically to facilitate the settling of solids. The maximum flow for Outfall 002 is estimated to be 4.3 MGD, which would be expected to occur with a full pond following removal of the top stop log. Accumulated ash in the West Ash Pond is hydraulically dredged and transported via a temporary pipeline to the North Ash Pond on as needed basis. Outfall 002 discharges to the James River.

Outfall 004 – North Ash Pond

The ash dredged from the West Ash Pond is stored in the North Ash Pond, which is designed to store ash for the life of the station. The North Ash Pond discharges to the James River via Outfall 004. Effluent water quality is maintained by providing adequate retention time to settle solids. In addition, the pond may be treated with base or acid to ensure that the effluent is within the appropriate pH range for discharge. Chemical coagulants may also be added periodically to facilitate the settling of solids.

Outfall 003 East Ash Pond Settling Basin (Stormwater)

Outfall 003 drainage area includes the most southeastern portion of the property and includes drainage south of the North Ash Pond and around the eastern & southern portion of the closed East Ash Pond. The estimated drainage area is 27.15 acres and discharges to the James River.

Outfall 006 Old Kanawha Canal (Stormwater)

Outfall 006 drainage area consists of a grassy area of approximately 5.30 acres south of the flood wall but north of the primary railway (old canal). The ash sluice lines and lime slurry line from the lime tank run through this drainage area to the West Ash Pond. Also located in this drainage area is the intake screen return line. Stormwater drains through this grassy area where there are no industrial activities and discharges directly into the James River.

Outfall 101 Intake Screen Backwash

Outfall 101 discharge is a continuous non-process waste stream. No chemicals are used and there is no chemical cleaning. This discharge is neither chlorinated nor chemically altered by the addition of biocides, corrosion inhibitors or other cooling water treatment additives as part of station operations.

Outfall 202 – Metals Pond

The metals pond receives metals cleaning waste generated from the cleaning of metal process equipment. Following treatment, which consists of pH adjustment and settling, the wastewaters are discharged to the West Ash Pond through Outfall 202. The metals pond was designed to hold 5,700,000 gallons of chemical and non-chemical metal cleaning wastewater.

Outfall 203 Sewage Treatment Plant

Outfall 203 consists solely of an intermittent Sewage Treatment Plant (STP) discharge (design flow < 0.1 mgd) to the Stormwater Treatment pond. The STP treats only sanitary wastewater. The wastewater undergoes secondary treatment and disinfection before it is discharged to the Stormwater Treatment Pond. It mixes with stormwater and industrial wastewaters and discharges to the West Ash Pond through internal Outfall 204.

Outfall 204 Stormwater Treatment Pond

Discharge from Outfall 203 and other industrial wastewaters collect in the Stormwater Treatment Pond for settling. The pond then discharges internally through Outfall 204 to the West Ash Pond which provides additional treatment prior to discharge to the James River through Outfall 002.

Chemical Addition

The following is a list of bulk chemicals that are being or may be used within the next five years at the Bremo Power Station. These chemicals have the potential to be discharged through Outfalls 002 and 004.

BREMO POWER STATION CHEMICAL ADDITIONS	
Chemical	**Source/Usage**
Methoxypropylamine	pH control in feedwater and steam cycle
Sodium hydroxide	Boiler pH control, clean preheaters, clean membranes and EDI stacks.
Trisodium phosphate	Boiler treatment
Sodium chloride (salt)	Softening process
Polymers	Water clarification
Calcium hypochlorite tablets	Biocide for gravity filters, water treatment facilities
Hydrated lime	Neutralize metals waste treatment pond
Hydrochloric Acid (Muriatic acid)	Clean Ionics trailer membranes and EDI stacks, boiler and equipment cleaning
#2 Fuel Oil	Fuel
Unleaded gasoline	Fuel
Various grease, oils	Lubrication
Thiourea	Boiler cleaning
Tetra ammonium EDTA	Boiler cleaning
Sodium bromate	Boiler cleaning
Ammonium bicarbonate	Boiler and turbine cleaning
Aqueous ammonia	Boiler and turbine cleaning
Citric acid	Bearing cooling water cleaning, equipment cleaning
Hydrogen peroxide	Clean Ionics trailer membranes
Carbohydrazide	Reducing agent for feedwater oxygen control
Sodium sulfite	Boiler Cleaning
Soda ash (sodium carbonate)	Boiler Cleaning, general pH control
GE Water PAS6090 (Polyamine and Ammonia Blend	pH control in feedwater and steam cycle, corrosion protection
Chemtreat BL8100 (Polyamine and Ammonia Blend) **	pH control in feedwater and steam cycle, corrosion protection

** New chemical. Safety Data Sheet attached.

Chemical / Material Storage

BREMO POWER STATION Chemical / Material Storage		
Storage Tank Type	Storage Capacity	Secondary Containment(Gallons)/Preventative Maintenance
Previous Coal Pile	---	The coal stockpile was removed. The area drains to the Stormwater Treatment Pond (Outfall 204).
Lime Slurry Tank	14,000 gal.	Located on a concrete pad located south-west of the Admin. building. (Outfall 204).
Totes and drums of Various Chemicals • Hydrochloric Acid • Caustic Soda • Hydrogen Peroxide	Range from 55 gallon drums to 330 gallon totes	Stored on concrete pad, under roofed area east of the Power Plant (Outfall 204). The Hydrogen Peroxide is stored in secondary containment beside the Ionics trailer.
Bagged Materials • Salt • Lime Bags	50 lb. bags	Stored in shed East of the Laydown area (Outfall 204).
Laydown Area	Varies	Equipped with concrete pad and drains to storm water treatment pond (Outfall 204).

Whole Effluent Toxicity

Dominion has performed annual whole effluent toxicity (WET) testing of Outfalls 002 and 004 in accordance with permit Special Condition I.D.1and 2. Results of these tests are summarized in the table below.

Outfall	Test Start (mo./yr)	Test Organism	48-hr LC50	NOEC Survival	NOEC Reproduction
002	11/2010	*C dubia*	>100%	100%	65%
002	1/2011	*C dubia*	>100%	100%	60%
002	4/2011	*C dubia*	>100%	100%	100%
002	7/2011	*C dubia*	>100%	100%	60%
002	4/2012	*C. dubia*	>100%	100%	60%
002	5/2013	*C dubia*	>100%	100%	60%
002	3/2014	*C dubia*	>100%	100%	100%
004	4/2011	*C. dubia*	>100%	n/a	n/a
004	4/2012	*C. dubia*	>100%	n/a	n/a
004	5/2013	*C. dubia*	>100%	n/a	n/a
004	3/2014	*C dubia*	>100%	n/a	n/a

Sewage Sludge Management Plan

The sludge from the Bremo Sewage Treatment Plant (STP) contact chamber and septic tanks is pumped on as needed basis by a licensed contractor. The sludge is delivered to the Rivanna Water & Sewer Authority (RWSA) for processing.

BREMO POWER STATION
COOLING WATER INTAKE STRUCTURE

On October 14, 2014, the Environmental Protection Agency finalized regulations (the Rule) for cooling water intake structures at existing facilities pursuant to Section 316(b) of the Clean Water Act. Bremo Power Station is subject to the Rule as an existing facility with a Design Intake Flow greater than 2 MGD. Section 40 CFR 122.21(r) of the Rule establishes the application information required to support entrainment and impingement technology decisions. Section 40 CFR 125.95(a)(2) of the rule allows permittees to request an alternative schedule for submittal of the 316(b) permit application requirements for permits that expire before July 14, 2018. Additionally, for a permit issued before July 14, 2018, Section 40 CFR 125.98(b)(5) of the Rule allows the permitting authority to include permit conditions to ensure that the permittee provide all application information required for the Rule for the subsequent permit.

We have conducted a review of the Rule requirements as they apply to the Bremo Power Station. Based on that review, we will be required to provide the information specified in Section 40 CFR 122.21(r)(2) through (8.). The Actual Intake Flow (AIF) at the Station is approximately 82 MGD based on the three years 2011 through 2013. Because the AIF is less than 125 MGD, the information specified in Section 40 CFR 122.21(r)(9) through (13) is not required. The information items required include:

- r(2): Source Water Physical Data
- r(3): Cooling Water Intake Structure Data
- r(4): Source water baseline biological characterization data
- r(5): Cooling Water System Data
- r(6): Chosen Method(s) of Compliance with Impingement Mortality Standard
- r(7): Entrainment Performance Studies
- r(8): Operational Status

Given that the rule became effective in October 2014, the required information could not be developed in time for application submittal. The information identified above includes numerous time-consuming efforts including:

- Collecting and summarizing information on the intake structure and cooling water system;
- Determination of the area of influence of the intake structure;
- Collecting and summarizing information for the baseline biological characterization;
- Conducting additional field studies for evaluation of impingement technologies, we are planning to conduct one year of impingement monitoring to inform that decision;
- Conducting extensive engineering evaluations of candidate technologies to identify the proposed impingement compliance method and the specific compliance technology compatible with existing operations.

Accordingly, we request an alternative schedule in our reissued permit to specify that all applicable information in Section 40 CFR 122.21(r) be submitted with the subsequent permit reissuance application. Additionally, we are agreeable to providing annual progress reports to DEQ detailing the work completed relative to Section 40 CFR 122.21(r).

BREMO POWER STATION
THERMAL DISCHARGE

The thermal component of the Bremo Power Station (BPS) discharge is regulated in accordance with Virginia's Water Quality Standards (WQS) and conditions to ensure compliance with those standards are included in BPS' current VPDES permit. Specifically, the permit includes a thermal mixing zone, and a limitation on the amount of heat that can be added to the once-through non-contact cooling water discharge Outfall 001. Each of these conditions is discussed below.

1. Heat Rejection Limit

To produce electricity at BPS, a fuel source (formerly coal and now gas) is used in the station's boilers to generate heat, which is then used to produce steam that is used to drive a turbine to produce electricity. Upon exit from the turbine the steam enters a "condenser" where it is condensed back to water by transfer (rejection) of heat to the once-through non-contact cooling water obtained from the James River. The condensate is then pumped back to the boiler for reuse and the non-contact cooling water, with the added heat, is released to the river through Outfall 001. Part I.A.1 of BPS'VPDES permit includes a 1.62×10^9 BTU/hr limit on the amount of heat that can be rejected to Outfall 001.

The amount of heat that is transferred to the cooling water during the generation of electricity is determined by the physics of the operating system. The heat load to the condenser is dependent on the steam flow exhausted to the condenser from the turbine plus flows from various make-up and drains into the condenser. Quantities and heating values of these loads are directly related to the megawatts generated and, to a lesser degree, condenser backpressure. Consequently, the maximum heat rejection coincides with the maximum megawatt output.

Gross unit generating capacity was not affected by the conversion of the BPS generating units from coal to natural gas. Unit 3's maximum capacity remains at 76 MW and Unit 4's maximum capacity remains at 168 MW. Therefore the thermal discharge to the James River at full load did not change as a result of the fuel conversion. The station will most likely continue to operate at maximum capacity during the July- August time period.

2. Thermal Mixing Zone

Virginia's WQS (9VAC25-260-20) allow for the establishment of mixing zones for thermal discharges. As described in Appendix D of the VPDES Permit Program Fact Sheet developed in support of the current BPS VPDES permit, a Thermal Mixing Zone was first designated for the BPS discharge in 1977. The approved Thermal Mixing Zone is defined as "40% of the width of the James River, as measured from the north bank extending from the John H. Cooke Memorial Bridge downstream to Spicer's Island, approximately 5 ½ miles downstream of the cooling water discharge (Outfall 001)." Virginia's thermal water quality criteria must be met at the edge of the established mixing zone.

Dominion has conducted annual thermal mixing zone studies in the James River since the 1970s. These studies, which are required by Special Condition E.9 of the VPDES permit, have been

performed during the month of July when the river is warmest and critical flow conditions are more likely to be occurring. The studies have also been timed to coincide with periods when the plant has been as near full operating conditions as reasonably possible. The purpose of the annual thermal mixing zone study is to demonstrate that the effluent limitations for heat rejection are adequate for maintaining numeric WQC for temperature outside of the approved Thermal Mixing Zone.

The BPS Thermal Mixing Zone was reevaluated by DEQ in 2010 as part of the permit reissuance process. Results of the annual Thermal Mixing Zone studies were reviewed and demonstrated that river water temperatures outside of the mixing zone did not exceed Virginia WQS (3° C above ambient conditions) in studies performed during the term of the previous permit. Based on their evaluation DEQ concluded the following (see VPDES Permit Program Fact Sheet – Appendix D):

a. The monitoring program has been adequate to describe the maximum stream temperature below the plant; the increase in stream temperature from the natural condition; the zone of clear passage (where there is no temperature change) and the length of the mixing zone required to bring the river back to its normal.
b. The effluent limitation for heat rejection appears to be protective of the numeric Water Quality Criteria for temperature in Class III waters when conditions are at or above 7Q10 critical flows.

Thermal Discharge and Thermal Mixing Zone Evaluation: Pre- and Post-Fuel Conversion

During the period from September 2013 to May 2014 the BPS generating units were converted from coal-fired to natural gas-fired. As stated above, gross unit generating capacity was not affected by the conversion of the BPS generating units. Unit 3's maximum capacity remains at 76 MW and Unit 4's maximum capacity remains at 168 MW. In addition, the change in fuels did not affect other aspects of the operating system that would be expected to have an impact on heat rejection. Therefore, the heat rejection and thermal discharge to the James River at full load would not be expected to change following the conversion. This is supported by an evaluation of the results of the Thermal Mixing Zone studies performed during the term of the current VPDES permit.

The Thermal Mixing Zone is monitored in accordance with the permit, once per year during the month of July. The monitoring is conducted during a period when the station is operating as near to full conditions as possible. Eleven transects, A through K, are monitored at 20%, 40%, 60% and 80% of the width of the river (See Figure 1).

Two tables of thermal discharge monitoring data for monitoring years 2011 – 2014 are included below. Table 1 shows the actual surface water temperatures recorded at each river width along each transect (a 4-year average is also presented). Table 2 provides the actual ΔT values at each river width along each transect for each year. Unit loads, river flows and survey durations are also provided in Table 2. The data show that during each survey the units were operating at close to their maximum capacity with little difference before and after the fuel conversion. In addition, at no time did the rise in temperature exceed the 3°C above ambient water quality criteria at the edge of the mixing zone. In addition, relatively similar temperature profiles

occurred within the mixing zone both before and after the fuel conversion. It should be noted that normal fluctuations in annual thermal mixing profiles would be expected based on such things as ambient temperatures and stream flows.

Summary and Recommendations

The Bremo Power Station was converted from coal to natural gas- fired during the period from September 2013 to May 2014. The change in fuel did not affect the maximum generating capacity of either Unit 3 or Unit 4 and, consequently, the thermal discharge to the James River at full load is not expected to change following the conversion.

Monitoring data generated during the annual Thermal Mixing Zone studies performed during the current permit term, before and after the fuel conversion, continue to support DEQ's previous conclusions that: 1) the monitoring program is adequate to describe the maximum stream temperature below the plant; the increase in stream temperature from the natural condition; the zone of clear passage (where there is no temperature change) and the length of the mixing zone required to bring the river back to its normal, and 2) the effluent limitation for heat rejection appears protective of the numeric Water Quality Criteria for temperature in Class III waters when conditions are at or above 7Q10 critical flows.

In light of the above, Dominion requests the continuation of the existing heat rejection limit and associated thermal mixing zone.

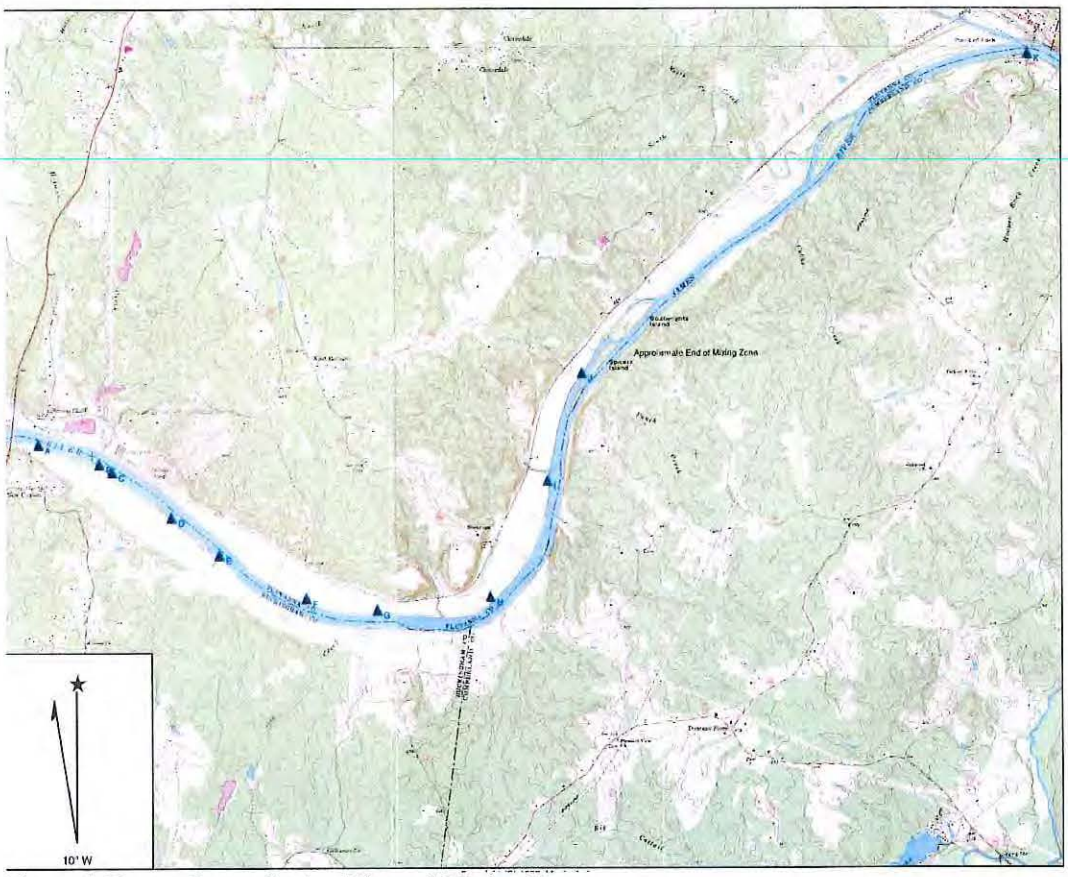


Figure 1. Bremo Power Station Thermal Mixing Zone

Table 1. Thermal Discharge Monitoring Data

Station #	1	2	3	4	
Width of River	**20%**	**40%**	**60%**	**80%**	
	31.9	32.2	32.2	32.4	2011
	31.2	31.6	31.3	30.8	2012
	27.8	28.0	28.1	27.7	2013
A	31.3	31.6	31.8	31.2	2014
	30.6	**30.9**	**30.9**	**30.5**	**Average for Years**
	32.2	32.4	32.5	32.5	
	31.6	31.6	31.6	31.3	
	27.7	28.0	28.2	28.0	
B	31.3	31.5	31.6	31.4	
	30.7	**30.9**	**31.0**	**30.8**	
	32.1	30.6	30.6	30.4	
	30.0	30.0	30.0	29.8	
	27.3	27.5	27.5	27.5	
C	33.6	30.3	30.4	30.0	
	30.8	**29.6**	**29.6**	**29.4**	
	39.3	30.8	30.7	30.6	
	36.5	30.6	30.1	29.9	
	27.9	27.7	27.7	27.5	
D	34.7	30.4	30.4	30.1	
	34.6	**29.9**	**29.7**	**29.5**	
	35.5	31.2	31.1	31.1	
	35.8	30.8	30.5	30.3	
	29.9	27.9	27.9	27.9	
E	32.7	30.7	30.8	30.3	
	33.5	**30.2**	**30.1**	**29.9**	
	34.8	31.8	31.7	31.5	
	32.5	31.0	30.9	30.7	
	28.8	28.0	28.1	27.8	
F	33.3	31.0	30.9	30.6	
	32.4	**30.5**	**30.4**	**30.2**	
	35.3	31.9	31.9	31.7	
	34.8	31.6	31.1	31.0	
	29.7	29.2	28.1	27.9	
G	34.2	31.6	31.0	30.5	
	33.5	**31.1**	**30.5**	**30.3**	

Station #	1	2	3	4
Width of River	**20%**	**40%**	**60%**	**80%**
	35.6	33.6	32.0	31.5
	34.7	32.3	31.1	30.9
	29.1	28.2	28.1	27.6
H	33.9	31.7	31.2	30.5
	33.3	**31.5**	**30.6**	**30.1**
	34.6	33.5	32.7	32.1
	34.2	31.9	31.4	31.2
	28.9	28.3	28.1	28.0
I	33.5	31.6	31.2	31.0
	32.8	**31.3**	**30.9**	**30.6**
	35.0	33.8	33.2	32.5
	34.1	32.8	31.9	31.5
	29.4	28.4	28.3	28.2
J	33.2	33.2	31.3	31.1
	32.9	**32.1**	**31.2**	**30.8**
	29.0	31.9	32.3	32.1
	32.1	31.4	30.7	30.3
	28.3	28.0	27.9	27.6
K	30.5	31.4	30.9	30.2
	30.0	**30.7**	**30.5**	**30.1**

Table 2. Delta T Values at Each Transect& Station for 2011-2014.

Date	USGS Gauge Scottsville, VA	Duration of Survey	Time	Net Unit Load (MWHr)[A]		Stream Width	Delta T Determined for Each Sampling Location at Each Transect[B]								
				Unit 3	Unit 4		C	D	E	F	G	H	I	J	K
7/12/2011	2100 cfs[C]	1145 - 1430 hours	1100	76	152	20%	0	7.2	3.4	2.7	3.2	3.5	2.5	2.9	-3.1
			1200	75	150	40%	1.7	1.5	1.1	0.5	0.4	1.3	1.2	1.5	0.4
			1300	71	151	60%	1.8	1.7	1.3	0.7	0.5	0.4	0.3	0.8	0.1
			1400	63	149	80%	1.9	1.7	1.2	0.8	0.6	0.8	0.2	0.2	2.3
7/17/2012	1200 cfs	1150 - 1420 hours	1100	53	134	20%	1.4	5.1	4.4	1.1	3.4	3.3	2.8	2.7	0.7
			1200	56	126	40%	1.6	1	0.8	0.6	0	0.7	0.3	1.2	0.2
			1300	60	128	60%	0.9	1.4	1	0.6	0.4	0.4	0.1	0.4	0.8
			1400	66	147	80%	0.7	1.2	0.8	0.4	0.1	0.2	0.1	0.4	0.8
7/18/2013	6000 cfs	1215 - 1420 hours	1100	74	162	20%	0.5	0.1	2.1	1	1.9	1.3	1.1	1.6	0.5
			1200	75	163	40%	0.5	0.3	0.1	0	0.2	0.2	0.3	0.4	0
			1300	74	164	60%	0.7	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.3
			1400	75	154	80%	0.4	0.4	0	0.1	0	0.3	0.1	0.3	0.3
7/2/2014	1920 cfs	1255 - 1500 hours	1200	69	166	20%	2.3	3.4	1.4	2.0	2.9	2.6	2.2	1.9	-0.8
			1300	70	116	40%	-1.3	-1.2	-0.9	-0.6	0.1	0.1	0.1	0.7	-0.2
			1400	70	72	60%	-1.3	-1.3	-0.9	-0.8	-0.7	-0.5	-0.6	-0.4	-0.9
			1500	70	72	80%	-1.3	-1.2	-1.0	-0.7	-0.8	-0.8	-0.3	-0.2	-1.1

A = Net unit loads provided were recorded for the times given during each survey. The times presented; however, do not necessarily correspond to the times at which the individual measurements were made at each transect location.

B = Delta T presented is the difference between temperature measured at the given Transect and Stream Width minus the Ambient Temperature measured at Transects A and B, which are located in the James River above the Bremo Power Station thermal discharge

C = Scottsville data not available, used data for Cartersville gauge

[ ] = Bremo Power Station Thermal Mixing Zone

SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	FlexPro BL8100
Product Use:	Boiler Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424–9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648–4579
Date of MSDS:	January 5, 2015
Revision Date:	January 5, 2015
Revision Number:	15010501AN

Section 2. Hazard(s) Identification

Signal Word:	**DANGER**
GHS Classification(s):	Skin corrosion/irritation – Category 1b Eye damage/irritation – Category 1 Acute Toxicity Dermal – Category 4 Acute Toxicity Inhalation – Category 4 Acute Toxicity Oral – Category 4
Hazard Statement(s):	Causes severe skin burns and eye damage. Causes serious eye damage. Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed.
Precautionary Statement(s):	Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Use only outdoors or in a well–ventilated area.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt.%
Ethanolamine	141-43-5	10 – 30
Cyclohexylamine	108-91-8	1 – 10
(Z)-N-9-octadecenylpropane-1,3-diamine	7173-62-8	< 5

Comments N/A

Section 4. First Aid Measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

Skin: Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re-use. Immediately call a poison center or doctor/physician.

Ingestion: DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.

Notes to Physician: N/A

Additional First Aid Remarks: N/A

Section 5. Fire Fighting Measures

Flammability of the Product: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable to surrounding fire.

Specific Hazards Arising from the Chemical: Product may emit toxic gases or fumes under fire conditions.

Protective Equipment: If product is involved in a fire, wear full protective clothing including a positive–pressure, NIOSH approved, self–contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions: Use appropriate Personal Protective Equipment (PPE).

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

Methods for Cleaning up: Contain and recover liquid when possible. Flush spill area with water spray.

Other Statements: If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1–800–424–8802.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations.
For Industrial use only.
Do not store below 32°F.
Do not store above 104°F.
Do not freeze. Store above Freeze Point. If freezes, then mechanical mixing is required.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Ethanolamine	ACGIH TLV	15 mg/m³ STEL
	NIOSH	15 mg/m³ STEL
	OSHA PEL	6 mg/m³ TWA

Component	Source	Exposure Limits
Cyclohexylamine	ACGIH TLV	41 mg/m³ TWA
(Z)–N–9–octadecenylpropane–1,3–diamine	N/E	N/E

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full–face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick–drench facilities in work area. Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.001 @ 20°C
pH:	11.3 @ 20°C, 1.0%
Freezing Point:	10°F
Flash Point:	N/A
Odor:	Strong
Melting Point:	N/A
Boiling Point:	N/D
Solubility in Water:	Complete
Evaporation Rate:	N/D
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	8.35 LB/GA
Vapor Pressure:	N/D
% VOC:	N/D
Odor Threshold	N/D
n–octanol Partition Coefficient	N/D
Decomposition Temperature	N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong oxidizers, Strong acids.

Hazardous Decomposition Products: Oxides of carbon, Oxides of nitrogen.

Possibility of Hazardous Reactions: None known.

Section 11. Toxicological Information

Chemical Name	Exposure	Type of Effect	Concentration	Species
Cyclohexylamine	Oral	LD50	156 MG/KG	Rat
	Dermal	LD50	277 MG/KG	Rabbit

Carcinogenicity Category

Component	Source	Code	Brief Description
Ethanolamine	N/E	N/E	N/E
Cyclohexylamine	ACGIH	TLV-A4	Not classifiable as a human carcinogen.
(Z)-N-9-octadecenylpropane-1,3-diamine	N/E	N/E	N/E

Comments: None.

Section 12. Ecological Information

Species	Duration	Type of Effect	Test Results
Fish	96h	LC50	10 mg/l
Daphnia	48h	EC50	10 – 100 mg/l
Algae	72h	EC50	1 – 10 mg/l
Bacterial toxicity	N/A	NOEC	>100 mg/l

Comments: Not tested.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Controlling Regulation	Proper Shipping Name:	Technical Name:	Hazard Class:	UN/NA#:	Packing Group:
DOT	ETHANOLAMINE SOLUTION	N/A	Corrosive	UN2491	PGIII

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard: No
Reactive Hazard: No
Release of Pressure: No
Acute Health Hazard: Yes
Chronic Health Hazard: No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Ethanolamine	N/A	N/A	N/A
Cyclohexylamine	N/A	10000	10000
(Z)-N-9-octadecenylpropane-1,3-diamine	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Ethanolamine	CA, ID, IL, MA, ME, MN, PA, WA, WI
Cyclohexylamine	MA, MN, NJ, NY, PA, WA
(Z)-N-9-octadecenylpropane-1,3-diamine	None.

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16. Other Information

HMIS Hazard Rating

Health: 3
Flammability: 1
Physical Hazard: 0
PPE: X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha-numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end-user must determine if the code is appropriate for their use.

NSF: N/A

FDA/USDA/GRAS: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

VAR5 Registration Statement for Outfalls 003 and 006
Drainage Map

VPDES General Permit for Industrial Activity Stormwater Discharges (VAR05)
Registration Statement

(Please Type or Print All Information)

1a. Facility Owner

Name: Virginia Electric and Power Company

Mailing Address: 5000 Dominion Boulevard

City: Glen Allen State: VA Zip: 23060 Phone: (804) 273-2697

E-Mail Address (where available): N/A

1b. Operator Applying For Permit Coverage (if different than "1a")

Name: (Same as above)

Mailing Address:

City: State: Zip: Phone:

E-Mail Address (where available):

2. Facility Information

Facility Name: Dominion-Bremo Power Station

Street Address: 1038 Bremo Road

City: Bremo Bluff State: VA Zip: 23022 FAX Number: (434) 842-4137

County Name: Fluvanna County

Contact Name: Jean Tribull Phone: (434) 842-4104

E-Mail Address (where available): jean.tribull@dom.com

3. Nature of business (provide a brief description): Steam electric power generating facility

4. Names of the receiving waters for all industrial activity discharges: James River

5. Are any of the discharges through a municipal separate storm sewer system (MS4)? Yes ☐ No ☒

If "yes", provide the name of the MS4 owner: N/A

Note: Permit Special Condition 13 requires the permittee to notify the MS4 owner in writing of the existence of the discharge within 30 days of coverage under this permit. The notification must include the following information: the name of the facility, a contact person and phone number, the location of the discharge, the nature of the discharge, and the facility's VPDES general permit registration number. DEQ must be copied with the notification.

6. Permit Numbers for any existing VPDES permits assigned to the facility: VA0004138

7. For a new facility, a facility previously covered by an expiring individual permit, or an existing facility not currently covered by a VPDES permit, has a SWPPP been prepared? Yes ☒ No ☐

8. Identify up to four 4-digit Standard Industrial Classification (SIC) Codes or 2-letter Industrial Activity Codes that best represent the principal products or services rendered by the facility and major co-located activities.

*The 2-letter Industrial Activity Codes are: **HZ** - hazardous waste treatment, storage, or disposal facilities; **LF** - landfills/disposal facilities that receive or have received any industrial wastes; **SE** - steam electric power generating facilities; or, **TW** - treatment works treating domestic sewage.*

4-Digit SIC Codes or 2-letter Industrial Activity Codes: SE -- -- --

9. **Attach a list identifying all the applicable industrial sectors that cover the stormwater discharges from the industrial activities at the facility, and from major co-located industrial activities that will be covered under this permit (see instructions). Also identify the stormwater outfalls associated with each identified sector.**

In addition to attaching the list, answer the questions below as they apply to the facility's discharges:

a. For landfills (Sector L), indicate the type of landfill: N/A

b. For timber products operations (Sector A), indicate which outfalls (if any) receive discharges from wet decking areas: N/A

c. For all facilities, indicate which outfalls (if any) receive discharges from coal storage piles: N/A

d. For asphalt paving and roofing materials manufacturers (Sector D), indicate which outfalls (if any) receive discharges from asphalt paving and roofing emulsions production areas: --

e. For cement manufacturing facilities (Sector E), indicate which outfalls (if any) receive discharges from material storage piles: N/A

f. For (Sector N) scrap recycling/waste recycling facilities that receive only source-separated recyclable materials, indicate which outfalls (if any) receive discharges from this activity. Also list the metals that are received (if any). N/A

g. For primary airports (Sector S), list the average deicing season, and indicate which outfalls (if any) receive discharges from deicing of non-propeller aircraft, and the annual average departures of non-propeller aircraft. N/A

10. **Facility area information. List the total area of the facility (in acres), the area of industrial activity at the facility (in acres), the total impervious area of the industrial activity at the facility (in acres), and the area (in acres) draining to each industrial activity outfall at the facility.**

Total Acreage= 296.59 acres Outfall 003 drainage area=27.15 acres Outfall 006 drainage area=5.30 acres

11. **Attach the following maps to the registration statement:**

a. General location map. A USGS 7.5 minute topographic map, or other equivalent computer generated map, with sufficient resolution to clearly show the location of the facility and the surrounding locale; and

b. Site map. A map showing the property boundaries, the location of all industrial activity areas, all stormwater outfalls, and all water bodies receiving stormwater discharges from the site.

12. **Is this a new facility that commenced construction after June 30, 2014, located in the Chesapeake Bay watershed, and applying for first time general permit coverage? (see instructions) Yes ☐ No ☒**

If "yes", attach the required documentation (see instructions).

13. **Certification:** "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 the 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."

Print Name Edward H. Baine Title: VP, Power Generation Systems Operations

Signature: Edward H. Baine Date: 1/12/15

14. **Would you like your permit sent to you electronically? Yes ☐ No ☒**

If "Yes", please list the email address to send it to: N/A

For Department of Environmental Quality Use Only

Accepted/Not Accepted by: _____ Date: _____

Basin _____ Stream Class _____ Section _____ Special Standards _____

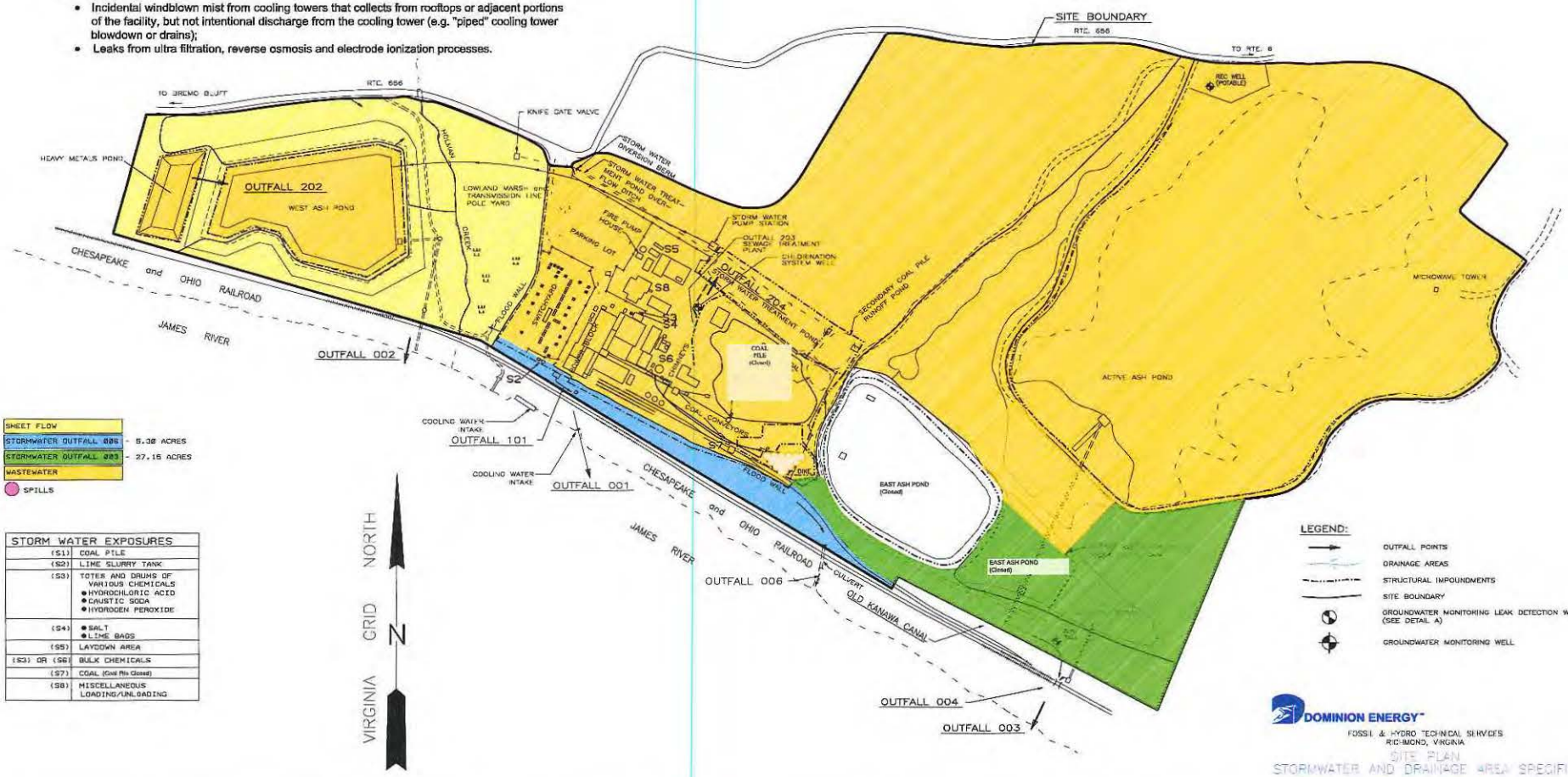
Antidegradation Checked? Y☐ N☐ Impaired Waters Discharge? Y☐ N☐ TMDL approved? Y☐ N☐

The following Allowable Non-Storm Water discharges may occur in the Storm Water Outfall drainage areas. With the exception of uncontaminated ground water or spring water, none of the following Allowable Non-Stormwater Discharges are expected to be discharged routinely through the permitted Stormwater Outfalls.

- Discharge from fire fighting activities;
- Fire Hydrant Flushing;
- Potable water including water line flushings;
- Uncontaminated air conditioning or compressor condensate;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
- Pavement wash water where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled materials has been removed);
- Routine external building wash down which does not use detergents;
- Uncontaminated ground water or spring water;
- Foundation or footing where flows are not contaminated with process materials such as solvents;
- Incidental windblown mist from cooling towers that collects from rooftops or adjacent portions of the facility, but not intentional discharge from the cooling tower (e.g. "piped" cooling tower blowdown or drains);
- Leaks from ultra filtration, reverse osmosis and electrode ionization processes.

NOTES:

1. THE STORM WATER TREATMENT POND LEVEL IS CONTROLLED. WHEN ACTIVATED BY THE LEVEL CONTROLLER, THE SUMP PUMPS ROUTE WATER TO THE WEST ASH POND WHICH IN TURN DISCHARGES TO THE JAMES RIVER VIA NPDES PERMITTED OUTFALL 002.
2. HERBICIDE SPRAY IS APPLIED, IN SMALL QUANTITIES, TO CONTROL WEED GROWTH.
3. FOR MORE DETAIL OF IN-PLANT FUEL OIL PIPING SEE DRAWINGS:
   BR-0-FL-FO-001
   BR-3-FL-FO-001
   BR-4-FL-FO-001



STORM WATER EXPOSURES	
(S1)	COAL PILE
(S2)	LIME SLURRY TANK
(S3)	TOTES AND DRUMS OF VARIOUS CHEMICALS ● HYDROCHLORIC ACID ● CAUSTIC SODA ● HYDROGEN PEROXIDE
(S4)	● SALT ● LIME BAGS
(S5)	LAYDOWN AREA
(S3) OR (S6)	BULK CHEMICALS
(S7)	COAL (Coal Pile Closed)
(S8)	MISCELLANEOUS LOADING/UNLOADING

DOMINION ENERGY™
FOSSIL & HYDRO TECHNICAL SERVICES
RICHMOND, VIRGINIA

SITE PLAN
STORMWATER AND DRAINAGE AREA SPECIFIC
BREMO POWER STATION

DSGN ——— DSGN SUPV RWM
DRWN RTC CHKD RAW
CHKD RAW PROJ ENGR ———
DISP. ENGR ———
DRAWING NUMBER BR-0-SP-STA-622 REV 2
SCALE: N/A
UNLESS OTHERWISE NOTED
SH 1 OF 1

VPDES Sewage Sludge Form
WWTP Flow Diagram
Sludge Transportation Route
Sludge Acceptance Letter

VPDES Sewage Sludge Permit Application for Permit Reissuance

Instructions

WHO MUST SUBMIT THE APPLICATION - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.
Part 1 is general information to be provided by all facilities.
Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.
Part 3 must be completed by all facilities that land apply Class B biosolids.

Part 1 – Sludge Disposal Management (To be completed by all facilities)

Facility Name: Bremo Power Station **VPDES Permit No:** VA0004138

1. **Shipment Off Site for Treatment or Blending**

Is sewage sludge from your facility sent to another facility that provides treatment or blending? ☑ Yes ☐ No

If you send sewage sludge to more than one facility, attach additional sheets as necessary.

Shipment off site is: ☑ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Receiving Facility Name Rivanna Water & Sewer Authority- Moores Creek WWTF

b. Receiving Facility VPDES Permit No. VA0025518

c. Include an acceptance letter from the Receiving Facility.

d. Receiving Facility's ultimate disposal method for sewage sludge Sewage sludge is dewatered and hauled offsite to the Environmental Solutions, Inc. compost facility for further treatment and beneficial use and/or hauled to the Waste Management Amelia Landfill for disposal.

2. **Disposal in a Municipal Solid Waste Landfill**

Is sewage sludge from your facility placed in a municipal solid waste landfill? ☐ Yes ☑ No

If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

Landfilling is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Landfill Name --

b. Landfill Permit No. --

c. Include an acceptance letter from the landfill.

3. **Incineration**

Is sewage sludge from your facility fired in a sewage sludge incinerator? ☐ Yes ☑ No

Incineration is: ☐ The primary method of sludge disposal ☐ A back up method of sludge disposal

a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ☑ No

If yes, provide the Air Registration No. --

If no, complete items b - d for each incinerator that you do not own or operate.

b. Facility Name --

c. Air Registration No. --

d. Include an acceptance letter from the Incinerator.

4. **Class A Biosolids**

Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2. ☐ Yes ☑ No

Are Class A biosolids from your facility land applied in bulk? ☐ Yes ☑ No

Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the VDACS certification number? -- ☐ Yes ☑ No

5. **Class B Biosolids**

Do you produce Class B biosolids? If yes, complete Part 2. ☐ *Yes* ☑ *No*

Are Class B biosolids from your facility land applied land applied under the authorization of this VPDES Permit? If yes, complete Part 3. ☐ *Yes* ☑ *No*

6. **Land Application Under a Separate Permit**

Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit? ☐ Yes ☑ No

Biosolids are land applied under the authorization of a ☐ VPA permit ☐ Another VPDES Permit ☐ Out of State

Complete items a - c for each VPA permit authorized to land apply biosolids from your facility.

a. Permittee Name

--

--

b. Permit No.

--

--

c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice and necessary information" requirement of 9VAC25-31-530 F.

VPDES Sewage Sludge Permit Application for Permit Reissuance

Not Applicable

Part 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land applied.)

1. Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance? ☐ Yes ☐ No
2. Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9VAC25-31-710 A 3 through A 8 or Class B pathogen requirements in 9VAC25-31-710 B 1 through B 4? ☐ Yes ☐ No

   Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____
3. Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10? ☐ Yes ☐ No

   Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions requirements and provide the data that demonstrate compliance with the applicable alternative. _____
4. Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540 B? ☐ Yes ☐ No
5. Has data from the most recent 3 samples for pH (S.U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as $CaCO_3$ (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart. ☐ Yes ☐ No

   If no, provide the data with this application.

Part 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosolids.)

Not Applicable

1. Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with 9VAC25-31-100 P 9.
2. For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Application Agreement - Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).
3. Are any new land application fields proposed at this reissuance? ☐ Yes ☐ No

   If yes, contact the DEQ Regional Office for additional submittal requirements.
4. For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate. ☐ Yes ☐ No

   If no, contact the DEQ Regional Office for additional submittal requirements.
5. Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information? ☐ Yes ☐ No
   a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosolids.
   b. A description of the transport vehicles to be used.
   c. Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cleaning), field reclamation, and emergency notification and cleanup measures.
   d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution and appropriate loading rates.
   e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slope restrictions, operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site restrictions.
   f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES Permit Regulation (9VAC25-31-420 through 720).

Certification

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 the information, the information 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.

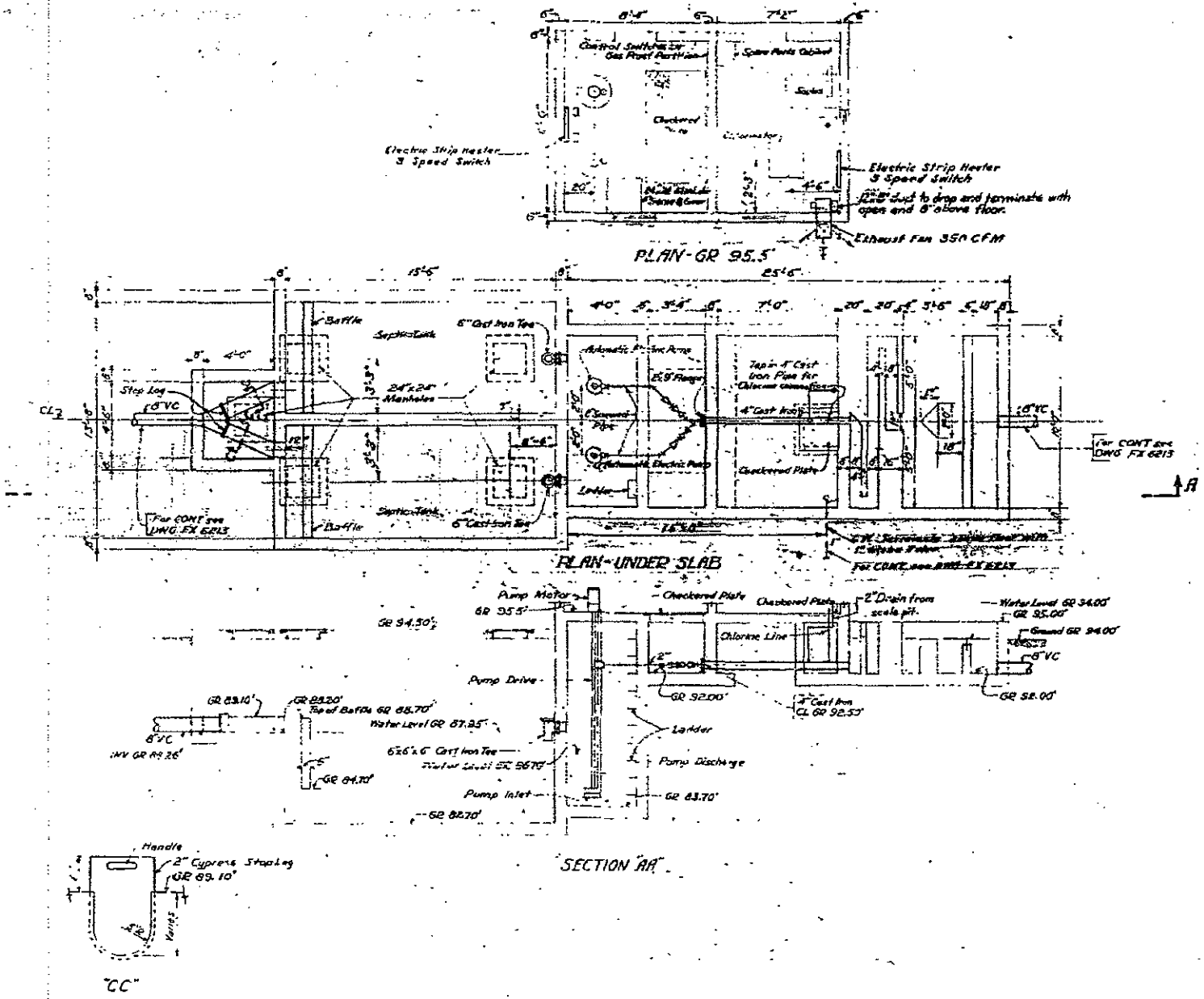
Name and Official Title: Edward H. Baine, VP Power Generation Systems Operations

Signature: Edward H. Baine

Telephone number / Email: (804) 273-3592 / ed.baine@dom.com

Date signed: 1/12/15

(Based on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)


Electric Strip Heater
3 Speed Switch
Exhaust Fan 350 CFM
PLAN-GR 95.5'
Baffle
Septic Tank
6" Cast Iron Tee
Stop Log
24"x24" Manhole
Ladder
Tap in 4" Cast Iron Pipe for Chlorine connection
4" Cast Iron
Checkered Plate
For CONT see DWG FX 6213
PLAN-UNDER SLAB
Pump Motor
GR 95.5'
GR 94.50'
Checkered Plate
2" Drain from scale pit.
Water Level GR 94.00'
GR 95.00'
Ground GR 94.00'
Chlorine Line
Pump Drive
GR 92.00'
GR 92.00'
Water Level GR 87.35'
Ladder
Pump Discharge
Pump Inlet
GR 83.70'
GR 88.70'
SECTION "AA"
Handle
2" Cypress Stop Log
GR 89.10'
"CC"

Bremo Power Station-Sludge Transport Route.

RIVANNA WATER & SEWER AUTHORITY

695 Moores Creek Lane, Charlottesville, Virginia 22902-9016
Tel: 434-977-2970 ▪ Fax: 293-8858 ▪ Email: www.Rivanna.org

March 30, 2010

Mindy Wayland
Dominion Virginia Power
Bremo Power Station
1038 Bremo Road
Bremo Bluff, VA 23022

Re: Approved waste acceptance

Dear Ms. Wayland:

Based on the information provided to us, your request to continue to dispose of waste at the Moores Creek Wastewater Treatment Plant located in Charlottesville, Virginia has been approved.

The hauler that you designate to transport waste to the MCWWTP must be approved by the Authority.

If you have any questions, please feel free to contact me at (434) 977-2970, ext. 137.

Sincerely,

Miranda Baird
Accounts Receivable Technician

Request for Waivers from Sampling and Testing Parameters
Sampling Plan Approval

Dominion Resources Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
Web Address: www.dom.com

Dominion®

BY US MAIL

February 26, 2014

Ms. Beverly Carver
Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

Re: Dominion- Bremo Power Station
VPDES Permit No. VA0004138 - Bremo Power Station
Permit Reissuance Application Data Generation Plan and Waivers Request

Dear Ms. Carver:

Dominion's Bremo Power Station is preparing an application to renew the Bremo Power Station's VPDES permit (VA0004138). This current permit expires on July 31, 2015.

We have developed the attached effluent data generation plan that describes how we intend to generate the effluent data needed to complete the application. Also included are requests for waivers from default testing and sampling requirements as allowed by EPA Forms 2C. Dominion is requesting your review and approval of the enclosed waiver requests.

Dominion appreciates this opportunity to review these requirements and coordinate our sampling plan with your agency. If you have any questions, please contact Oula Shehab-Dandan at (804) 273-2697 or oula.k.shehab-dandan@dom.com.

Sincerely,

Cathy C. Taylor

Cathy C. Taylor
Director, Electric Environmental Services

Attachment

Outfall 001 Cooling Water

Outfall 001 continuously discharges non-contact condenser cooling water withdrawn from the James River after it is used by the once-through cooling system for the fossil fuel generating units. Chlorine has not been used for maintenance in the condenser cooling system at this facility since the 1980s and there are no future plans to chlorinate. No chemicals are used and there is no chemical cleaning. The system is not chemically altered by the addition of biocides, corrosion inhibitors or other cooling water treatment additives as part of station operations.

The station uses the Deicing Water System during the coldest days to divert approximately 10,000 gpm (two 5,000 gpm pumps) of this heated effluent back to the intake to prevent the accumulation of ice on the intake trash rack. This is approximately 8.6% of the total cooling water flows (116,000 gpm) for Units 3 & 4.

We request a waiver from the 24-hr composite sampling requirement. We propose to collect single grab samples for summer and winter temperature, BOD, COD, TOC, TSS, & ammonia. Chlorine is not used; therefore, we do not plan to test for total residual chlorine. We will submit available DMR data for flow, pH and TRC. We will collect grab samples and analyze for all pollutants believed present included in Form 2C, Parts V-B & C of the permit application, including any additional parameters listed in the Virginia Water Quality Standards (WQS) believed to be present.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
001 – Once Through Cooling Water	2C – Part V-A	Flow, pH	DMRs	
		Remaining Part A Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V-B	TRC	DMRs	
		Fecal Coliform	No testing	Waiver from testing as no station activities contribute to or adversely affect concentrations of this parameter
		Sulfite	Believed absent	
		Remaining Part B Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V- C	Dioxin	Believed absent	
		Remaining Part C Parameters	Field sampling - Grab	Grab to replace 24hc
	VA – WQS	Chlorides, Nitrate N, TDS, Cr3, Cr6, H2S, Pesticides, PCBs, Strontium 90, Tritium	Field sampling – Grab	Grab to replace 24hc
		TBT	Believed absent	

Outfall 002 West Ash Pond

Outfall 002 is substantially identical to Outfall 004 (North Ash Pond) and was previously approved as a representative outfall. Outfall 002 continuously discharges, and includes flows from the Units 3 & 4 boiler blowdown, the water treatment plant, ash sluice water that transports fly ash and bottom ash, floor drains, bearing cooling water, coal pile runoff (Outfall 204), and treated sanitary wastewater (Outfall 203). The retention time of this facility is > 24 hours.

We will collect single grab samples for summer and winter temperatures, BOD, COD, TOC, & ammonia. We will submit only available DMR data for flow, pH, TSS, and oil & grease. We will collect grab samples and analyze for all pollutants believed present included in Form 2C, Parts V-B & C of the permit application, including any additional parameters listed in the Virginia Water Quality Standards (WQS) believed to be present.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
002 – West Ash Pond	2C – Part V-A	Flow, pH, TSS	DMRs	
		Remaining Part A Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V-B	Oil and Grease	DMRs	
		Fecal Coliform	No testing	Waiver from testing as no station activities contribute to or adversely affect concentrations of this parameter
		TRC, Sulfite	Believed absent	
		Remaining Part B Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V-C			
		Dioxin	Believed absent	
		Remaining Part C Parameters	Field sampling - Grab	Grab to replace 24hc
	VA – WQS	Chlorides, Nitrate N, TDS, Cr3, Cr6, H2S, Pesticides, PCBs, Strontium 90, Tritium	Field sampling – Grab	Grab to replace 24hc
		TBT	Believed absent	

Outfall 003 Abandoned East Ash Pond (Storm water)

This outfall discharges storm water from an area of approximately 21 acres. We request waivers from 2F application sampling. We will submit Stormwater Registration Statement for this outfall.

Outfall 004 North Ash Disposal Facility

This outfall is substantially identical to Outfall 002 (West Ash Pond). Approval is requested for using Outfall 002 data to represent Outfall 004 since they are substantially identical discharges. We will submit only available DMR data for flow, pH, TSS and Oil &Grease.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
004 – North Ash Pond This outfall is substantially identical to Outfall 002.	2C – Part V-A	Flow, pH, TSS Remaining Part A Parameters	DMRs No testing	 Approval to use Outfall 002 to represent 004
	2C – Part V-B	Oil & Grease Remaining Part B Parameters	DMRs No testing	 Approval to use Outfall 002 to represent 004
	2C – Part V-C	Remaining Part C Parameters	No testing	Approval to use Outfall 002 to represent 004
	VA – WQS	Chlorides, Nitrate N, TDS, Cr3, Cr6, H2S, Pesticides, PCBs, Strontium 90, Tritium TBT	No testing	Approval to use Outfall 002 to represent 004

Outfall 006 Old Kanawha Canal (Storm water)

This outfall is not considered an industrial storm water outfall. The only storm water conveyed to this outfall is from precipitation that falls directly into the dewatered Kanawha Canal where there is no industrial activity. We are proposing no monitoring. We will submit Stormwater Registration Statement for this outfall.

Outfall 101 Intake Screen Backwash

Outfall 101 discharge is a continuous non-process waste stream. No chemicals are used and there is no chemical cleaning. This discharge is neither chlorinated nor chemically altered by the addition of biocides, corrosion inhibitors or other cooling water treatment additives as part of station operations.

We request a waiver from the sampling this outfall.

Outfall 202 Metals Pond

The internal Outfall 202 intermittently discharges treated boiler cleaning wastewater and air preheater and precipitator washes to the West Ash Pond. The retention time of the metals pond is > 24 hours. It was designed to hold 5,700,000 gallons of chemical and non-chemical metal cleaning wastewater.

Since the discharge is intermittent, and there are no scheduled boiler cleanings or air preheater and precipitator washes in 2014, there is likelihood that no discharge will be available for sampling.

If there is no discharge from the metals pond, we will provide available DMR data for flow, TSS, oil & grease, Cu and Fe.

If there is a discharge, we will collect single grab samples for BOD, COD, TOC, ammonia, temperature and pH. In addition, we will provide available DMR data for flow, TSS, oil & grease, Cu and Fe. We will collect and analyze for all pollutants included in Form 2C, Parts V-B & C of the permit application including any additional parameters listed in the Virginia Water Quality Standards believed to be present.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
202 – Metals Pond	2C – Part V-A	Flow, TSS	DMRs	
		Remaining Part A Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V-B	Oil & Grease, Total Fe	DMRs	
		Fecal Coliform	No testing	Waiver from testing as no station activities contribute to or adversely affect concentrations of this parameter
		TRC, Sulfite	Believed absent	
		Remaining Part B Parameters	Field sampling - Grab	Grab to replace 24hc
	2C – Part V-C	Total Cu	DMRs	
		Dioxin	Believed absent	
		Remaining Part C Parameters	Field sampling – Grab	Grab to replace 24hc
	VA – WQS	Chlorides, Nitrate N, TDS, Cr3, Cr6, H2S, Pesticides, PCBs, Strontium 90, Tritium	Field sampling – Grab	Grab to replace 24hc
		TBT	Believed absent	

Outfall 203 Sewage Treatment Plant

Outfall 203 consists solely of an intermittent Sewage Treatment Plant discharge (design flow < 0.1 mgd) to the Storm Water Treatment pond. The plant treats only sanitary wastewater. The wastewater undergoes secondary treatment and disinfection before it is discharged to the Storm Water Treatment pond. It mixes with stormwater and other industrial wastewaters, and discharges to the West Ash Pond through internal Outfall 204.

In the previous permit reissuance application, DEQ approved the use of Form 2C for this outfall. The treated sanitary wastewater discharged through an internal outfall commingles with other treated industrial wastewaters in the West Ash pond before it is discharged to state waters; we request the approval to use Form 2C with this permit reissuance for this outfall. We will submit available DMR data for flow and TRC. No other testing is proposed.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
203 – STP	2C – Part V-A	Flow	DMRs	Waiver from additional sampling and monitoring
	2C – Part V-B	TRC	DMRs	Waiver from additional sampling and monitoring

Outfall 204 Storm Water Treatment Pond

Coal pile runoff, discharge from Outfall 203 and other industrial wastewaters collect iu the Stormwater Treatment Pond for settling. The pond then discharges internally through Outfall 204 to the West Ash Pond which provides additional treatment prior to discharge to the James River through Outfall 002. We request a waiver from Form 2C sampling and testing. We will submit available DMR data for TSS.

Outfall	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
204 – Coal pile runoff internal to Outfall 002	2C – Part V-A	TSS	DMRs	Waiver from additional sampling and monitoring

Intake

	EPA Form	Parameters	Data Source To Be Used	Waiver Requested
Intake	2C – Part V-A	Flow Remaining Part A Parameters	No data Field sampling - Grab	
	2C – Part V-B	Fecal Coliform, TRC, Sulfite Remaining Part B Parameters	No testing Field sampling - Grab	
	2C – Part V-C	Dioxin Remaining Part C Parameters	Believed absent Field sampling - Grab	
	VA – WQS	Chlorides, Nitrate N, TDS, Cr3, Cr6, H2S, Pesticides, PCBs, Strontium 90, Tritium TBT	Field sampling – Grab Believed absent	

Sludge Disposal- Form 2S Table 8.

The sludge generated at the Sewage Treatment Plant is pumped and hauled offsite on as need basis for treatment and disposal. No sludge sampling and testing is proposed.

Oula K Shehab-Dandan (Services - 6)

From: Carver, Beverley (DEQ) [Beverley.Carver@deq.virginia.gov]
Sent: Wednesday, March 19, 2014 8:56 AM
To: Oula K Shehab-Dandan (Services - 6)
Subject: Dominion - Bremo Power Station - VA0004138 - Application Data Plan

Hi Oula,

I have reviewed the Permit Reissuance Application Data Generation Plan and Waiver Request contained in the letter dated February 26, 2014. The waiver request is acceptable. The application is due by January 27, 2015. It is my understanding that the facility will begin using natural gas in the second quarter of 2014. If possible, the samples for the 2015 application should be collected after the facility begins operating as a natural gas facility.

If you have any questions, let me know.

Sincerely,

Bev Carver

Beverley W. Carver
Water Permit Writer Senior
Department of Environmental Quality
Valley Regional Office
4411 Early Road, Harrisonburg, VA
Phone: (540) 574-7805 FAX: (540)574-7878
email: Beverley.Carver@deq.virginia.gov
web: www.deq.virginia.gov
Mail: P.O. Box 3000, Harrisonburg, VA 22801

VPDES Permit Reissuance Addendum

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Virginia Electric and Power Company
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** ☐ YES ☑ NO
   Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.

3. **What is the tax map parcel number for the land where this facility is located?** See Attached

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** Undetermined

5. ALL FACILITIES: **What is the design average flow of this facility?** 172.8 MGD
   Industrial facilities: **What is the maximum 30-day avg. production level (include units)?** 227 Megawatts

   In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? ☐ YES ☑ NO

   If "Yes", please specify the other flow tiers (in MGD) or production levels: --
   Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. **Nature of operations generating wastewater:**
   Steam Electric Power Generation

   0.15 % of flow from domestic connections/sources
   Number of private residences to be served by the wastewater treatment facilities: ☑ 0 ☐ 1-49 ☐ 50 or more

   99.58 % of flow from non-domestic connections/sources

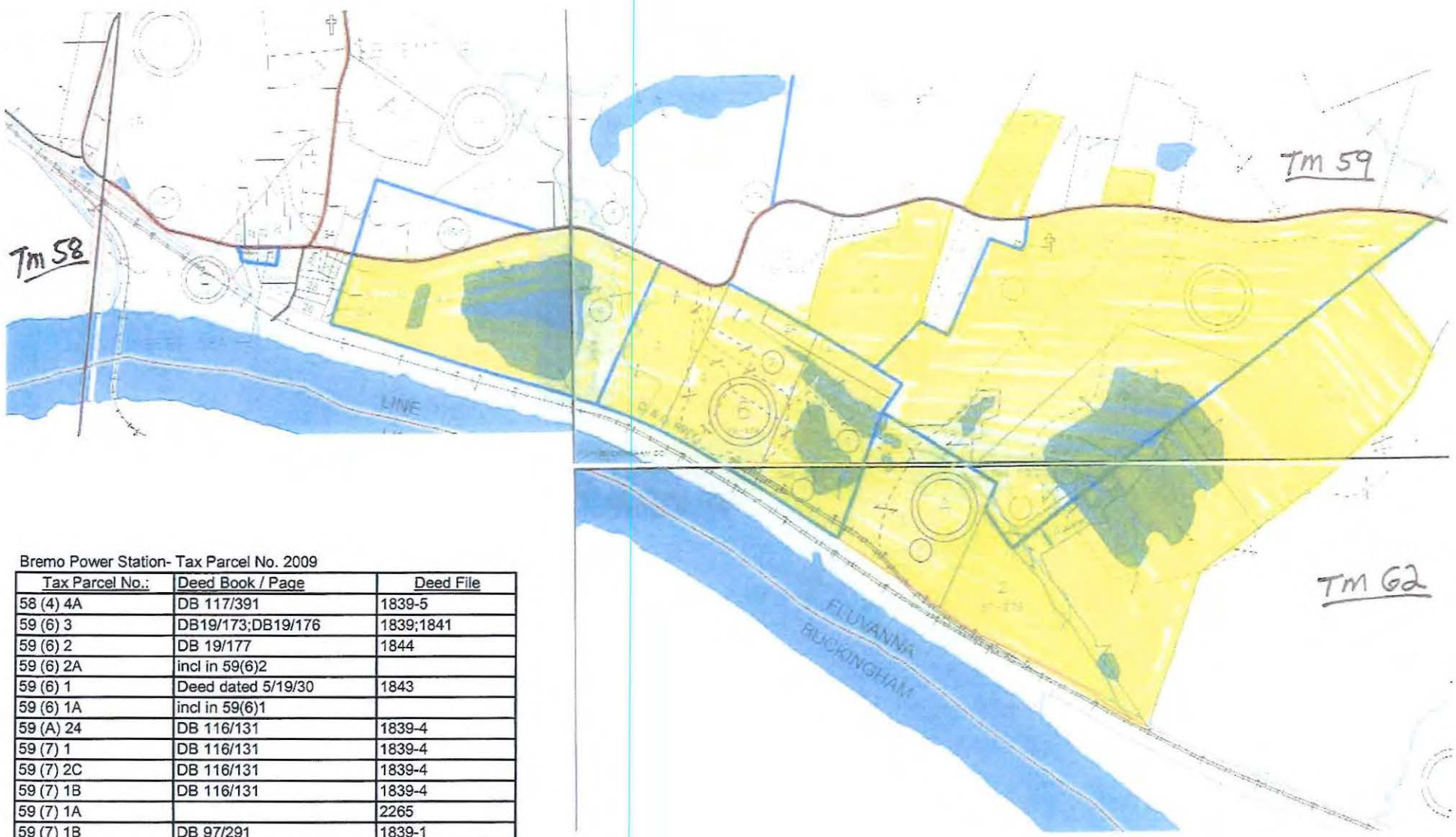
7. **Mode of discharge:** ☑ Continuous ☐ Intermittent ☐ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   N/A

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   ☑ Permanent stream, never dry
   ☐ Intermittent stream, usually flowing, sometimes dry
   ☐ Ephemeral stream, wet-weather flow, often dry
   ☐ Effluent-dependent stream, usually or always dry
   ☐ Lake or pond at or below the discharge point
   ☐ Other: _____

9. **Consent to receive electronic mail**
   The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

   ☑ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.
   Please provide email: cathy.c.taylor@dom.com and oula.k.shehab-dandan@dom.com

   ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.



Bremo Power Station- Tax Parcel No. 2009

Tax Parcel No.:	Deed Book / Page	Deed File
58 (4) 4A	DB 117/391	1839-5
59 (6) 3	DB19/173;DB19/176	1839;1841
59 (6) 2	DB 19/177	1844
59 (6) 2A	incl in 59(6)2	
59 (6) 1	Deed dated 5/19/30	1843
59 (6) 1A	incl in 59(6)1	
59 (A) 24	DB 116/131	1839-4
59 (7) 1	DB 116/131	1839-4
59 (7) 2C	DB 116/131	1839-4
59 (7) 1B	DB 116/131	1839-4
59 (7) 1A		2265
59 (7) 1B	DB 97/291	1839-1
59 (7) 26	DB 101/432	1839-2
62 (A) 1	DB 39/216	2000
62 (A) 2	DB 50/283	2264
62 (A) 3	DB 50/241 & 246	2263
62 (A) 4	CB13/360;DB154/47	1839-3;1839-6

Billing Information Form for Annual Maintenance Fee

VPDES/VPA Permit Billing Information Form
for Annual Maintenance Fee

Facility Name:	Dominion - Bremo Power Station
Permit Number:	VA0004138
Owner Name:	Virginia Electric and Power Company
Owner Address:	5000 Dominion Boulevard
	Glen Allen, VA 23060
	--
Billing Contact Name:	Cathy C. Taylor
Title:	Director, Electric Environmental Services
Phone Number:	(804) 273-2929
E-Mail Address:	cathy.c.taylor@dom.com

Public Notice Billing Information

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in The Daily Progress in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: Cathy C. Taylor

Owner: Virginia Electric & Power Company

Agent/Department Address: Electric Environmental Services

5000 Dominion Boulevard

Glen Allen, VA 23060

Agent's Telephone No.: (804) 273-2929

Printed Name: Cathy C. Taylor

Authorizing Agent – Signature: Cathy C Taylor

Date: 1/14/2015

Facility Name: Dominion-Bremo Power Station

VPDES Permit No. VA 0004138

GROUNDWATER BACKGROUND
AND
WATER QUALITY REPORT

GROUNDWATER BACKGROUND AND WATER QUALITY REPORT

BREMO POWER STATION
BREMO BLUFF, VIRGINIA
VPDES PERMIT NO. VA0004138

JANUARY 6, 2015

Prepared for:

Dominion Resources Services, Inc.
Electric Environmental Services
5000 Dominion Boulevard
Glen Allen, VA 23060

Prepared by:

URS Corporation
4905 Dickens Road, Suite 106
Richmond, Virginia 23230
(804) 965-9000

URS Job No. 11658524

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1.0 INTRODUCTION

1.1 PURPOSE

In accordance with Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0004138 and the Groundwater Monitoring Plan (GMP), URS Corporation (URS) is providing a Groundwater Background and Water Quality Report for the Bremo Power Station (Station). The purpose of this report is to establish background values for each monitored constituent in groundwater and to assess the quality of groundwater beneath the Facility.

1.2 SITE BACKGROUND

The Bremo Power Station is owned and operated by Virginia Electric and Power Company. The station has recently converted from a coal-fired power plant to a natural gas-fired power plant. Coal ash from historical operations is stored in three disposal impoundments onsite (North Pond, West Pond, and East Pond). A storm water management pond is also located adjacent to the former coal stockpile. A map of the Facility and ponds is provided as Figure 1. The North and West ponds are functionally active and the East Ash Pond is inactive and closed. The Station's VPDES permit requires a groundwater monitoring program that addresses all active and closed impoundments and ponds.

1.3 PHYSICAL SETTING

The Facility is located at 1038 Bremo Road in Bremo Bluff, Virginia. The Station is situated along the James River in Fluvanna County. The Station is situated on wooded, open and developed land just north of the James River. A railroad track separates the Station from the river. The site possesses two distinct gradients within its boundaries: 1) more level to slightly sloping grades in the southern sections of the site near the river, and 2) rolling land with moderate to steeply sloping grades and deep ravines in the northern-most and western-most sections of the site. Grades at the site slope southerly to southwesterly from about 400 feet mean sea level (ft msl) to 220 ft msl.

1.4 MONITORING WELL NETWORK

The groundwater monitoring well network consists of fourteen wells (see Figure 1):

Well ID	Well Hydraulic Position	Management Unit
MW-1	Upgradient	West Ash Pond
MW-2	Downgradient	West Ash Pond
MW-3	Downgradient	West Ash Pond
MW-4	Downgradient	Storm Water Management Pond
MW-5	Downgradient	Storm Water Management Pond
MW-6	Downgradient	East Ash Pond

Well ID	Well Hydraulic Position	Management Unit
MW-7	Downgradient	East Ash Pond
MW-8	Downgradient	East Ash Pond
MW-9	Downgradient	North Ash Pond
MW-10	Downgradient	North Ash Pond
MW-11	Upgradient	Storm Water Management, East Ash, North Ash Ponds
MW-12	Downgradient	West Ash Pond
MW-13	Downgradient	Metals Pond
W-3	Downgradient	North Ash Pond

1.5 MONITORING HISTORY

The Facility has been monitoring groundwater in accordance with VPDES Permit No. VA0004138 and the GMP since March 2013. Sampling has been conducted on a quarterly basis for a total of two years during the background monitoring period to collect a minimum of eight samples per well to evaluate background water quality. Groundwater sampling during the background data collection period was conducted on the following dates:

- March 11, 2013
- June 4, 2013
- July 30, 2013
- December 4, 2013
- February 26, 2014
- May 20, 2014
- July 16, 2014
- October 1, 2014

Groundwater sampling parameters consist of dissolved metals, water quality parameters, and field measurements. Laboratory analyses were performed by Dominion Laboratory Services in Chester, Virginia, a Virginia Environmental Laboratory Accreditation Program (VELAP) laboratory (VELAP ID 450080). Quarterly groundwater monitoring data for each well is summarized in Table 1. It should be noted that no samples were collected from well MW-9 during the background collection period. This well is located in an upland area with limited groundwater availability. Replacing the well was not considered warranted at this time as was reported to the Virginia Department of Environmental Quality (VDEQ) in July 2013.

A previous VPDES requirement included the collection of groundwater samples from one upgradient and one downgradient well on a five-year cycle. The two wells are not included in the current monitoring well network. The location of those wells is shown in Figure 2 and the results of the last sampling event from 2006 are included in Appendix A.

2.0 DATA EVALUATION

Groundwater monitoring data collected during the last two years is evaluated in this section by determining site-specific background values and by comparing monitoring data to background values and groundwater standards to evaluate groundwater quality

2.1 BACKGROUND STATISTICAL ANALYSIS

For the purposes of this analysis, background well data from upgradient wells MW-1 and MW-11 were used to develop site-specific background values. The statistical methodology used follows the United States Environmental Protection Agency's (EPA's) March 2009 Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance and is described in this section.

Site-specific background values were calculated for all dissolved metals, water quality parameters, and pH. The following methodology was used for background development:

a. Upgradient well data was compiled and pooled for each constituent.

b. Determination of the appropriate statistical method was determined based on the percent non-detects (%ND) for the data set and its distribution:

   - *Datasets with 15% or less NDs* - ND results were replaced with one-half the reporting limit (RL) and then the data set was tested for normality or lognormality. A parametric 95% upper tolerance limit (UTL) statistical method was used for normal or lognormal data sets. A non-parametric 95% UTL statistical method was used for non-normal or non-lognormal data sets.

   - *Data sets with %ND between 15% and 50%* - the data set was analyzed for normality or lognormality. The data set was evaluated using the Kaplan Meier (KM) method. A parametric 95% UTL statistical result was used for normal or lognormal data sets. A non-parametric 95% UTL statistical result was used for non-normal or non-lognormal data sets.

   - *Data sets with %ND greater than 50%* - these data sets were considered non-parametric and; therefore, a non-parametric statistical method was used.

c. 95% Upper Tolerance Limit was calculated to determine background value.

A summary of background development and background values is included in Appendix B and complete statistical background development calculations are included in Appendix C.

2.2 GROUNDWATER QUALITY EVALUATION

To evaluate the quality of groundwater collected during the background monitoring period, analytical results have been compared to the following:

- Site-specific background values (see Section 2.1);
- EPA National Primary Drinking Water Maximum Contaminants Levels (MCLs); and
- Virginia Groundwater Quality Standards (VGQS) as listed in the VDEQ anti-degradation policy for groundwater (9 VAC 25-280).

Table 1 includes the groundwater data quality results for each well and Table 2 summarizes the water quality comparisons with applicable groundwater standards. In summary, several parameters (arsenic, barium, iron, manganese, vanadium, zinc, ammonia, chloride, hardness, sulfate, total dissolved solids, and pH) were found in site wells at concentrations greater than site background. In addition, the following detections above State and Federal standards were identified:

- Arsenic is above the EPA MCL in downgradient wells MW-7 and MW-8. Arsenic is above the VGQS in MW-7. Wells MW-7 and MW-8 monitor the closed East Ash Pond.
    - The highest dissolved arsenic concentrations are found in well MW-7 at concentrations ranging from 0.206 to 0.276 milligrams per liter (mg/L).
- Barium, dissolved is above the VGQS in downgradient well MW-8 (East Ash Pond).
    - Barium concentrations are below the EPA MCL.
- Cadmium is above the VGQS in wells MW-6 (East Ash Pond) and MW-13 (Metals Pond).
    - Cadmium concentrations are below the site-specific background value.
    - Cadmium concentrations are below the EPA MCL.
- Zinc, dissolved is above the VGQS in downgradient well MW-4 (Storm Water Management Pond).
    - The last three events indicated MW-4 zinc concentrations below the VGQS.
- Ammonia is above the VGQS in wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10, MW-12, MW-13, and W-3. These wells monitor the West Ash Pond, Stormwater Management Pond, East Ash Pond, North Ash Pond, and Metals Pond. There is no EPA MCL for ammonia.
    - The highest ammonia concentrations are found in well MW-8 at concentrations ranging from 0.98 to 1.41 mg/L.
- pH is less than the lower VGQS limit in background well MW-1. There is no EPA MCL for pH.
    - Only one of the eight pH values measured in well MW-1 was below the VGQS.

3.0 CONCLUSIONS

Quarterly background monitoring from March 2013 to October 2014 from the Bremo Power Station groundwater monitoring well network has produced several conclusions:

- Arsenic, barium, iron, manganese, vanadium, zinc, ammonia, chloride, hardness, sulfate, total dissolved solids (TDS), and pH have been found at concentrations above background levels in downgradient monitoring wells.
- Arsenic is the only constituent detected above an EPA MCL in the monitoring well network. These detections occur in two wells downgradient of the East Ash Pond.
- Detections above the respective VGQS were identified for ammonia, arsenic, barium, cadmium, and zinc in several wells during the two-year monitoring period. These detections occur downgradient of the West Ash Pond, Stormwater Mangement Pond, North Ash Pond, and Metals Pond.

In accordance with the VPDES permit, a Corrective Action Plan will be submitted to VDEQ within 90 days of submittal of this report based on data that suggests groundwater quality at the site is influenced by the presence of the ash ponds.

FIGURES

SCALE 1:5333

0 1000

FEET

FIGURE 1

Dominion Bremo Power Station
Groundwater Monitoring Well Network
March 5, 2013

LEGEND

⊙ **Monitoring Well**

Legend

Monitoring Well

Image Date: 5/10/10

URS

URS Corporation
4905 Dickens Road
Suite 106
Richmond, Virginia 23230

Date: December 16, 2014	Job Number: 11658524
Prepared By: RJP	Reviewed By: KAH
Scale: 1" = 700'	File Name: Fig.2 Former Network

Figure 2
Historical Monitoring Well Network

Groundwater Background and Water Quailty Report
Bremo Power Station
VPDES No. VA0004138

TABLES

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-1: Background Well

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/30/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.023**	**0.017**	**0.016**	**0.013** J	**0.012** J	**0.017**	**0.026**	**0.014** J
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	**0.0003** J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.47**
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**0.08**	**0.13**	**0.09**	**0.09**	**0.07**	**0.13**	**0.10**	**0.15**
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.002** J	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.01** J	**0.01** J	**0.01** J	**0.01** J	**0.01** J,B	**0.02** J,B	**0.01** J	<0.01
Chloride	0.05	0.25	9.08	--	--	**1.88**	**1.91**	**2.34**	**2.34**	**2.71**	**2.55**	**2.20**	**2.32**
Hardness	3	10	119.7	--	--	**13.68**	**29.07**	**13.68**	**22.23**	**25.65**	**18.81**	**22.23**	**27.36**
Nitrate	0.01	0.05	0.30	10	5	**0.16**	**0.14**	**0.06**	**0.12**	**0.10**	**0.07**	**0.14**	**0.17**
Sulfate	0.06	0.30	8.44	--	--	**1.39**	**1.63**	**1.32**	**1.74**	**2.07**	**2.17**	**1.90**	**2.32**
Total Dissolved Solids (TDS)	10	10	161	--	--	**29.5**	**48.5**	**51.0**	**31.5**	**42.5**	**38.5**	**46.0** H	**42.0**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	47	47	51	50	49	50	50	52
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	216.86	215.10	215.88	215.86	217.26	217.36	215.66	207.13
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	6.03	5.92	5.82	5.45	6.01	5.57	5.98	6.00
Sample Time (hours)	N/A	N/A	--	--	--	1520	1320	1145	1325	1555	1125	1100	1100
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	14.40	15.85	17.55	16.76	13.79	16.10	16.41	17.90
Turbidity (NTU)	N/A	N/A	--	--	--	29.8	3.18	2.56	2.82	4.03	1.94	1.78	2.60

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)
Bold = Detected concentration

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-11: Background Well

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/12/2013	6/4/2013	7/31/2013	12/4/2013	2/27/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.007** J	**0.008** J	**0.008** J	<0.003	<0.003	**0.004** J	**0.008** J	**0.024**
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**0.30**	**0.22**	**0.15**	**0.02** J	**0.02** J	<0.02	<0.02	<0.02
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	**0.002** J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	**0.006**	**0.005**	**0.008**	**0.006**	**0.009**	**0.009**	**0.011**	**0.009**
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.01** J	**0.02** J	**0.01** J	<0.01	**0.01** J,B	**0.01** J,B	<0.01	**0.02** J,B
Chloride	0.05	0.25	9.08	--	--	**8.12**	**8.78**	**8.66**	**8.82**	**8.72**	**8.52**	**8.36**	**9.08**
Hardness	3	10	119.7	--	--	**119.70**	**107.73**	**104.31**	**107.73**	**117.99**	**119.70**	**109.44**	**99.18**
Nitrate	0.01	0.05	0.30	10	5	**0.05**	**0.04** J	**0.05**	**0.05**	**0.04** J	**0.03** J	**0.04** J	**0.04** J
Sulfate	0.06	0.30	8.44	--	--	**5.90**	**7.09**	**6.48**	**6.51**	**7.64**	**7.82**	**7.84**	**8.44**
Total Dissolved Solids (TDS)	10	10	161	--	--	**148.5**	**152.5**	**161.0**	**132.0**	**147.0**	**133.5**	**141.0** H	**129.5**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	213	199	216	210	200	192	180	204
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	300.02	301.70	302.62	302.72	304.62	306.67	306.39	304.29
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	6.71	6.31	7.19	6.01	6.40	6.47	6.72	6.42
Sample Time (hours)	N/A	N/A	--	--	--	1235	1155	1255	1115	1155	1350	1350	1315
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	15.03	15.84	15.31	14.62	14.56	17.06	16.57	16.01
Turbidity (NTU)	N/A	N/A	--	--	--	664	61.4	24.2	23.6	7.60	8.15	7.02	7.40

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-2: Downgradient Well (West Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.081**	**0.037**	**0.016**	**0.029**	**0.028**	**0.042**	**0.056**	**0.032**
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	**0.0003** J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	<0.05	**0.08** J	<0.05	**0.07** J	<0.05	**0.09** J	**0.06** J	**0.17** J
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**0.59**	**0.76**	**0.69**	**0.68**	**0.61**	**0.61**	**0.53**	**0.59**
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	**0.011** J	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.01** J	**0.01** J	**0.01** J	**0.01** J	**0.01** J,B	**0.02** J,B	**0.01** J	<0.01
Chloride	0.05	0.25	9.08	--	--	**11.65**	**13.10**	**13.86**	**16.91**	**14.54**	**13.48**	**13.52**	**15.24**
Hardness	3	10	119.7	--	--	**184.68**	**181.26**	**174.42**	**159.03**	**181.26**	**164.16**	**153.90**	**160.74**
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	**171.18**	**166.79**	**149.07**	**138.33**	**131.73**	**126.69**	**121.81**	**143.51**
Total Dissolved Solids (TDS)	10	10	161	--	--	**324.0**	**322.0**	**352.0**	**277.0**	**264.5**	**262.5**	**268.0** H	**272.0**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	432	420	443	430	389	372	358	366
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	214.93	211.68	158.13	214.28	214.98	215.2	211.3	211.28
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.74	7.51	5.59	5.77	5.80	5.75	6.12	5.73
Sample Time (hours)	N/A	N/A	--	--	--	1145	1305	1255	1110	1225	1235	1300	1150
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	12.33	15.2	17.02	15.9	12.01	13.9	16.34	16.91
Turbidity (NTU)	N/A	N/A	--	--	--	21.8	2.19	1.19	1.11	6.14	4.19	6.11	0.61

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-3: Downgradient Well (West Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/30/2013	12/4/2013	2/27/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.110**	**0.118**	**0.448**	**0.091**	**0.054**	**0.091**	**0.116**	**0.052**
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	**0.0003** J	<0.0003	<0.0003	**0.0004** J	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	**0.003** J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	**0.09** J	**0.14** J	**0.22** J	**0.09** J	**0.20** J	**0.31**	**0.29**	**0.95**
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**0.56**	**0.67**	**0.57**	**0.45**	**0.53**	**0.62**	**0.45**	**0.64**
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	**0.01** J	<0.01	<0.01	<0.01	**0.01** J	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.01** J	**0.01** J	**0.01** J	**0.01** J	**0.01** J,B	**0.02** J,B	**0.01** J	**0.03** J,B
Chloride	0.05	0.25	9.08	--	--	**4.16**	**4.79**	**4.05**	**4.81**	**4.46**	**3.99**	**4.30**	**4.72**
Hardness	3	10	119.7	--	--	**46.17**	**42.75**	**39.33**	**42.75**	**63.27**	**42.75**	**44.46**	**51.30**
Nitrate	0.01	0.05	0.30	10	5	**0.01** J	**0.05**	<0.01	**0.20**	**0.05**	**0.01** J	**0.09**	<0.01
Sulfate	0.06	0.30	8.44	--	--	**37.43**	**37.62**	**31.12**	**31.61**	**40.80**	**41.67**	**37.25**	**42.79**
Total Dissolved Solids (TDS)	10	10	161	--	--	**151.5**	**119.0**	**125.0**	**114.5**	**120.0**	**117.5**	**115.0** H	**113.0**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	147	135	141	150	149	149	136	155
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	211.94	209.19	210.6	211.34	212.84	213.09	208.94	208.96
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.67	5.26	5.31	4.92	4.99	5.28	5.24	5.26
Sample Time (hours)	N/A	N/A	--	--	--	1610	1440	1320	1220	1115	1210	1500	1145
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	15.08	15.2	19.16	15.81	11.93	15.23	16.9	17.07
Turbidity (NTU)	N/A	N/A	--	--	--	64.1	2.67	21.5	1.79	2.44	8.27	1.73	1.78

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-4: Downgradient Well (Storm Water Management Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/30/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.095	0.062	0.075	0.053	0.059	0.028	0.045	0.054
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	**0.0003** J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	7.42	5.14	8.98	10.94	2.98	21.09	11.24	13.05
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	11.78	10.67	10.25	9.77	11.62	9.41	7.87	7.74
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	**0.002** J	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	0.057	0.056	0.061	0.045	0.059	0.037	0.031	0.046
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	0.16	0.15	0.16	0.24	0.13	0.36	0.27	0.31
Chloride	0.05	0.25	9.08	--	--	12.20	14.99	14.32	14.48	13.82	13.45	13.28	14.40
Hardness	3	10	119.7	--	--	2009.25	1573.20	1393.65	1539.00	1487.70	1812.60	1487.10	1248.30
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04** J	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	1285.80	1343.49	1162.61	1142.74	1415.19	1129.96	1079.03	1075.46
Total Dissolved Solids (TDS)	10	10	161	--	--	2017.0	2336.0	2254.5	2012.5	2346.5	1964.0	1971.0 H	1791.5
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	2200	2230	2360	2240	2480	2140	1900	2060
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	212.60	211.19	212.50	211.29	211.45	213.57	211.70	211.29
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.78	5.70	7.17	5.71	5.75	5.69	5.80	5.68
Sample Time (hours)	N/A	N/A	--	--	--	1155	1125	1225	1115	1125	1130	1200	1225
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	15.66	16.45	17.53	17.53	16.00	16.45	17.51	19.05
Turbidity (NTU)	N/A	N/A	--	--	--	50.0	22.8	18.1	15.58	9.18	11.0	9.70	9.63

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-5: Downgradient Well (Storm Water Management Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/30/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.125	0.131	0.491	0.074	0.038	0.134	0.160	0.122
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.05	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	6.46	8.50	9.74	8.09	8.90	8.33	8.99	6.60
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	1.02	1.18	1.12	1.25	1.19	1.27	1.07	1.31
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	0.52	0.70	0.68	0.66	0.64	0.56	0.68	0.44
Chloride	0.05	0.25	9.08	--	--	8.72	9.58	9.31	9.38	9.25	9.12	9.19	10.15
Hardness	3	10	119.7	--	--	205.20	153.90	165.87	150.48	150.48	172.71	167.58	167.58
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	0.02 J	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	8.03	3.21	3.42	4.70	6.59	9.12	3.91	6.95
Total Dissolved Solids (TDS)	10	10	161	--	--	204.5	216.5	226.0	201.5	211.0	204.5	211.0 H	218.5
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	352	342	369	367	357	367	352	352
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	212.85	212.50	212.97	213.03	211.77	214.27	211.89	212.07
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	6.53	6.48	7.83	6.50	6.47	6.42	6.53	6.41
Sample Time (hours)	N/A	N/A	--	--	--	1345	1245	1500	1230	1225	1240	1200	1425
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	15.52	16.32	17.65	17.33	14.84	15.52	16.27	18.01
Turbidity (NTU)	N/A	N/A	--	--	--	80.7	23.5	9.79	11.25	10.0	25.2	5.88	12.9

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-6: Downgradient Well (East Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/30/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.073**	**0.036**	**0.012** J	**0.044**	**0.034**	**0.048**	**0.060**	**0.040**
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	**0.0005** J	**0.0004** J	**0.0005** J	**0.0004** J	<0.0003	**0.0004** J	**0.0004** J	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	**0.002** J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	**0.06** J	**0.11** J	**0.05** J	**0.05** J	<0.05	**0.09** J	**0.09** J	**0.13** J
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**1.80**	**1.76**	**1.76**	**2.00**	**1.76**	**1.70**	**1.92**	**2.20**
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	**0.01** J	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.02** J	**0.01** J	**0.02** J	**0.02** J	**0.01** J,B	**0.02** J,B	**0.02** J	**0.03** J,B
Chloride	0.05	0.25	9.08	--	--	**6.57**	**7.08**	**6.77**	**7.30**	**6.76**	**6.71**	**6.77**	**8.30**
Hardness	3	10	119.7	--	--	**177.84**	**160.74**	**160.74**	**147.06**	**153.9**	**160.74**	**162.45**	**155.61**
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	**164.38**	**161.68**	**150.95**	**135.51**	**153.43**	**154.55**	**154.31**	**165.83**
Total Dissolved Solids (TDS)	10	10	161	--	--	**285.5**	**316.5**	**332.0**	**266.5**	**267.0**	**271.5**	**289.0** H	**272.1**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	373	358	391	384	377	388	375	397
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	214.51	212.79	213.54	213.32	214.77	215.23	211.69	210.89
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.70	5.71	7.23	5.76	5.76	5.73	5.85	5.78
Sample Time (hours)	N/A	N/A	--	--	--	1545	1325	1605	1315	1310	1405	1245	1310
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	16.13	17.1	16.71	16.04	15.00	16.39	16.22	17.60
Turbidity (NTU)	N/A	N/A	--	--	--	31.4	9.58	18.2	6.83	5.17	5.56	2.93	7.74

Notes:
µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-7: Downgradient Well (East Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/12/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	0.206	0.232	0.222	0.238	0.211	0.276	0.270	0.224
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.400	0.401	0.406	0.249	0.340	0.422	0.624	0.587
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	0.002 J	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	0.21 J	0.78	0.93	0.77	0.64	1.37	1.22	1.14
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	1.36	1.54	1.57	1.66	1.50	1.62	1.56	1.61
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	0.106	0.120	0.130	0.094	0.107	0.112	0.105	0.118
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	0.017	0.012	0.022	0.014	0.021	0.021	0.020	0.012
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	0.45	0.49	0.44	0.42	0.46	0.51	0.52	0.49
Chloride	0.05	0.25	9.08	--	--	4.62	4.94	4.63	4.87	4.49	4.51	4.46	5.08
Hardness	3	10	119.7	--	--	273.60	280.44	273.60	256.50	318.06	290.70	304.38	297.54
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	0.02 J	0.06	<0.01	<0.01	0.03 J	0.02 J
Sulfate	0.06	0.30	8.44	--	--	60.82	59.02	50.80	59.05	59.68	59.31	56.23	55.54
Total Dissolved Solids (TDS)	10	10	161	--	--	330.0	348.5	352.0	339.0	363.5	353.0	354.0 H	342.0
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	544	544	565	560	588	594	532	603
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	233.92	232.93	233.60	233.44	234.27	234.19	232.77	232.50
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	7.95	7.71	7.86	7.58	7.61	7.58	7.54	7.32
Sample Time (hours)	N/A	N/A	--	--	--	1025	1410	1100	1405	1450	1500	1255	1425
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	14.52	15.98	15.64	15.46	14.42	15.00	15.68	16.68
Turbidity (NTU)	N/A	N/A	--	--	--	22.3	11.7	4.93	17.17	12.3	8.97	7.20	17.2

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-8: Downgradient Well (East Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	0.042	0.035	0.032	0.036	0.024	0.029	0.029	0.049
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.579	0.650	0.359	0.611	0.603	0.932	1.537	0.794
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	1.44	2.44	2.33	2.11	1.36	2.12	2.46	3.29
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	1.48	1.42	1.22	1.39	1.15	1.18	1.38	1.47
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	0.039	0.021	0.011	0.009	0.014	0.021	0.017	0.044
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002 J	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	1.07	1.41	1.37	1.30	1.17	0.98	1.36	1.17
Chloride	0.05	0.25	9.08	--	--	13.21	14.97	14.15	14.34	13.95	13.47	13.15	13.91
Hardness	3	10	119.7	--	--	453.15	487.35	513.00	530.70	589.95	632.70	598.50	564.30
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	0.01 J	<0.01	<0.01	<0.01	0.02 J
Sulfate	0.06	0.30	8.44	--	--	120.33	115.57	111.33	120.81	104.41	91.93	125.29	131.37
Total Dissolved Solids (TDS)	10	10	161	--	--	611.5	639.0	665.5	653.5	647.5	653.0	700.0 H	701.0
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	943	947	1051	1034	1042	992	1095	1095
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	233.08	231.40	231.86	232.38	233.12	232.78	230.95	231.43
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	7.18	7.32	7.89	7.02	7.35	7.31	7.39	7.20
Sample Time (hours)	N/A	N/A	--	--	--	1635	1515	1140	1415	1430	1550	1345	1315
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	13.48	14.36	14.87	15.20	12.67	13.19	14.28	15.90
Turbidity (NTU)	N/A	N/A	--	--	--	78.2	7.49	8.71	9.34	14.8	3.57	3.10	2.08

Notes:
µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-9: Downgradient Well (North Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	NS	NS	NS	NS	NS	NS	NS	NS
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	NS	NS	NS	NS	NS	NS	NS	NS
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	NS	NS	NS	NS	NS	NS	NS	NS
Chromium (hexavalent)	0.005	0.005	0.005	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	NS	NS	NS	NS	NS	NS	NS	NS
Iron, Dissolved	0.05	0.25	0.47	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	NS	NS	NS	NS	NS	NS	NS	NS
Manganese, Dissolved	0.02	0.05	0.30	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	NS	NS	NS	NS	NS	NS	NS	NS
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	NS	NS	NS	NS	NS	NS	NS	NS
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium, Dissolved	0.001	0.005	0.013	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	NS	NS	NS	NS	NS	NS	NS	NS
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	NS	NS	NS	NS	NS	NS	NS	NS
Chloride	0.05	0.25	9.08	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Hardness	3	10	119.7	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate	0.01	0.05	0.30	10	5	NS	NS	NS	NS	NS	NS	NS	NS
Sulfate	0.06	0.30	8.44	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Total Dissolved Solids (TDS)	10	10	161	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	NS	NS	NS	NS	NS	NS	NS	NS
Sample Time (hours)	N/A	N/A	--	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	NS	NS	NS	NS	NS	NS	NS	NS
Turbidity (NTU)	N/A	N/A	--	--	--	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NS = Not sampled due to insufficient water in well.
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-10: Downgradient Well (North Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/12/2013	6/4/2013	7/30/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	**0.004** J	**0.005** J	**0.003** J	<0.002	**0.003** J	**0.004** J	**0.006** J	**0.003** J
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	**0.176**	**0.176**	**0.980**	**0.096**	**0.140**	**0.127**	**0.209**	**0.224**
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	**0.016**	<0.005	<0.025	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	**6.02**	**12.34**	**13.15**	**10.90**	**12.94**	**13.60**	**11.31**	**14.78**
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	**4.10**	**4.66**	**4.37**	**7.37**	**3.74**	**3.69**	**3.14**	**3.17**
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001** J	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001** J	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	**0.78**	**1.04**	**0.91**	**0.76**	**0.92**	**1.23**	**1.08**	**1.16**
Chloride	0.05	0.25	9.08	--	--	**12.32**	**13.55**	**13.25**	**13.45**	**13.40**	**13.32**	**13.36**	**14.10**
Hardness	3	10	119.7	--	--	**198.36**	**194.94**	**196.65**	**253.08**	**225.72**	**239.40**	**225.72**	**239.40**
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	**0.04** J	**0.03** J	<0.01
Sulfate	0.06	0.30	8.44	--	--	**24.60**	**25.31**	**20.78**	**23.14**	**26.02**	**24.06**	**24.72**	**24.26**
Total Dissolved Solids (TDS)	10	10	161	--	--	**267.0**	**284.5**	**283.0**	**280.5**	**272.5**	**289.5**	**294.0** H	**302.5**
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	461	470	512	521	501	508	491	523
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	234.80	233.30	234.32	234.40	234.90	234.58	233.85	233.90
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	6.58	7.33	6.33	6.35	6.32	6.26	6.47	6.24
Sample Time (hours)	N/A	N/A	--	--	--	1320	1550	1615	1300	1515	1610	1430	1525
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	14.90	16.38	16.90	14.96	13.25	15.08	15.94	16.91
Turbidity (NTU)	N/A	N/A	--	--	--	67.9	48.0	140	8.25	81.3	65.0	59.8	20.7

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-12: Downgradient Well (West Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.139	0.125	0.115	0.100	0.038	0.134	0.154	0.142
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	**0.001** J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	2.05	2.66	2.97	3.36	1.96	1.78	2.36	3.04
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	**0.003** J	**0.001** J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	0.43	0.51	0.55	0.54	0.49	0.53	0.47	0.54
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.001** J	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	**0.01** J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	0.07	0.06	0.06	0.06	0.05	0.05	0.06	0.08 ,B
Chloride	0.05	0.25	9.08	--	--	12.32	13.11	13.56	14.94	14.74	14.44	14.34	15.47
Hardness	3	10	119.7	--	--	164.16	160.74	172.71	174.42	222.30	118.10	177.84	184.68
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01** J	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	158.08	147.71	148.52	144.95	152.69	152.75	142.60	163.34
Total Dissolved Solids (TDS)	10	10	161	--	--	295.5	329.0	343.0	320.0	309.5	305.5	303.0 H	294.5
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	420	416	458	468	439	430	406	418
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	203.71	202.33	202.68	202.54	206.07	206.61	201.83	201.33
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.94	6.41	5.68	5.89	5.76	5.63	6.25	5.77
Sample Time (hours)	N/A	N/A	--	--	--	1255	1230	1215	1040	1130	1200	1220	1105
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	14.77	15.60	16.41	15.53	14.27	15.74	15.20	15.82
Turbidity (NTU)	N/A	N/A	--	--	--	8.48	8.00	9.40	2.62	7.19	11.9	9.15	4.68

Notes:
µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

MW-13: Downgradient Well (Metals Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/4/2013	7/31/2013	12/4/2013	2/26/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	0.110	0.122	0.104	0.157	0.067	0.056	0.310	0.239
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	0.0006 J	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	3.23	13.07	13.06	22.69	1.04	0.94	21.00	31.72
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	1.84	2.74	1.96	1.86	1.56	1.75	1.74	1.42
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	<0.0002	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	0.015 J	<0.01	<0.01	<0.01	0.012 J	<0.01	<0.01	<0.01
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	0.05	0.02 J	0.18	0.33	0.02 J,B	0.02 J,B	0.34	0.49
Chloride	0.05	0.25	9.08	--	--	25.41	71.10	59.81	77.30	19.31	21.10	82.01	113.83
Hardness	3	10	119.7	--	--	266.76	277.02	234.27	283.86	249.66	235.98	239.40	266.76
Nitrate	0.01	0.05	0.30	10	5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	0.06	0.30	8.44	--	--	215.71	204.16	154.56	136.74	202.32	185.25	153.45	153.80
Total Dissolved Solids (TDS)	10	10	161	--	--	411.0	483.0	414.5	406.0	369.0	368.5	439.0 H	481.5
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	568	644	628	630	538	497	640	678
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	212.45	207.27	207.95	208.82	211.77	213.82	206.22	206.22
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	5.69	6.49	5.62	5.80	5.70	5.45	6.10	5.79
Sample Time (hours)	N/A	N/A	--	--	--	1350	1415	1330	1205	1335	1330	1410	1240
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	13.18	13.82	15.32	15.21	12.30	13.20	14.89	15.47
Turbidity (NTU)	N/A	N/A	--	--	--	40.3	74.0	9.70	8.40	11.9	9.70	6.94	6.78

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 1
Summary of Groundwater Monitoring Data
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

W-3: Downgradient Well (North Ash Pond)

Parameter Name	LOD	LOQ	BKGD	EPA MCL	VGQS	3/11/2013	6/20/2013	7/30/2013	12/4/2013	2/27/2014	5/20/2014	7/16/2014	10/1/2014
Dissolved Metals (mg/L)													
Arsenic, Dissolved	0.002	0.010	0.010	0.010	0.050	NS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium, Dissolved	0.003	0.015	0.030	2.0	1.0	NS	0.209	0.100	0.053	0.102	0.111	0.055	0.045
Cadmium, Dissolved	0.0003	0.0015	0.0015	0.005	0.0004	NS	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium, Dissolved	0.001	0.005	0.005	0.100	0.050	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (hexavalent)	0.005	0.005	0.005	--	--	NS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper, Dissolved	0.001	0.005	0.005	1.3	1.0	NS	**0.004** J	<0.001	<0.001	<0.001	**0.002** J	<0.001	<0.001
Iron, Dissolved	0.05	0.25	0.47	--	--	NS	**0.09** J	<0.05	3.14	2.77	2.18	10.62	10.58
Lead, Dissolved	0.001	0.005	0.005	0.015	0.05	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, Dissolved	0.02	0.05	0.30	--	--	NS	5.42	1.73	6.31	5.31	3.72	7.89	7.60
Mercury, Dissolved	0.00002	0.0001	0.0001	0.002	0.00005	NS	<0.0002	<0.0002	<0.0002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum, Dissolved	0.001	0.005	0.005	--	--	NS	<0.001	<0.001	<0.001	**0.002** J	<0.001	<0.001	<0.001
Selenium, Dissolved	0.002	0.010	0.010	0.050	0.010	NS	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver, Dissolved	0.0001	0.0004	0.0004	--	--	NS	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium, Dissolved	0.001	0.005	0.013	--	--	NS	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc, Dissolved	0.01	0.03	0.03	--	0.05	NS	<0.01	<0.01	**0.012** J	**0.021** J	**0.014** J	**0.011** J	0.041
Water Quality Parameters (mg/L)													
Ammonia as N	0.01	0.05	0.05	--	0.025	NS	0.25	0.19	0.21	0.08	0.16	0.17	0.20
Chloride	0.05	0.25	9.08	--	--	NS	11.44	16.21	21.56	19.42	15.67	21.28	24.36
Hardness	3	10	119.7	--	--	NS	342.00	273.60	164.16	212.04	177.84	171.00	177.84
Nitrate	0.01	0.05	0.30	10	5	NS	**0.02** J	0.38	**0.10**	0.98	**0.14**	**0.09**	**0.11**
Sulfate	0.06	0.30	8.44	--	--	NS	44.23	46.66	21.95	20.65	40.30	9.17	10.00
Total Dissolved Solids (TDS)	10	10	161	--	--	NS	415.5	308.5	252.5	297.5	252.5	238.0 H	252.0
Field Measurements													
Conductivity (µS/cm)	N/A	N/A	--	--	--	NS	600	511	454	479	461	446	450
Groundwater Elevation (ft msl)	N/A	N/A	--	--	--	NS	242.91	251.33	247.51	248.86	248.51	251.81	241.06
pH (S.U.)	N/A	N/A	4.9-7.4	--	5.5-8.5	NS	6.05	5.61	5.99	6.55	5.96	6.03	6.04
Sample Time (hours)	N/A	N/A	--	--	--	NS	1110	1500	1340	1215	1630	1500	1520
Temperature (Degrees Celsius)	N/A	N/A	--	--	--	NS	16.69	18.87	15.73	12.19	16.33	16.55	16.61
Turbidity (NTU)	N/A	N/A	--	--	--	NS	514	--	--	273	229	--	57.1

Notes:

µS/cm = MicroSiemens per centimeter.
BKGD = Site-specific background value based on upgradient wells
EPA = Environmental Protection Agency
ft msl = feet above mean sea level
LOD = Limit of detection
LOQ = Limit of quanitation
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
mg/L = Milligrams per liter
N/A = Not applicable
NS = Not sampled
NTU = Nephelometric Turbidity Units
S.U. = Standard Units
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

Data Qualifiers:
B = Not detected substantially above the level reported in laboratory or field blanks.
H = Holding time exceeded by one day.
J = Concentration is between LOD and LOQ, and is considered estimated.

underline = Exceedance of site-specific background
= Exceedance of MCL
= Exceedance of VGQS

Table 2
Summary of Water Quality Comparisons
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well	Management Unit	Hydraulic Position	Exceedance of Background	MCL Exceedance	VGQS Exceedance
Arsenic, dissolved	MW-7	East Ash Pond	Downgradient	***Yes***	***Yes***	***Yes***
	MW-8	East Ash Pond	Downgradient	***Yes***	***Yes***	No
Barium, dissolved	MW-2	West Ash Pond	Downgradient	***Yes***	No	No
	MW-3	West Ash Pond	Downgradient	***Yes***	No	No
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	No	No
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	No	No
	MW-6	East Ash Pond	Downgradient	***Yes***	No	No
	MW-7	East Ash Pond	Downgradient	***Yes***	No	No
	MW-8	East Ash Pond	Downgradient	***Yes***	No	***Yes***
	MW-10	North Ash Pond	Downgradient	***Yes***	No	No
	MW-12	West Ash Pond	Downgradient	***Yes***	No	No
	MW-13	Metals Pond	Downgradient	***Yes***	No	No
	W-3	North Ash Pond	Downgradient	***Yes***	No	No
Cadimum, dissolved	MW-6	East Ash Pond	Downgradient	No	No	***Yes***
	MW-13	Metals Pond	Downgradient	No	No	***Yes***
Iron, dissolved	MW-3	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
Manganese, dissolved	MW-2	West Ash Pond	Downgradient	***Yes***	--	--
	MW-3	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-6	East Ash Pond	Downgradient	***Yes***	--	--
	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
Vanadium, dissolved	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
Zinc, dissolved	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	***Yes***
Ammonia as N	MW-3	West Ash Pond	Downgradient	No	--	***Yes***
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	***Yes***
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	***Yes***
	MW-6	East Ash Pond	Downgradient	No	--	***Yes***
	MW-7	East Ash Pond	Downgradient	***Yes***	--	***Yes***
	MW-8	East Ash Pond	Downgradient	***Yes***	--	***Yes***
	MW-10	North Ash Pond	Downgradient	***Yes***	--	***Yes***
	MW-12	West Ash Pond	Downgradient	***Yes***	--	***Yes***
	MW-13	Metals Pond	Downgradient	***Yes***	--	***Yes***
	W-3	North Ash Pond	Downgradient	***Yes***	--	***Yes***

Table 2
Summary of Water Quality Comparisons
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well	Management Unit	Hydraulic Position	Exceedance of Background	MCL Exceedance	VGQS Exceedance
Chloride	MW-2	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
Hardness	MW-2	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-6	East Ash Pond	Downgradient	***Yes***	--	--
	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
Sulfate	MW-2	West Ash Pond	Downgradient	***Yes***	--	--
	MW-3	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-6	East Ash Pond	Downgradient	***Yes***	--	--
	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
Total Dissolved Solids (TDS)	MW-2	West Ash Pond	Downgradient	***Yes***	--	--
	MW-4	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	--
	MW-6	East Ash Pond	Downgradient	***Yes***	--	--
	MW-7	East Ash Pond	Downgradient	***Yes***	--	--
	MW-8	East Ash Pond	Downgradient	***Yes***	--	--
	MW-10	North Ash Pond	Downgradient	***Yes***	--	--
	MW-12	West Ash Pond	Downgradient	***Yes***	--	--
	MW-13	Metals Pond	Downgradient	***Yes***	--	--
	W-3	North Ash Pond	Downgradient	***Yes***	--	--
pH	MW-1	West Ash Pond	Upgradient	No	--	***Yes***
	MW-2	West Ash Pond	Downgradient	***Yes***	--	No
	MW-5	Storm Water Mgmt. Pond	Downgradient	***Yes***	--	No
	MW-7	East Ash Pond	Downgradient	***Yes***	--	No
	MW-8	East Ash Pond	Downgradient	***Yes***	--	No

Notes:
MCL = Maximum Contaminant Level (National Primary Drinking Water Standards)
VGQS = Virginia Groundwater Quality Standard (9 VAC 25-280)

APPENDIX A

HISTORICAL 2006 GROUNDWATER MONITORING DATA

Table 1
Bremo Power Station
Groundwater Monitoring Data Report for April 7, 2006

Parameter Name	Units	LOD	LOQ	ASH WELL	ASH WELL DUP	REC WELL	FIELD BLANK	TRIP BLANK
BARIUM AS BA	mg/L	0.04	0.20	**0.17 J**	**0.17 J**	<0.04	<0.04	<0.04
CONDUCTIVITY	UMHOS	N/A	N/A	392	391	71	5	--
DEPTH TO WATER	FEET	N/A	N/A	7.9	7.9	--	--	--
IRON AS FE	mg/L	0.05	0.25	**0.32**	**0.30**	**2.05**	<0.05	<0.05
MAGNESIUM AS MG	mg/L	0.01	0.05	**10.59**	**11.65**	**1.17**	**0.03 J**	<0.01
MANGANESE AS MN	mg/L	0.02	0.1	**1.07**	**0.92**	<0.02	<0.02	<0.02
pH	S.U.	N/A	N/A	5.78	5.77	6.02	6.65	--
SELENIUM AS SE	mg/L	0.003	0.01	<0.003	<0.003	<0.003	<0.003	<0.003
SULFATE SO4	mg/L	0.06	0.3	**88.77**	**87.49**	**0.54**	**0.35**	<0.06
TEMPERATURE	DEGREES C	N/A	N/A	13.97	13.98	15.16	21.49	--
TIME SAMPLE TAKEN	HOURS	N/A	N/A	1020	1021	940	930	--
TOTAL DISSOLVED SOLIDS	mg/L	10	50	**262**	**264**	**93**	<10	<10

Notes:
Degrees C = Degrees Celsius.
J = Concentration is between LOD and LOQ, and is considered estimated.
LOD = Limit of Detection.
LOQ = Limit of Quantitation.
mg/L = Milligrams per liter.
N/A = Not applicable.
S.U. = Standard Units.
UMHOS = Micromhos.
Bold = Detected parameter.

APPENDIX B

SUMMARY OF BACKGROUND DEVELOPMENT

Appendix B
Summary of Background Development
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well ID	Gradient	# of Samples	# of Detections	Min	Max	Current LOQ	Background Value	Comment
Arsenic, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.010	0.010	Arsenic was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	8	0.206	0.276			
	MW-8	Down	8	8	0.024	0.049			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	7	ND	0.010			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Barium, Dissolved (mg/L)	MW-1	Up	8	8	0.012	0.026	0.015	0.030	Background based on normal Kaplan Meier 95% upper tolerance limit.
	MW-11	Up	8	6	ND	0.024			
	MW-2	Down	8	8	0.016	0.081			
	MW-3	Down	8	8	0.052	0.448			
	MW-4	Down	8	8	0.028	0.095			
	MW-5	Down	8	8	0.038	0.491			
	MW-6	Down	8	8	0.012	0.073			
	MW-7	Down	8	8	0.249	0.624			
	MW-8	Down	8	8	0.359	1.537			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	0.096	0.980			
	MW-12	Down	8	8	0.038	0.154			
	MW-13	Down	8	8	0.056	0.310			
	W-3	Down	7	7	0.045	0.209			
Cadmium, Dissolved (mg/L)	MW-1	Up	8	1	ND	0.0003	0.0015	0.0015	Cadmium was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	1	ND	0.0003			
	MW-3	Down	8	2	ND	0.0004			
	MW-4	Down	8	1	ND	0.0003			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	6	ND	0.0005			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	1	ND	0.0006			
	W-3	Down	7	0	ND	ND			
Chromium, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.005	0.005	Chromium was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	1	ND	0.002			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	1	ND	0.001			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Chromium (hexavalent) (mg/L)	MW-1	Up	8	0	ND	ND	0.005	0.005	Hexavalent chromium was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	1	ND	0.007			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	1	ND	0.016			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			

Appendix B
Summary of Background Development
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well ID	Gradient	# of Samples	# of Detections	Min	Max	Current LOQ	Background Value	Comment
Copper, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.005	0.005	Copper was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	1	ND	0.003			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	1	ND	0.002			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	2	ND	0.004			
Iron, Dissolved (mg/L)	MW-1	Up	8	1	ND	0.47	0.25	0.47	Background based on non-parametric upper tolerance limit.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	5	ND	0.17			
	MW-3	Down	8	8	0.09	0.95			
	MW-4	Down	8	8	2.98	21.09			
	MW-5	Down	8	8	6.46	9.74			
	MW-6	Down	8	7	ND	0.13			
	MW-7	Down	8	8	0.21	1.37			
	MW-8	Down	8	8	1.36	3.29			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	6.02	14.78			
	MW-12	Down	8	8	1.78	3.36			
	MW-13	Down	8	8	0.94	31.72			
	W-3	Down	7	6	ND	10.62			
Lead, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.005	0.005	Lead was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	2	ND	0.003			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Manganese, Dissolved (mg/L)	MW-1	Up	8	8	0.07	0.15	0.05	0.30	Background based on normal Kaplan Meier 95% upper tolerance limit.
	MW-11	Up	8	5	ND	0.30			
	MW-2	Down	8	8	0.53	0.76			
	MW-3	Down	8	8	0.45	0.67			
	MW-4	Down	8	8	7.74	11.78			
	MW-5	Down	8	8	1.02	1.31			
	MW-6	Down	8	8	1.70	2.20			
	MW-7	Down	8	8	1.36	1.66			
	MW-8	Down	8	8	1.15	1.48			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	3.14	7.37			
	MW-12	Down	8	8	0.43	0.55			
	MW-13	Down	8	8	1.42	2.74			
	W-3	Down	7	7	1.73	7.89			
Mercury, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.0001	0.0001	Mercury was not detected above the LOQ. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			

Appendix B
Summary of Background Development
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well ID	Gradient	# of Samples	# of Detections	Min	Max	Current LOQ	Background Value	Comment
Molybdenum, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.005	0.005	Molybdenum was not detected above the LOQ in background wells. Background value set to current LOQ.
	MW-11	Up	8	1	ND	0.002			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	8	0.094	0.130			
	MW-8	Down	8	8	0.009	0.044			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	1	ND	0.001			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	1	ND	0.002			
Selenium, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.010	0.010	Selenium was not detected above the LOQ. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	1	ND	0.002			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Silver, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.0004	0.0004	Silver was not detected above the LOQ. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	0	ND	ND			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Vanadium, Dissolved (mg/L)	MW-1	Up	8	1	ND	0.002	0.005	0.013	Background based on normal Kaplan Meier 95% upper tolerance limit.
	MW-11	Up	8	8	0.005	0.011			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	0	ND	ND			
	MW-4	Down	8	0	ND	ND			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	8	0.012	0.022			
	MW-8	Down	8	1	ND	0.002			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	1	ND	0.001			
	MW-12	Down	8	1	ND	0.001			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	0	ND	ND			
Zinc, Dissolved (mg/L)	MW-1	Up	8	0	ND	ND	0.03	0.03	Zinc was not detected above the LOQ. Background value set to current LOQ.
	MW-11	Up	8	0	ND	ND			
	MW-2	Down	8	1	ND	0.011			
	MW-3	Down	8	2	ND	0.010			
	MW-4	Down	8	8	0.031	0.061			
	MW-5	Down	8	0	ND	ND			
	MW-6	Down	8	1	ND	0.010			
	MW-7	Down	8	0	ND	ND			
	MW-8	Down	8	0	ND	ND			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	0	ND	ND			
	MW-12	Down	8	1	ND	0.010			
	MW-13	Down	8	2	ND	0.015			
	W-3	Down	7	5	ND	0.041			

Appendix B
Summary of Background Development
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well ID	Gradient	# of Samples	# of Detections	Min	Max	Current LOQ	Background Value	Comment
Ammonia (mg/L)	MW-1	Up	8	7	ND	0.02	0.05	0.05	Ammonia was not detected above the LOQ. Background value set to current LOQ.
	MW-11	Up	8	6	ND	0.02			
	MW-2	Down	8	7	ND	0.02			
	MW-3	Down	8	8	0.01	0.03			
	MW-4	Down	8	8	0.13	0.36			
	MW-5	Down	8	8	0.44	0.70			
	MW-6	Down	8	8	0.01	0.03			
	MW-7	Down	8	8	0.42	0.52			
	MW-8	Down	8	8	0.98	1.41			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	0.76	1.23			
	MW-12	Down	8	8	0.05	0.08			
	MW-13	Down	8	8	0.02	0.49			
	W-3	Down	7	7	0.08	0.25			
Chloride (mg/L)	MW-1	Up	8	8	1.88	2.71	0.25	9.08	Background based on non-parametric upper tolerance limit.
	MW-11	Up	8	8	8.12	9.08			
	MW-2	Down	8	8	11.65	16.91			
	MW-3	Down	8	8	3.99	4.81			
	MW-4	Down	8	8	12.20	14.99			
	MW-5	Down	8	8	8.72	10.15			
	MW-6	Down	8	8	6.57	8.30			
	MW-7	Down	8	8	4.46	5.08			
	MW-8	Down	8	8	13.15	14.97			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	12.32	14.1			
	MW-12	Down	8	8	12.32	15.47			
	MW-13	Down	8	8	19.31	113.83			
	W-3	Down	7	7	11.44	24.36			
Hardness (mg/L)	MW-1	Up	8	8	13.68	29.07	10	119.7	Background based on non-parametric upper tolerance limit.
	MW-11	Up	8	8	99.18	119.70			
	MW-2	Down	8	8	153.90	184.68			
	MW-3	Down	8	8	39.33	63.27			
	MW-4	Down	8	8	1248.30	2009.25			
	MW-5	Down	8	8	150.48	205.20			
	MW-6	Down	8	8	147.06	177.84			
	MW-7	Down	8	8	256.50	318.06			
	MW-8	Down	8	8	453.15	632.70			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	194.94	253.08			
	MW-12	Down	8	8	118.10	222.30			
	MW-13	Down	8	8	234.27	283.86			
	W-3	Down	7	7	164.16	342.00			
Nitrate (mg/L)	MW-1	Up	8	8	0.06	0.17	0.05	0.30	Background based on lognormal 95% upper tolerance limit.
	MW-11	Up	8	8	0.03	0.05			
	MW-2	Down	8	0	ND	ND			
	MW-3	Down	8	6	ND	0.20			
	MW-4	Down	8	1	ND	0.04			
	MW-5	Down	8	1	ND	0.02			
	MW-6	Down	8	0	ND	ND			
	MW-7	Down	8	5	ND	0.06			
	MW-8	Down	8	2	ND	0.02			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	2	ND	0.04			
	MW-12	Down	8	1	ND	0.01			
	MW-13	Down	8	0	ND	ND			
	W-3	Down	7	7	0.02	0.98			
Sulfate (mg/L)	MW-1	Up	8	8	1.32	2.32	0.30	8.44	Background based on non-parametric upper tolerance limit.
	MW-11	Up	8	8	5.90	8.44			
	MW-2	Down	8	8	121.81	171.18			
	MW-3	Down	8	8	31.12	42.79			
	MW-4	Down	8	8	1075.46	1415.19			
	MW-5	Down	8	8	3.21	9.12			
	MW-6	Down	8	8	135.51	165.83			
	MW-7	Down	8	8	50.80	60.82			
	MW-8	Down	8	8	91.93	131.37			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	20.78	26.02			
	MW-12	Down	8	8	142.60	163.34			
	MW-13	Down	8	8	136.74	215.71			
	W-3	Down	7	7	9.17	46.66			

Appendix B
Summary of Background Development
Bremo Power Station, Bremo Bluff, VA
VPDES Permit No. VA0004138

Parameter	Well ID	Gradient	# of Samples	# of Detections	Min	Max	Current LOQ	Background Value	Comment
Total Dissolved Solids (mg/L)	MW-1	Up	8	8	29.5	51.0	10	161.0	Background based on non-parametric upper tolerance limit.
	MW-11	Up	8	8	129.5	161.0			
	MW-2	Down	8	8	262.5	352.0			
	MW-3	Down	8	8	113.0	151.5			
	MW-4	Down	8	8	1791.5	2346.5			
	MW-5	Down	8	8	201.5	226.0			
	MW-6	Down	8	8	266.5	332.0			
	MW-7	Down	8	8	330.0	363.5			
	MW-8	Down	8	8	611.5	701.0			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	267.0	302.5			
	MW-12	Down	8	8	294.5	343.0			
	MW-13	Down	8	8	368.5	483.0			
	W-3	Down	7	7	238.0	415.5			
pH (S.U.)	MW-1	Up	8	8	5.45	6.03	--	4.9-7.4	Background based on parametric two-tailed tolerance interval.
	MW-11	Up	8	8	6.01	7.19			
	MW-2	Down	8	8	5.59	7.51			
	MW-3	Down	8	8	4.92	5.67			
	MW-4	Down	8	8	5.68	7.17			
	MW-5	Down	8	8	6.41	7.83			
	MW-6	Down	8	8	5.70	7.23			
	MW-7	Down	8	8	7.32	7.95			
	MW-8	Down	8	8	7.02	7.89			
	MW-9	Down	0	0	--	--			
	MW-10	Down	8	8	6.24	7.33			
	MW-12	Down	8	8	5.63	6.41			
	MW-13	Down	8	8	5.45	6.49			
	W-3	Down	7	7	5.61	6.55			

Notes:
µg/L = Micrograms per liter
ND = Non-detect
LOQ = Limit of quantitation

APPENDIX C

STATISTICAL BACKGROUND CALCULATIONS

Concentrations (mg/L)

Parameter: Arsenic, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.01	ND<0.01
			6/4/2013	ND<0.01	ND<0.01
			7/30/2013	ND<0.01	ND<0.01
			12/4/2013	ND<0.01	ND<0.01
			2/26/2014	ND<0.01	ND<0.01
			5/20/2014	ND<0.01	ND<0.01
			7/16/2014	ND<0.01	ND<0.01
			10/1/2014	ND<0.01	ND<0.01
MW-11	8	8 (100%)	3/12/2013	ND<0.01	ND<0.01
			6/4/2013	ND<0.01	ND<0.01
			7/31/2013	ND<0.01	ND<0.01
			12/4/2013	ND<0.01	ND<0.01
			2/27/2014	ND<0.01	ND<0.01
			5/20/2014	ND<0.01	ND<0.01
			7/16/2014	ND<0.01	ND<0.01
			10/1/2014	ND<0.01	ND<0.01

Non-Parametric Tolerance Interval

Parameter: Arsenic, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 77.6699%
Background measurements (n) = 16
Maximum Background Concentration = 0.01 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.010 mg/L

Concentrations (mg/L)

Parameter: Barium, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 12.5%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	0.023	0.023
			6/4/2013	0.017	0.017
			7/30/2013	0.016	0.016
			12/4/2013	0.013 J	0.013 J
			2/26/2014	0.012 J	0.012 J
			5/20/2014	0.017	0.017
			7/16/2014	0.026	0.026
			10/1/2014	0.014 J	0.014 J
MW-11	8	2 (25%)	3/12/2013	0.007 J	0.007 J
			6/4/2013	0.008 J	0.008 J
			7/31/2013	0.008 J	0.008 J
			12/4/2013	ND<0.015	ND<0.015
			2/27/2014	ND<0.015	ND<0.015
			5/20/2014	0.004 J	0.004 J
			7/16/2014	0.008 J	0.008 J
			10/1/2014	0.024	0.024

Barium, Dissolved (mg/L)

General Statistics

Total Number of Observations	16	Number of Missing Observations	0
Number of Distinct Observations	12		
Number of Detects	14	Number of Non-Detects	2
Number of Distinct Detects	11	Number of Distinct Non-Detects	1
Minimum Detect	0.004	Minimum Non-Detect	0.015
Maximum Detect	0.026	Maximum Non-Detect	0.015
Variance Detected	4.6841E-5	Percent Non-Detects	12.5%
Mean Detected	0.0141	SD Detected	0.00684
Mean of Detected Logged Data	-4.388	SD of Detected Logged Data	0.543

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.941	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.17	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan Meier (KM) Background Statistics Assuming Normal Distribution

Mean	0.0135	SD	0.00647
95% UTL95% Coverage	0.0298	95% KM UPL (t)	0.0252
90% KM Percentile (z)	0.0218	95% KM Percentile (z)	0.0241
99% KM Percentile (z)	0.0285	95% KM USL	0.0293

DL/2 Substitution Background Statistics Assuming Normal Distribution

Mean	0.0133	SD	0.00676
95% UTL95% Coverage	0.0303	95% UPL (t)	0.0255
90% Percentile (z)	0.0219	95% Percentile (z)	0.0244
99% Percentile (z)	0.029	95% USL	0.0298

UTL = 0.030 mg/L

Concentrations (mg/L)

Parameter: Cadmium, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 93.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	7 (87.5%)	3/11/2013	0.0003 J	0.0003 J
			6/4/2013	ND<0.0015	ND<0.0015
			7/30/2013	ND<0.0015	ND<0.0015
			12/4/2013	ND<0.0015	ND<0.0015
			2/26/2014	ND<0.0015	ND<0.0015
			5/20/2014	ND<0.0015	ND<0.0015
			7/16/2014	ND<0.0015	ND<0.0015
			10/1/2014	ND<0.0015	ND<0.0015
MW-11	8	8 (100%)	3/12/2013	ND<0.0015	ND<0.0015
			6/4/2013	ND<0.0015	ND<0.0015
			7/31/2013	ND<0.0015	ND<0.0015
			12/4/2013	ND<0.0015	ND<0.0015
			2/27/2014	ND<0.0015	ND<0.0015
			5/20/2014	ND<0.0015	ND<0.0015
			7/16/2014	ND<0.0015	ND<0.0015
			10/1/2014	ND<0.0015	ND<0.0015

Non-Parametric Tolerance Interval

Parameter: Cadmium, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 88.3495%
Background measurements (n) = 16
Maximum Background Concentration = 0.0015 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.0015mg/L

Concentrations (mg/L)

Parameter: Chromium, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	8 (100%)	3/12/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/31/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/27/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005

Non-Parametric Tolerance Interval

Parameter: Chromium, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 98.0583%
Background measurements (n) = 16
Maximum Background Concentration = 0.005 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.005 mg/L

Concentrations (mg/L)

Parameter: Chromium (hexavalent)
Original Data (Not Transformed)
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	8 (100%)	3/12/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/31/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/27/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005

Non-Parametric Tolerance Interval

Parameter: Chromium (hexavalent)
Original Data (Not Transformed)

Total Percent Non-Detects = 98.0583%
Background measurements (n) = 16
Maximum Background Concentration = 0.005 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.005 mg/L

Concentrations (mg/L)

Parameter: Copper, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	8 (100%)	3/12/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/31/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/27/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005

Non-Parametric Tolerance Interval

Parameter: Copper, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 96.1165%
Background measurements (n) = 16
Maximum Background Concentration = 0.005 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.005 mg/L

Concentrations (mg/L)

Parameter: Iron, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 93.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	7 (87.5%)	3/11/2013	ND<0.25	ND<0.25
			6/4/2013	ND<0.25	ND<0.25
			7/30/2013	ND<0.25	ND<0.25
			12/4/2013	ND<0.25	ND<0.25
			2/26/2014	ND<0.25	ND<0.25
			5/20/2014	ND<0.25	ND<0.25
			7/16/2014	ND<0.25	ND<0.25
			10/1/2014	0.47	0.47
MW-11	8	8 (100%)	3/12/2013	ND<0.25	ND<0.25
			6/4/2013	ND<0.25	ND<0.25
			7/31/2013	ND<0.25	ND<0.25
			12/4/2013	ND<0.25	ND<0.25
			2/27/2014	ND<0.25	ND<0.25
			5/20/2014	ND<0.25	ND<0.25
			7/16/2014	ND<0.25	ND<0.25
			10/1/2014	ND<0.25	ND<0.25

Non-Parametric Tolerance Interval

Parameter: Iron, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 19.4175%
Background measurements (n) = 16
Maximum Background Concentration = 0.47
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.47 mg/L

Concentrations (mg/L)

Parameter: Lead, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	NO	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	8 (100%)	3/12/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/31/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/27/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005

Non-Parametric Tolerance Interval

Parameter: Lead, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 98.0583%
Background measurements (n) = 16
Maximum Background Concentration = 0.005 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.005 mg/L

Concentrations (mg/L)

Parameter: Manganese, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Backgroudn Percent Non-Detects: 18.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	0.08	0.08
			6/4/2013	0.13	0.13
			7/30/2013	0.09	0.09
			12/4/2013	0.09	0.09
			2/26/2014	0.07	0.07
			5/20/2014	0.13	0.13
			7/16/2014	0.10	0.10
			10/1/2014	0.15	0.15
MW-11	8	3 (37.5%)	3/12/2013	0.30	0.30
			6/4/2013	0.22	0.22
			7/31/2013	0.15	0.15
			12/4/2013	0.02 J	0.02 J
			2/27/2014	0.02 J	0.02 J
			5/20/2014	ND<0.05	ND<0.05
			7/16/2014	ND<0.05	ND<0.05
			10/1/2014	ND<0.05	ND<0.05

Manganese, Dissolved (mg/L)

General Statistics

Total Number of Observations	16	Number of Missing Observations	0
Number of Distinct Observations	10		
Number of Detects	13	Number of Non-Detects	3
Number of Distinct Detects	9	Number of Distinct Non-Detects	1
Minimum Detect	0.02	Minimum Non-Detect	0.05
Maximum Detect	0.3	Maximum Non-Detect	0.05
Variance Detected	0.00589	Percent Non-Detects	18.75%
Mean Detected	0.119	SD Detected	0.0768
Mean of Detected Logged Data	-2.363	SD of Detected Logged Data	0.797

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.915	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.19	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan Meier (KM) Background Statistics Assuming Normal Distribution

Mean	0.101	SD	0.0769
95% UTL95% Coverage	0.295	95% KM UPL (t)	0.24
90% KM Percentile (z)	0.199	95% KM Percentile (z)	0.227
99% KM Percentile (z)	0.28	95% KM USL	0.289

UTL = 0.295 mg/L

Concentrations (mg/L)

Parameter: Mercury, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.001	ND<0.001
			6/4/2013	ND<0.001	ND<0.001
			7/30/2013	ND<0.001	ND<0.001
			12/4/2013	ND<0.001	ND<0.001
			2/26/2014	ND<0.0001	ND<0.0001
			5/20/2014	ND<0.0001	ND<0.0001
			7/16/2014	ND<0.0001	ND<0.0001
			10/1/2014	ND<0.0001	ND<0.0001
MW-11	8	8 (100%)	3/12/2013	ND<0.001	ND<0.001
			6/4/2013	ND<0.001	ND<0.001
			7/31/2013	ND<0.001	ND<0.001
			12/4/2013	ND<0.001	ND<0.001
			2/27/2014	ND<0.0001	ND<0.0001
			5/20/2014	ND<0.0001	ND<0.0001
			7/16/2014	ND<0.0001	ND<0.0001
			10/1/2014	ND<0.0001	ND<0.0001

Non-Parametric Tolerance Interval

Parameter: Mercury, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 100%
Background measurements (n) = 16
Maximum Background Concentration = 0.0001 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.0001 mg/L

Concentrations (mg/L)

Parameter: Molybdenum, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 93.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	7 (87.5%)	3/12/2013	0.002 J	0.002 J
			6/4/2013	ND<0.005	ND<0.005
			7/31/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/27/2014	ND<0.005	ND<0.005
			5/20/2014	ND<0.005	ND<0.005
			7/16/2014	ND<0.005	ND<0.005
			10/1/2014	ND<0.005	ND<0.005

Non-Parametric Tolerance Interval

Parameter: Molybdenum, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 81.5534%
Background measurements (n) = 16
Maximum Background Concentration = 0.005 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.005 mg/L

Concentrations (mg/L)

Parameter: Selenium, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.01	ND<0.01
			6/4/2013	ND<0.01	ND<0.01
			7/30/2013	ND<0.01	ND<0.01
			12/4/2013	ND<0.01	ND<0.01
			2/26/2014	ND<0.01	ND<0.01
			5/20/2014	ND<0.01	ND<0.01
			7/16/2014	ND<0.01	ND<0.01
			10/1/2014	ND<0.01	ND<0.01
MW-11	8	8 (100%)	3/12/2013	ND<0.01	ND<0.01
			6/4/2013	ND<0.01	ND<0.01
			7/31/2013	ND<0.01	ND<0.01
			12/4/2013	ND<0.01	ND<0.01
			2/27/2014	ND<0.01	ND<0.01
			5/20/2014	ND<0.01	ND<0.01
			7/16/2014	ND<0.01	ND<0.01
			10/1/2014	ND<0.01	ND<0.01

Non-Parametric Tolerance Interval

Parameter: Selenium, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 99.0291%
Background measurements (n) = 16
Maximum Background Concentration = 0.010 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.010 mg/L

Concentrations (mg/L)

Parameter: Silver, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 100%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.0004	ND<0.0004
			6/4/2013	ND<0.0004	ND<0.0004
			7/30/2013	ND<0.0004	ND<0.0004
			12/4/2013	ND<0.0004	ND<0.0004
			2/26/2014	ND<0.0004	ND<0.0004
			5/20/2014	ND<0.0004	ND<0.0004
			7/16/2014	ND<0.0004	ND<0.0004
			10/1/2014	ND<0.0004	ND<0.0004
MW-11	8	8 (100%)	3/12/2013	ND<0.0004	ND<0.0004
			6/4/2013	ND<0.0004	ND<0.0004
			7/31/2013	ND<0.0004	ND<0.0004
			12/4/2013	ND<0.0004	ND<0.0004
			2/27/2014	ND<0.0004	ND<0.0004
			5/20/2014	ND<0.0004	ND<0.0004
			7/16/2014	ND<0.0004	ND<0.0004
			10/1/2014	ND<0.0004	ND<0.0004

Non-Parametric Tolerance Interval

Parameter: Silver, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 100%
Background measurements (n) = 16
Maximum Background Concentration = 0.0004 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.0004 mg/L

Concentrations (mg/L)

Parameter: Vanadium, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 43.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	7 (87.5%)	3/11/2013	ND<0.005	ND<0.005
			6/4/2013	ND<0.005	ND<0.005
			7/30/2013	ND<0.005	ND<0.005
			12/4/2013	ND<0.005	ND<0.005
			2/26/2014	ND<0.003	ND<0.003
			5/20/2014	ND<0.003	ND<0.003
			7/16/2014	0.002 J	0.002 J
			10/1/2014	ND<0.005	ND<0.005
MW-11	8	0 (0%)	3/12/2013	0.006	0.006
			6/4/2013	0.005	0.005
			7/31/2013	0.008	0.008
			12/4/2013	0.006	0.006
			2/27/2014	0.009	0.009
			5/20/2014	0.009	0.009
			7/16/2014	0.011	0.011
			10/1/2014	0.009	0.009

Vanadium, Dissolved (mg/L)

General Statistics

Total Number of Observations	16	Number of Missing Observations	0
Number of Distinct Observations	7		
Number of Detects	9	Number of Non-Detects	7
Number of Distinct Detects	6	Number of Distinct Non-Detects	2
Minimum Detect	0.002	Minimum Non-Detect	0.003
Maximum Detect	0.011	Maximum Non-Detect	0.005
Variance Detected	7.4444E-6	Percent Non-Detects	43.75%
Mean Detected	0.00722	SD Detected	0.00273
Mean of Detected Logged Data	-5.024	SD of Detected Logged Data	0.513

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.938	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.829	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.187	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.295	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan Meier (KM) Background Statistics Assuming Normal Distribution

Mean	0.00494	SD	0.00323
95% UTL95% Coverage	0.0131	95% KM UPL (t)	0.0108
90% KM Percentile (z)	0.00908	95% KM Percentile (z)	0.0103
99% KM Percentile (z)	0.0125	95% KM USL	0.0128

UTL = 0.013 mg/L

Concentrations (mg/L)

Parameter: Zinc, Dissolved
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 1005%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	8 (100%)	3/11/2013	ND<0.03	ND<0.03
			6/4/2013	ND<0.03	ND<0.03
			7/30/2013	ND<0.03	ND<0.03
			12/4/2013	ND<0.03	ND<0.03
			2/26/2014	ND<0.03	ND<0.03
			5/20/2014	ND<0.03	ND<0.03
			7/16/2014	ND<0.03	ND<0.03
			10/1/2014	ND<0.03	ND<0.03
MW-11	8	8 (100%)	3/12/2013	ND<0.03	ND<0.03
			6/4/2013	ND<0.03	ND<0.03
			7/31/2013	ND<0.03	ND<0.03
			12/4/2013	ND<0.03	ND<0.03
			2/27/2014	ND<0.03	ND<0.03
			5/20/2014	ND<0.03	ND<0.03
			7/16/2014	ND<0.03	ND<0.03
			10/1/2014	ND<0.03	ND<0.03

Non-Parametric Tolerance Interval

Parameter: Zinc, Dissolved
Original Data (Not Transformed)

Total Percent Non-Detects = 80.5825%
Background measurements (n) = 16
Maximum Background Concentration = 0.03 = Current LOQ
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

UTL = 0.03 mg/L

Concentrations (mg/L)

Parameter: Ammonia as N
Original Data (Not Transformed)
Non-Detects Replaced with Quantitation Limit
Background Percent Non-Detects: 18.75%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	1 (12.5%)	3/11/2013	0.01 J	0.01 J
			6/4/2013	0.01 J	0.01 J
			7/30/2013	0.01 J	0.01 J
			12/4/2013	0.01 J	0.01 J
			2/26/2014	0.01 J,B	0.01 J,B
			5/20/2014	0.02 J,B	0.02 J,B
			7/16/2014	0.01 J	0.01 J
			10/1/2014	ND<0.05	ND<0.05
MW-11	8	2 (25%)	3/12/2013	0.01 J	0.01 J
			6/4/2013	0.02 J	0.02 J
			7/31/2013	0.01 J	0.01 J
			12/4/2013	ND<0.05	ND<0.05
			2/27/2014	0.01 J,B	0.01 J,B
			5/20/2014	0.01 J,B	0.01 J,B
			7/16/2014	ND<0.05	ND<0.05
			10/1/2014	0.02 J,B	0.02 J,B

Ammonia as N (mg/L)

General Statistics

Total Number of Observations	16	Number of Missing Observations	0
Number of Distinct Observations	3		
Number of Detects	13	Number of Non-Detects	3
Number of Distinct Detects	2	Number of Distinct Non-Detects	1
Minimum Detect	0.01	Minimum Non-Detect	0.05
Maximum Detect	0.02	Maximum Non-Detect	0.05
Variance Detected	1.9231E-5	Percent Non-Detects	18.75%
Mean Detected	0.0123	SD Detected	0.00439
Mean of Detected Logged Data	-4.445	SD of Detected Logged Data	0.304

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.534	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.47	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	3.25	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.734	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.478	**Kolmogrov-Smirnoff GOF**
5% K-S Critical Value	0.237	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.534	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.866	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.47	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.246	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Nonparametric Distribution Free Background Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Upper Limits for BTVs(no distinction made between detects and nondetects)

Order of Statistic, r	16	95% UTL with95% Coverage	0.05
Approximate f	0.842	fidence Coefficient (CC) achieved by UTL	0.56
95% UPL	0.05	95% USL	0.05
95% KM Chebyshev UPL	0.0312		

UTL = 0.05 mg/L

Concentrations (mg/L)

Parameter: Chloride
Original Data (Not Transformed)
Background Percent Non-Detects: 0%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	1.88	1.88
			6/4/2013	1.91	1.91
			7/30/2013	2.34	2.34
			12/4/2013	2.34	2.34
			2/26/2014	2.71	2.71
			5/20/2014	2.55	2.55
			7/16/2014	2.20	2.20
			10/1/2014	2.32	2.32
MW-11	8	0 (0%)	3/12/2013	8.12	8.12
			6/4/2013	8.78	8.78
			7/31/2013	8.66	8.66
			12/4/2013	8.82	8.82
			2/27/2014	8.72	8.72
			5/20/2014	8.52	8.52
			7/16/2014	8.36	8.36
			10/1/2014	9.08	9.08

Chloride (mg/L)

General Statistics

Total Number of Observations	16	Number of Distinct Observations	15
Minimum	1.88	First Quartile	2.335
Second Largest	8.82	Median	5.415
Maximum	9.08	Third Quartile	8.675
Mean	5.457	SD	3.292
Coefficient of Variation	0.603	Skewness	7.6347E-4
Mean of logged Data	1.486	SD of logged Data	0.696

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.718	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.298	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Test

A-D Test Statistic	2.12	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.747	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.311	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.217	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.737	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.309	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Nonparametric Distribution Free Background Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	16	95% UTL with 95% Coverage	9.08
Approximate f	0.842	fidence Coefficient (CC) achieved by UTL	0.56
Percentile Bootstrap UTL with 95% Coverage	9.08	BCA Bootstrap UTL with 95% Coverage	9.08
95% UPL	9.08	90% Percentile	8.8
90% Chebyshev UPL	15.64	95% Percentile	8.885
95% Chebyshev UPL	20.25	99% Percentile	9.041
95% USL	9.08		

UTL = 9.08 mg/L

Concentrations (mg/L)

Parameter: Hardness
Original Data (Not Transformed)
Background Percent Non-Detects: 0%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	13.68	13.68
			6/4/2013	29.07	29.07
			7/30/2013	13.68	13.68
			12/4/2013	22.23	22.23
			2/26/2014	25.65	25.65
			5/20/2014	18.81	18.81
			7/16/2014	22.23	22.23
			10/1/2014	27.36	27.36
MW-11	8	0 (0%)	3/12/2013	119.7	119.7
			6/4/2013	107.73	107.73
			7/31/2013	104.31	104.31
			12/4/2013	107.73	107.73
			2/27/2014	117.99	117.99
			5/20/2014	119.70	119.70
			7/16/2014	109.44	109.44
			10/1/2014	99.18	99.18

Hardness (mg/L)

General Statistics

Total Number of Observations	16	Number of Distinct Observations	12
Minimum	13.68	First Quartile	22.23
Second Largest	119.7	Median	64.13
Maximum	119.7	Third Quartile	108.2
Mean	66.16	SD	46.49
Coefficient of Variation	0.703	Skewness	0.0168
Mean of logged Data	3.871	SD of logged Data	0.886

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.76	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.287	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Test

A-D Test Statistic	1.65	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.753	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.293	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.218	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.795	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.294	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Nonparametric Distribution Free Background Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	16	95% UTL with 95% Coverage	119.7
Approximate f	0.842	fidence Coefficient (CC) achieved by UTL	0.56
rcentile Bootstrap UTL with 95% Coverage	119.7	BCA Bootstrap UTL with 95% Coverage	119.7
95% UPL	119.7	90% Percentile	118.8
90% Chebyshev UPL	209.9	95% Percentile	119.7
95% Chebyshev UPL	275.1	99% Percentile	119.7
95% USL	119.7		

UTL = 119.7 mg/L

Concentrations (mg/L)

Parameter: Nitrate
Original Data (Not Transformed)
Background Percent Non-Detects: 0%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	0.16	0.16
			6/4/2013	0.14	0.14
			7/30/2013	0.06	0.06
			12/4/2013	0.12	0.12
			2/26/2014	0.10	0.10
			5/20/2014	0.07	0.07
			7/16/2014	0.14	0.14
			10/1/2014	0.17	0.17
MW-11	8	0 (0%)	3/12/2013	0.05	0.05
			6/4/2013	0.04 J	0.04 J
			7/31/2013	0.05	0.05
			12/4/2013	0.05	0.05
			2/27/2014	0.04 J	0.04 J
			5/20/2014	0.03 J	0.03 J
			7/16/2014	0.04 J	0.04 J
			10/1/2014	0.04 J	0.04 J

Nitrate (mg/L)

General Statistics

Total Number of Observations	16	Number of Distinct Observations	10
Minimum	0.03	First Quartile	0.04
Second Largest	0.16	Median	0.055
Maximum	0.17	Third Quartile	0.125
Mean	0.0813	SD	0.0488
Coefficient of Variation	0.601	Skewness	0.746
Mean of logged Data	-2.675	SD of logged Data	0.588

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.835	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.239	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Test

A-D Test Statistic	0.929	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.744	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.228	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.217	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.888	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.207	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.222	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Background Statistics assuming Lognormal Distribution

95% UTL with 95% Coverage	0.304		90% Percentile (z)	0.146
95% UPL (t)	0.199		95% Percentile (z)	0.181
95% USL	0.29		99% Percentile (z)	0.27

UTL = 0.304 mg/L

Concentrations (mg/L)

Parameter: Sulfate
Original Data (Not Transformed)
Background Percent Non-Detects: 0%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	1.39	1.39
			6/4/2013	1.63	1.63
			7/30/2013	1.32	1.32
			12/4/2013	1.74	1.74
			2/26/2014	2.07	2.07
			5/20/2014	2.17	2.17
			7/16/2014	1.9	1.9
			10/1/2014	2.32	2.32
MW-11	8	0 (0%)	3/12/2013	5.90	5.90
			6/4/2013	7.09	7.09
			7/31/2013	6.48	6.48
			12/4/2013	6.51	6.51
			2/27/2014	7.64	7.64
			5/20/2014	7.82	7.82
			7/16/2014	7.84	7.84
			10/1/2014	8.44	8.44

Sulfate (mg/L)

General Statistics

Total Number of Observations	16	Number of Distinct Observations	16
Minimum	1.32	First Quartile	1.86
Second Largest	7.84	Median	4.11
Maximum	8.44	Third Quartile	7.228
Mean	4.516	SD	2.86
Coefficient of Variation	0.633	Skewness	0.111
Mean of logged Data	1.275	SD of logged Data	0.736

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.807	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Test

A-D Test Statistic	1.394	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.749	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.251	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.218	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.817	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.252	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Nonparametric Distribution Free Background Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	16	95% UTL with 95% Coverage	8.44
Approximate f	0.842	fidence Coefficient (CC) achieved by UTL	0.56
centile Bootstrap UTL with 95% Coverage	8.44	BCA Bootstrap UTL with 95% Coverage	8.44
95% UPL	8.44	90% Percentile	7.83
90% Chebyshev UPL	13.36	95% Percentile	7.99
95% Chebyshev UPL	17.37	99% Percentile	8.35
95% USL	8.44		

UTL = 8.44 mg/L

Concentrations (mg/L)

Parameter: Total Dissolved Solids (TDS)
Original Data (Not Transformed)
Background Percent Non-Detects: 0%
Total Background Measurements: 16
There are 2 background locations

Loc.	Meas.	ND	Date	Conc.	Original
MW-1	8	0 (0%)	3/11/2013	29.5	29.5
			6/4/2013	48.5	48.5
			7/30/2013	51	51
			12/4/2013	31.5	31.5
			2/26/2014	42.5	42.5
			5/20/2014	38.5	38.5
			7/16/2014	46 H	46 H
			10/1/2014	42	42
MW-11	8	0 (0%)	3/12/2013	148.5	148.5
			6/4/2013	152.5	152.5
			7/31/2013	161	161
			12/4/2013	132	132
			2/27/2014	147	147
			5/20/2014	133.5	133.5
			7/16/2014	141 H	141 H
			10/1/2014	129.5	129.5

TDS (mg/L)
General Statistics

Total Number of Observations	16	Number of Distinct Observations	16
Minimum	29.5	First Quartile	42.38
Second Largest	152.5	Median	90.25
Maximum	161	Third Quartile	142.5
Mean	92.16	SD	53.44
Coefficient of Variation	0.58	Skewness	0.0344
Mean of logged Data	4.331	SD of logged Data	0.666

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.524	d2max (for USL)	2.443

Normal GOF Test

Shapiro Wilk Test Statistic	0.79	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Gamma GOF Test

A-D Test Statistic	1.544	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.746	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.287	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.217	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.807	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.887	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.288	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.222	Data Not Lognormal at 5% Significance Level

Data Not Lognormal at 5% Significance Level

Nonparametric Distribution Free Background Statistics

Data do not follow a Discernible Distribution (0.05)

Nonparametric Upper Limits for Background Threshold Values

Order of Statistic, r	16	95% UTL with 95% Coverage	161
Approximate f	0.842	fidence Coefficient (CC) achieved by UTL	0.56
rcentile Bootstrap UTL with 95% Coverage	161	& BCA Bootstrap UTL with 95% Coverage	161
95% UPL	161	90% Percentile	150.5
90% Chebyshev UPL	257.4	95% Percentile	154.6
95% Chebyshev UPL	332.3	99% Percentile	159.7
95% USL	161		

UTL = 161 mg/L

Carver, Beverley (DEQ)

From: Oula K Shehab-Dandan (Services - 6) [oula.k.shehab-dandan@dom.com]
Sent: Monday, February 02, 2015 3:10 PM
To: Carver, Beverley (DEQ)
Cc: Jean Tribull (Generation - 3); Kenneth Roller (Services - 6)
Subject: RE: Dominion Bremo Power Station - Application Questions
Attachments: BR VPDES Permit Application - Application Addendum.pdf

Hi Beverly,

Here are the answers:

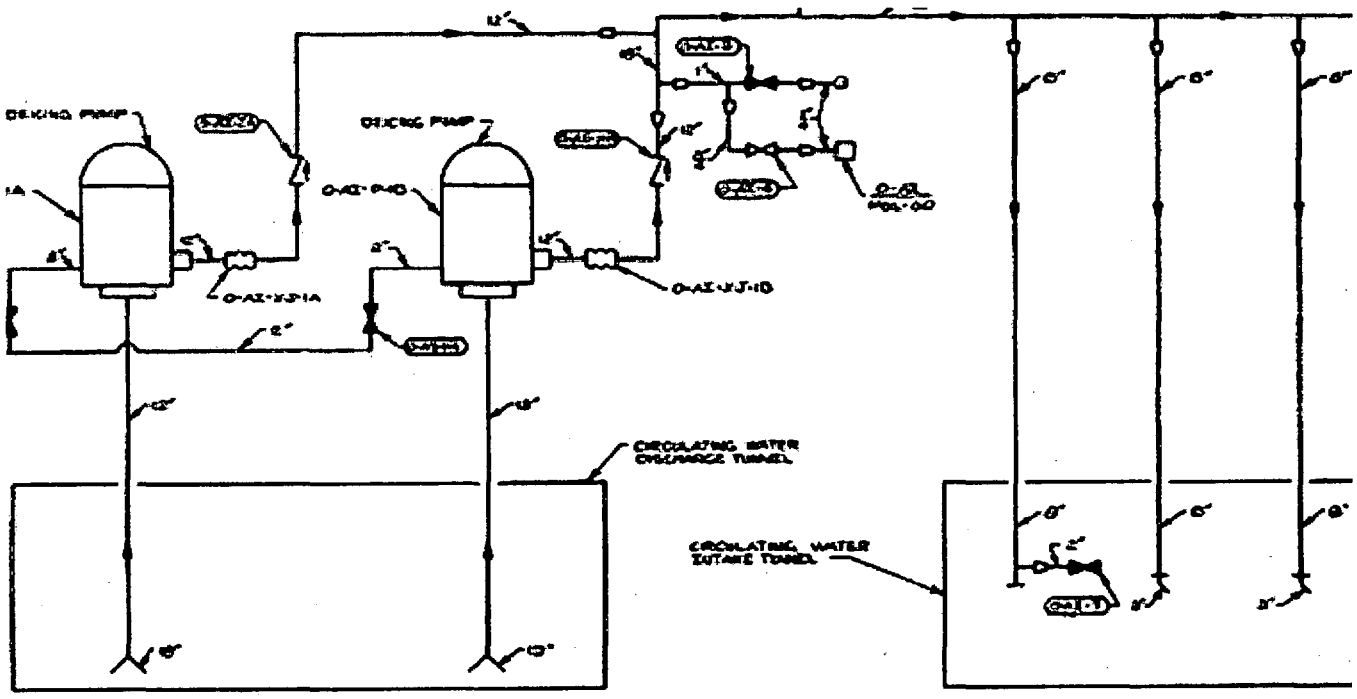
1. The Design Intake Flow (DIF) is 179.3 MGD. The application addendum was corrected and is included here.
   The AIF we provided in the application was based on the reported totals for 2011-2013. The AIF based on 2012-2014 is 69.6 MGD based on:

	2012	2013	2014	Average
Annual Total (MG)	27,795	24,676	23,717	25,396
Average (MGD)	76.2	67.6	64.9	69.6

2. The pumps pick-up water from the outfall (heated water) and distribute it at the intake to help manage ice buildups. See diagram below.

Hope this helps.

Oula



From: Carver, Beverley (DEQ) [mailto:Beverley.Carver@deq.virginia.gov]
Sent: Tuesday, January 27, 2015 5:13 PM

To: Oula K Shehab-Dandan (Services - 6)
Subject: Dominion Bremo Power Station - Application Questions

Hi Oula,

Can you help me with these questions:

1. Design Intake Flow (DIF) and Actual Intake Flow (AIF) per the CWIS regulation documentation in the Application – Is the DIF = 179.3 MGD? (based on One Line Diagram and Addendum to Form 2c). The Application Addendum says 172.8 MGD. Should it be 179.3 to be consistent with the other parts of the Application? Can you provide the AIF for 2012 – 2014?

2. Can you provide a description of how the deicing system is operated? A diagram would be helpful.

Thanks,

Bev

Beverley W. Carver
Water Permit Writer Senior
Department of Environmental Quality
Valley Regional Office
4411 Early Road, Harrisonburg, VA
Phone: (540) 574-7805 FAX: (540)574-7878
email: Beverley.Carver@deq.virginia.gov
web: www.deq.virginia.gov
Mail: P.O. Box 3000, Harrisonburg, VA 22801

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VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Virginia Electric and Power Company
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** ☐ YES ☑ NO
   Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.

3. **What is the tax map parcel number for the land where this facility is located?** See Attached

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** Undetermined

5. ALL FACILITIES: **What is the design average flow of this facility?** 179.3 MGD
   Industrial facilities: **What is the maximum 30-day avg. production level (include units)?** 227 Megawatts

   In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? ☐ YES ☑ NO

   If "Yes", please specify the other flow tiers (in MGD) or production levels: –
   Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. **Nature of operations generating wastewater:**
   Steam Electric Power Generation

   0.15 % of flow from domestic connections/sources
   Number of private residences to be served by the wastewater treatment facilities: ☑ 0 ☐ 1-49 ☐ 50 or more

   99.58 % of flow from non-domestic connections/sources

7. **Mode of discharge:** ☑ Continuous ☐ Intermittent ☐ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:
   N/A

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   ☑ Permanent stream, never dry
   ☐ Intermittent stream, usually flowing, sometimes dry
   ☐ Ephemeral stream, wet-weather flow, often dry
   ☐ Effluent-dependent stream, usually or always dry
   ☐ Lake or pond at or below the discharge point
   ☐ Other:

9. **Consent to receive electronic mail**
   The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check *only one* of the following to consent to or decline receipt of electronic mail from DEQ as follows:

   ☑ Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ.
   Please provide email: cathy.c.taylor@dom.com and oula.k.shehab-dandan@dom.com

   ☐ Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.

Dominion Resource Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
dom.com

Dominion®

BY U.S. MAIL
RETURN RECEIPT REQUESTED

DEQ VALLEY
JUL 06 2015
To: BWC
Date:

June 30, 2015

Ms. Beverly Carver
Virginia Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

RE: Dominion Bremo Power Station VPDES Permit No. VA0004138
Permit Reissuance Application Addendum

Dear Ms. Carver:

Virginia Electric & Power Company d/b/a Dominion Virginia Power (Dominion) is submitting an addendum to our January 14, 2015 application for reissuance of the subject permit. As you know, Dominion recently identified and reported the potential for groundwater flow into an East Ash Pond drainage feature associated with Outfalls 004 and 003. This addendum addresses that drainage feature, as well as relevant aspects of Dominion's ash pond closure plans, for consideration by DEQ as it processes the permit application.

Should you have any questions and/or require additional information, please contact Oula Shehab-Dandan at (804) 273-2697.

Sincerely,

Cathy C. Taylor

Cathy C. Taylor
Director, Electric Environmental Services

Description of Drainage Feature & Related Closure Activities

In the area immediately downgradient of the East Ash Pond at Bremo, surface water is conveyed from the pond and upland areas to the James River via permitted outfall locations (VPDES Outfalls 003 and 004). Water from the North Pond exits Outfall 004 into a drainage feature ("Ditch")[1], which runs along the base and downgradient side of the East Ash Pond berm. Stormwater from a drainage area associated with the most southeastern portion of the property, including drainage south of the North Ash Pond and around the eastern and southern portion of the closed East Ash Pond, also exits Outfall 003 through this Ditch.

In connection with the Corrective Action Plan submittal on April 14, 2015, Dominion performed a risk assessment related to potential groundwater impacts observed at the onsite ash ponds. A report on the results of this risk assessment will be submitted to DEQ by July 10, 2015.

The risk assessment included an evaluation of impacts to the Ditch, and from the Ditch, to the James River. The evaluation determined that a portion of the water conveyed into and through the Ditch may be contributed by groundwater. At times (*e.g.*, when there is low flow in the Ditch), evidence of the groundwater contribution may be visible on the face of the Ditch wall, but to date it has not been observed to visibly flow. At other times, the water level in the Ditch, due to surface water flow, may be higher than areas of groundwater contribution into the Ditch. It is possible that this groundwater may come into contact with coal ash constituents within the inactive East Ash Pond.

Chemical analyses of the water collected from various locations within the Ditch confirmed that all detected constituents are below applicable water quality standards, and Dominion's risk assessment confirmed that there are no risks to human health or the environment from the groundwater.

Dominion's conceptual plans for closure of the CCR ponds at Bremo would further minimize any potential for impacts from groundwater flow in or through the Ditch. Dominion's conceptual plan for Bremo is to dewater and close the East Pond in place with an impervious cover system compliant with the CCR rule. Closure of the pond in this manner should eliminate surface water infiltration into the ash, thereby greatly reducing or eliminating the potential for future groundwater flow in or through the Ditch.

---

[1] The drainage feature associated with Outfalls 004 and 003 is a manmade feature historically characterized as a ditch. During a recent site visit to the Bremo Power Station, however, the U.S. Army Corps of Engineers determined that the drainage feature in question is a water of the United States. As a result, any impacts to the Ditch associated with closure activities, or with routine maintenance, will need to be separately evaluated for permitting purposes.

CERTIFICATION

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 the 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.

NAME: David A. Craymer

OFFICIAL TITLE: V.P. Power Generation System Operations

PHONE NO: (804) 273-3685

SIGNATURE: David A Craymer

DATE SIGNED: 6/30/15

Dominion Resource Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
dom.com

Dominion®

BY U.S. MAIL
RETURN RECEIPT REQUESTED

RECEIVED
DEQ – Valley
AUG 12 2015
To: _____
FILE: _____

August 6, 2015

Ms. Amy Owens
Regional Director
Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

RE: Dominion - Bremo Power Station VPDES Permit No. VA0004138
Permit Application Addendum

Dear Ms. Owens:

Attached please find a Permit Application Addendum for the Virginia Pollutant Discharge Elimination System (VPDES) Permit application (renewal) that has been submitted to the Virginia Department of Environmental Quality (DEQ) for the Bremo Power Station in Fluvanna County, Virginia. As you are aware, Virginia Electric and Power Company (Dominion), owner and operator of the Bremo Power Station, submitted an application to renew the existing VPDES Permit for the Bremo Power Station to the DEQ on January 14, 2015, and the application has been deemed complete by DEQ.

As part of the renewal process, Dominion is submitting this Application Addendum outlining needed process water routing changes that have been identified subsequent to the initial application submittal. The routing changes are necessary for closure and construction activities at the West Ash Pond, East Ash Pond, and North Ash Pond pursuant to the United States Environmental Protection Agency's (EPA's) promulgation of the Coal Combustion Residuals (CCR) regulations (CCR Final Rule) in April 2015. Under the relevant provisions of the CCR Final Rule, Dominion must complete closure activities no later than April 17, 2018. In order for Dominion to meet this deadline, process water routing changes must occur on or before January 1, 2016, in advance of closure activities. In addition to closure of the CCR ponds, the station plans to close the Metals Pond. The information presented in this addendum is designed to assist the DEQ with understanding the proposed changes and processing the permit renewal.

Should you have any questions regarding this submission, please contact Ken Roller with Dominion at 804-273-3494 or Kenneth.roller@dom.com

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

Attachment: Permit Application Addendum, *Virginia Pollutant Discharge Elimination System Permit No. VA0004138, Virginia Electric and Power Company, Bremo Power Station*

CERTIFICATION

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 the 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.

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DATE SIGNED: 8/5/15

PERMIT APPLICATION ADDENDUM

Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0004138

Virginia Electric and Power Company

Bremo Power Station

Dominion

Submitted To: Commonwealth of Virginia
Department of Environmental Quality
Valley Regional Office
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August 2015

Reference No. 1520-347.300

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EXECUTIVE SUMMARY

The Bremo Power Station (Station) is located in Fluvanna County, Virginia at 1038 Bremo Road, just east of Route 15 (James Madison Highway) and north of the James River. The Station is owned and operated by Virginia Electric and Power Company, operating as Dominion. The Station recently converted from a coal-fired power plant to a natural gas-fired power plant. Coal Combustion Residuals (CCR) from historical coal-fired operations are stored in three impoundments on-site (North Ash Pond, West Ash Pond, and East Ash Pond). Process water from these ponds and other Station activities has historically been discharged with contact stormwater to the James River pursuant to the authorization, limits, and conditions of a Virginia Department of Environmental Quality (DEQ) Virginia Pollutant Discharge Elimination System (VPDES) Permit (Permit No. VA0004138).

In anticipation of the CCR Final Rule, Dominion began planning for the permanent closure of the North Ash Pond, West Ash Pond, and East Ash Pond as inactive CCR surface impoundments. The West Ash Pond will be closed in accordance with §257.100(b)(5) of the CCR Final Rule through removal of CCR (i.e., "clean closure"). The North and East Ash Ponds will be closed in accordance with §257.100(b)(1) through (4) of the CCR Final Rule by capping the CCR in place (i.e., "closure-in-place"). The process water generated by the Station is expected to change during and after the closure activities.

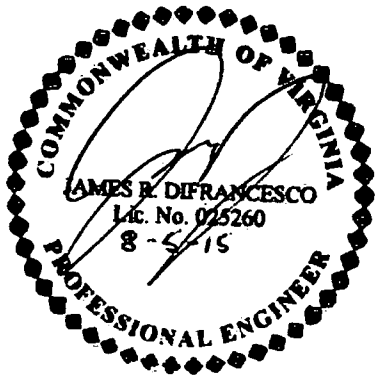
Accordingly, Dominion has prepared this Permit Application Addendum (Addendum) for the Bremo Power Station to clarify the existing stormwater and process water conditions, the proposed conditions that will exist during closure activities, and the conditions that will exist after closure is completed, which is expected before April 17, 2018. Based on the process water characterization activities that were completed for the project, Dominion has identified certain process waters (i.e., waters generated by dewatering the ponds, referred to herein as "dewatering water") as possibly requiring treatment beyond that which is already in place at the Station. Based on these findings, a Pre-treatment System has been conceptually designed to treat the dewatering water as needed to protect water quality and achieve water quality-based limits established by DEQ. Dominion anticipates operating the Pre-treatment System as needed for the duration of the construction project.

SIGNATURE PAGE

This Addendum has been prepared by a qualified engineer on behalf of Virginia Electric and Power Company (Dominion) for the Bremo Power Station in Fluvanna County, Virginia. The Addendum is designed to address and explain proposed changes in stormwater and process water discharges that are anticipated at the Bremo Power Station until and after the site closure activities are considered complete (prior to April 17, 2018).

Signature:

Name & Title



Ron DiFrancesco, P.E.
Principal and Senior Consultant

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1.0 INTRODUCTION

The Bremo Power Station (Station) is owned and operated by Virginia Electric and Power Company (Dominion) in Fluvanna County, Virginia. The approximate location of the Station is illustrated on the inset United States Geological Survey (USGS) topographic map on Drawing 1. Stormwater and process water generated by the Station are currently discharged to the James River via nine permitted outfalls – 001, 101, 002, 202 (internal outfall), 203 (internal outfall), 204 (internal outfall), 003, 004, and 006. The approximate locations of the existing permitted outfalls are shown on Drawing 2. The outfalls are permitted under a Virginia Department of Environmental Quality (DEQ) Virginia Pollutant Discharge Elimination System (VPDES) Permit (Permit No. VA0004138). The permit was issued on August 13, 2010, and has an expiration date of July 31, 2015. An application for reissuance of the permit was submitted to DEQ on January 14, 2015. This Permit Application Addendum (Addendum) is an addendum to the January 14, 2015, reissuance application.

The purpose of this Addendum is to describe Dominion's planned efforts to close three existing ash impoundments (North, West, and East Ash Ponds) under the CCR Final Rule. As a result of the closure activities, the configuration for process water and stormwater management activities at the Station will change from that which is currently permitted and proposed in the January 14, 2015, renewal application.[1] This Addendum presents the proposed:

- changes in the stormwater and process water management configuration that will be required during project closure activities through April 17, 2018 (interim period), and
- operating configuration for stormwater and process water management following the completion of closure activities (final period).

Details for the existing, interim (construction phase), and final (post-construction) water management configurations are presented in the following sections of this Report.

[1] It should be noted that some of the planned changes in wastewater sources and configurations that will occur during the closure process will not appreciably change the characteristics of existing discharges beyond those anticipated by the existing permit. Consequently, Dominion will be submitting a separate Notice of Planned Changes for these activities, requesting DEQ concurrence that they may be carried out under the existing permit.

2.0 EXISTING OPERATING CONFIGURATION

Stormwater and process water generated by the Station are currently discharged to the James River via nine (9) VPDES permitted outfalls. A map of the Station, ponds, and existing permitted outfalls is provided as Drawing 2. The source waters to each outfall are described in detail in the January 14, 2015, application for reissuance, included in the detailed One-line Diagram in Appendix I of this Addendum, and are summarized below.

Outfall	Source Water/Process
001	Condenser Cooling Water
101	Intake Screen Backwash
002	Industrial Stormwater (West Ash Pond)
202	Metals Cleaning Waste Treatment Basin (directed to 002)
203	Sewage Treatment Plant (STP; to 002 via Stormwater Management Pond)
204	Coal Pile Runoff (directed to 002 via Stormwater Management Pond; SWMP)
003	Non-contact Stormwater (East Ash Pond)
004	Industrial Stormwater (North Ash Pond)
006	Non-contact Stormwater (Station area outside of floodwall)

The existing operating configurations for outfall 202 (Metals Pond), outfall 002 (West Pond), outfall 003 (East Pond), outfall 204 (Stormwater Management Pond), and outfall 004 (North Ash Pond) are summarized in the following sections, as the configuration for these outfalls is proposed for modification under this Addendum.

2.1 Outfall 202 - Metals Pond

As depicted on Drawing 2, the Metals Pond is located on the west side of the West Ash Pond in the western area of the Station. The Metals Pond has historically been used to manage the Station's metals cleaning wastewater. The pond is no longer needed for this purpose and, consequently, Dominion plans to close the Metals Pond during the ash pond closure process. As illustrated on the One-line Diagram in Appendix I (under the source water heading stormwater/groundwater) and on Drawing 3 (Process Flow Diagram for existing conditions), water from the Metals Pond is discharged intermittently through internal outfall 202 to the West Ash Pond, with the West Ash Pond discharging to the James River via outfall 002. The currently permitted operating conditions for the Metals Pond are expected to continue through October 18, 2015, at which time closure activities for the Metals Pond (accumulated materials and water removal) are expected to commence.

2.2 Outfall 002 - West Ash Pond

As presented on Drawing 2, the West Ash Pond is located in the western area of the Station. The West Ash Pond is an active pond that was formerly used for CCR management, and is currently used to manage the Station's low-volume industrial wastewater. As illustrated on the One-line Diagram in Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), water from the West Ash

Pond is routed through a series of drainage structures to outfall 002. The currently-permitted operating conditions for the West Ash Pond are expected to continue through October 18, 2015, at which time closure activities (accumulated materials and water removal) are expected to commence.

2.3 Outfall 003 - East Ash Pond

As depicted on Drawing 2, the East Ash Pond is located in the southeast area of the Station. The East Ash Pond is an inactive pond that was formerly used to manage CCR. As illustrated on the One-line Diagram in Appendix I (under the source water heading stormwater/groundwater) and on Drawing 3 (Process Flow Diagram for existing conditions), non-contact stormwater from the East Ash Pond currently is routed through a series of drainage structures on an intermittent basis (precipitation dependent) to outfall 003. The currently permitted operating conditions for the inactive East Ash Pond are expected to continue through January 1, 2016, when closure (capping) activities are expected to begin with pre-construction dewatering activities.[2]

2.4 Outfall 204 - Stormwater Management Pond

As depicted on Drawing 2, the Stormwater Management Pond is located in the central area of the Station property. The Stormwater Management Pond has historically been used primarily to manage coal pile stormwater runoff and other secondary process water sources as illustrated in the One-line Diagram (Appendix I). With removal of the coal pile following conversion of the Station from a coal-fired power plant to a natural gas-fired power plant, the pond has been maintained for managing stormwater runoff from the Station, as well as the secondary Station low volume process water sources (existing permitted source waters). The North Ash Pond toe drain is also routed to the Stormwater Management Pond.

As illustrated on the One-line Diagram in Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), water from the Stormwater Management Pond is routed to the West Ash Pond via internal outfall 204, with the West Ash Pond discharging to the James River via outfall 002. The currently permitted operating conditions for the Stormwater Management Pond are expected to continue through September 1, 2015, when the influent water source to the West Ash Pond will need to be eliminated to lower the water level in the West Ash Pond to complete the dredging activities by October 18, 2015, when closure of the West Ash Pond is initiated. It will be necessary to route outfall 204 directly to outfall 002 in order to complete removal of the ash from the West Ash Pond. A more complete description of the outfall 204 rerouting will be provided in a separate Notice of Planned Changes, which will request DEQ concurrence that the activity may proceed under the existing permit.

[2] On June 17, 2015, Dominion contacted DEQ concerning the determination that groundwater from the area associated with the East Ash Pond contributes to a drainage feature associated with existing Outfall 004. Subsequent related correspondence concerning this groundwater contribution was provided to DEQ by letter dated June 22, 2015 and in a separate permit application addendum submitted by letter dated June 30, 2015.

2.5 Outfall 004 - North Ash Pond

As depicted on Drawing 2, the North Ash Pond is located in the northeast area of the Station property. The North Ash Pond is used to manage CCR. As illustrated on the One-line Diagram in Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), contact stormwater from the North Ash Pond is routed via a series of drainage structures to outfall 004. The North Ash Pond also receives dredged ash and associated source waters (see Section 3.1 for source water descriptions) from the West Ash Pond. The currently permitted operating conditions for the North Ash Pond are expected to continue through October 18, 2015, at which time the placement of CCR in the pond will cease, and closure (capping) activities are expected to begin with pre-construction dewatering activities.

3.0 CLOSURE ACTIVITIES

Dominion intends to permanently close the North and East Ash Ponds as inactive CCR surface impoundments under the CCR Final Rule. The West Ash Pond will be clean-closed in accordance with §257.100(b)(5) of the CCR Final Rule through removal of the CCR, which will be accomplished by April 17, 2018. A map of the Station's proposed conditions and permitted outfalls is provided as Drawing 3.

The North and East Ash Ponds will be closed-in-place in accordance with §257.100(b)(1) through (4) of the CCR Final Rule by removing free liquids and capping the CCR in place, which will also be completed by April 17, 2018. Once closed as inactive CCR impoundments, the North and East Ash Ponds will no longer be subject to the requirements of the CCR Final Rule; rather, it is anticipated that DEQ will regulate these closed inactive surface impoundments pursuant to the Virginia Solid Waste Management Regulations (VSWMR).

During the closure activities scheduled for completion no later than April 17, 2018, stormwater and process water will continue to be discharged from Station outfalls 001, 101, 203, and 006 with no changes to existing permitted conditions. It is anticipated that these discharges will continue to be covered under the VPDES Permit as renewed and reissued by the DEQ. The discharges from outfalls 002, 202, 003, 204, and 004 are also proposed for inclusion in the renewed and reissued permit; however, as discussed below, the wastewaters contributing to these discharges will change (outfalls 002, 003, and 004); be eliminated as the source systems are modified or taken off-line (outfall 202); or be temporarily re-routed as a result of the ash pond closure process (outfall 204).

Details for the proposed closure activities and associated wastewater management are discussed in the following sections. Dominion would like to have flexibility to properly manage stormwater and process water generated during the closure process. Consequently, we are providing a number of options for the handling and discharge of the water sources that will be generated during the closure process associated with each pond. A Tentative Closure Construction Schedule is presented in Appendix II.

3.1 Source Waters

Discharge source waters associated with the closure of the three inactive CCR impoundments are:

1) impoundment decant water,
2) construction dewatering water,
3) contact stormwater,
4) construction non-contact stormwater,
5) post-construction stormwater discharges,
6) Stormwater Management Pond,
7) Metals Pond, and
8) North Ash Pond Toe Drain.

A description of each of these closure discharge source waters follows:

3.1.1 Impoundment Decant Water

Impoundment decant water (IDW) includes surface waters that result from the commingling of a number of wastewater types, including but not necessarily limited to: stormwater, low volume wastewater, sewage treatment plant (STP) discharges, ash dewatering water, and waters that are used to convey CCR to an impoundment through sluicing or dredging. As an initial step in the process leading to the closure of the West and North Ash Ponds, it will be necessary to remove the IDW in order to complete removal of the ash (West Ash Pond) or allow for dewatering of the ash in order to prepare a stable surface on which to construct the closure cap (North Ash Pond). IDW is currently permitted for discharge through outfalls 002 and 004.

3.1.2 Ash Dewatering Water

Ash dewatering water (ADW) is considered to be the pore water within the CCR mass. ADW refers to the water that is produced from the dewatering of the ash in order to stabilize the ash and allow for its removal by mechanical dredging or its grading for the construction of a closure cap system. It is generated from the CCR dewatering process through mechanical means (*e.g.*, vacuum wells, sump pumps, or other *in situ* withdrawal methods) and from cutting drainage ditches or rim ditches into the CCR mass. Consequently, some ADW would be expected to be present in the IDW in both the West and North Ash Ponds during dredging of the ash mass from the West Pond to the North Pond. Ash dewatering water will be produced during the process leading to closure of both the North and East Ash Ponds, and Dominion will need to manage this wastewater independently or in combination with other waste streams.

3.1.3 Contact Stormwater

Contact stormwater is stormwater runoff that has contacted the CCR. Contact stormwater may be present in the IDW for both the West and North Ash Ponds. Contact stormwater will be generated during closure activities for each pond (North, East, and West Ash Ponds) and must be removed from the working areas in order to close the ponds.

3.1.4 Construction Non-contact Stormwater

Construction non-contact stormwater is the stormwater runoff generated during closure activities that has not contacted CCR, but is subject to the permitting requirements under the Virginia Stormwater Management Program (VSMP). Areas where construction non-contact stormwater may be generated include the West Ash Pond after the CCR material has been removed, the North and East Ash Ponds after installation of the geomembrane liner (CCR no longer exposed), and other land disturbance areas that do not expose CCR associated with the closure activities (e.g., soil stockpile, laydown areas, haul roads).

Dominion proposes to discharge construction non-contact stormwater through temporary surface water outfall locations identified and permitted under the VSMP.

3.1.5 Post-construction Stormwater

Post-construction stormwater is the non-contact stormwater runoff from the closed CCR impoundments and restored disturbed areas after they are stabilized. This discharge water is considered non-contact both under the VPDES and VSMP permits, and does not require post-construction water quality treatment based on the improved post-construction land cover condition of transitioning from open water/impervious area to a managed turf condition.

It is proposed to discharge post-construction stormwater through newly established permanent surface water outfall locations.

3.1.6 Stormwater Management Pond

See Section 2.4 for a description of wastewater sources to the Stormwater Management Pond.

3.1.7 Metals Pond

See Section 2.1 for a description of wastewater sources to the Metals Pond.

3.1.8 North Ash Pond Toe Drain

The North Ash Pond toe drain water (i.e., from the designed toe drain system for the dam) is currently routed via an open ditch to the Stormwater Management Pond as allowed under the existing VPDES permit. At the time of closure, the toe drain water will be routed via a gravity pipe to the Stormwater Management Pond for treatment and discharge through outfall 002.

3.2 Source Water Characterization

As described in Section 3.1.1, Impoundment Decant Water (IDW) may consist of a combination of different wastewater sources. The chemical characteristics of IDW are presented in the Form 2C and Attachment A for outfall 002 (also representative for outfall 004) that were submitted with the January 14, 2015, permit application.

Contact stormwater may be present in the IDW for both the West and North Ash Ponds, and as a surface water, is expected to be similar in quality to IDW, but may contain slightly higher concentrations of certain constituents (e.g., TSS).

To characterize the expected quality of ADW, Stormwater Management Pond effluent, Metals Pond decant water, and the North Ash Pond toe drain water, a series of sampling events was conducted

between March and June 2015 by an independent consultant, and by Dominion in January 2015.[3] During these events, samples were collected from representative locations within the source stream for various analyses.

A matrix illustrating the sampling locations and constituents that were analyzed by event is presented in Table 1.[4] To evaluate the expected quality of the construction dewatering water, samples were collected from two piezometers that were constructed within the CCR mass of the North and East Ash Ponds. These piezometers, PZ-1 and PZ-2, respectively, were sampled to generate data representative of the expected dewatering water quality without additional treatment.

During each sampling event for each source water, representative samples were collected using appropriate equipment by qualified sample technicians following EPA surface water sampling protocols and industry standards for groundwater sampling. Samples collected for dissolved analysis were laboratory-filtered with a 0.45-micron filter.

The samples were collected in laboratory-provided, pre-preserved (laboratory-filtered metals containers were preserved by the laboratory after filtering), pre-labeled sample containers and placed on ice in a cooler under chain-of-custody control pending delivery to the laboratory for analysis. Samples for analysis by Environmental Conservation Laboratories, Inc. (ENCO) of Cary, North Carolina were shipped to ENCO via commercial overnight courier under chain-of-custody control, and samples for analysis by Air, Water and Soils Laboratories, Inc. (AWS) of Richmond, Virginia, were delivered to AWS under chain-of-custody control. Both AWS and ENCO and their subcontractor laboratories are Virginia Environmental Laboratory Accreditation Program (VELAP) accredited laboratories. The results of the laboratory analyses are presented in Table 2 and are summarized in Table 3.

3.2.1 Impoundment Decant Water, Contact Stormwater, Construction Non-contact Stormwater, and Post-construction Stormwater

The characteristics of IDW are presented in the application for reissuance of Bremo Power Station's VPDES permit, and Dominion plans to continue to discharge IDW during the closure process in accordance with the existing VPDES permit. Polymers may be added to the West and North Ash Ponds to control TSS concentrations as allowed under the permit.

[3] Sampling of the Stormwater Management Pond was performed on January 20, 2015. The samples were collected by Dominion environmental professionals in accordance with EPA protocols and were analyzed by either Dominion Laboratory Services or Air, Water and Soil (both Virginia certified laboratories) using 40 CFR Part 136 methods. Results of these analyses are also included in Table 2.

[4] During the initial events, sampling and analyses were performed for a selected list of parameters based on the known characteristics of the wastestreams. However, following discussions with DEQ staff the list was expanded to include all parameters that would typically be determined during preparation of a VPDES permit application (i.e., EPA Form 2C and DEQ Attachment A parameters).

As discussed above, contact stormwater is expected to be similar in characteristics to IDW, but may contain somewhat higher concentrations of certain constituents (e.g., TSS). Therefore, the proposed pre-treatment system for contact stormwater will treat TSS. Pre-treatment will be implemented, as necessary, during the closure activities of the West and North Ash Ponds.

No treatment will be needed for the Station's construction non-contact and post-construction stormwater.

3.2.2 Ash Dewatering Water

As presented in Table 2 and summarized in Table 3, the samples collected from PZ-1 (North Ash Pond CCR) and PZ-2 (East Ash Pond CCR) are representative of the expected ADW quality prior to any additional treatment. The sample results indicate elevated metals concentrations (total and dissolved) for certain metals, particularly in the PZ 2 samples collected from the East Ash Pond. The elevated metals concentrations appear, in part, to be related to the geochemical conditions (reducing) present within the saturated materials. Specifically, the nearly neutral pH conditions coupled with the low oxidation-reduction potential have facilitated the dissolution of certain minerals, resulting in relatively increased concentrations for certain elements in the AWD samples when compared to other source waters. In general, these elements are: antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, lead, lithium, magnesium, manganese, nickel, potassium, phosphorus, thallium, vanadium, and zinc. The total dissolved solids (TDS) concentrations in the AWD samples are elevated with respect to the other source waters, with the exception of the Metals Pond. In addition, the AWD samples have elevated TSS concentrations in comparison to the other source waters, contributing to the elevated metals concentrations. In general, the dissolved metals concentrations in the AWD samples (PZ 1 and PZ 2) are substantially lower than the total metals concentrations, indicating the attenuating effect of filtration on the metals concentrations. Notable exceptions are boron, lithium, and molybdenum.

With the exception of Chemical Oxygen Demand (COD), the remaining constituents/parameters that were detected during the AWD characterization sampling activities exhibit concentrations that are generally similar to those observed in the other source waters. The elevated metals concentrations are expected to be attenuated significantly with TSS controls, and thus, the conceptual pre-treatment system is designed to remove TSS with provisions for metals recovery using pH buffering, aeration, and other oxidative processes combined with hydraulic retention time and solids recovery. Dominion believes that the pre-treatment system will be sufficient to attenuate the observed metals concentrations to concentrations protective of water quality.

3.2.3 North Pond Toe Drain, Metals Pond, and Stormwater Management Pond

Results for the Stormwater Management Pond are very similar to data for outfall 002 submitted with the VPDES permit application. In order to complete closure of the West Ash Pond, it will be necessary to route the Stormwater Management Pond directly to outfall 002. Dominion will be submitting a separate

Notice of Planned Changes that will demonstrate the similarity between the Stormwater Management Pond and outfall 002, and request DEQ concurrence that the rerouting of the Stormwater Management Pond may be accomplished under the existing permit.

The results for the majority of parameters measured in the North Pond Toe Drain and the Metals Pond were similar to those measured in the Stormwater Management Pond. The North Pond Toe Drain had elevated concentrations of TSS, sulfate, biological oxygen demand (BOD), iron, manganese, and aluminum when compared to the other two effluents; however, for the majority of parameters, concentrations in the North Pond Toe Drain were lower than those measured in the other sources.

4.0 INTERIM PHASE OPERATING CONDITION

Interim operating conditions and discharge configurations will exist at the Station during the closure activities between October 2015 and April 2018.

4.1 Interim Phase Process Flow

Due to the transitional nature of the construction activities, process flow water routing for the North Ash Pond, West Ash Pond, East Ash Pond, Metals Pond, and the Stormwater Management Pond will vary as a result of the construction activities. These transitions in process water routing are grouped into two stages. Stage I includes the clean-closure of the eastern portion of the West Ash Pond and construction of the Low-volume Waste Pond (approximately until January 1, 2016). Stage II includes process water routing through construction of the cap during in-place closure activities for the North and East Ash Ponds.

The Stage I interim discharge configuration shown on Drawing 4 represents the time period covering the West Ash Pond clean-closure and re-purposing construction activities. These routing conditions are expected to be in place from the date for the re-routing of the discharge from the Stormwater Management Pond directly to outfall 002 (pending DEQ concurrence with the Notice of Planned Changes) through the end of January 2016, or until the new Low-volume Waste Pond is placed on line.

Prior to reissuance of the VPDES permit, contact stormwater from the West Ash Pond will be routed to a pre-treatment system for solids removal prior to placement in the North Ash Pond. This treatment and routing of West Ash Pond contact stormwater is consistent with what is allowed under the current permit. Consequently, Dominion will be submitting a separate Notice of Planned Changes to provide additional information and seek DEQ concurrence that the activity may be carried out under the existing permit.

As part of the permit reissuance process, Dominion would like to add outfall 002 (directly or indirectly via the Stormwater Management Pond) and outfall 003 as additional alternative locations for the discharge of the West Ash Pond contact stormwater. In all cases, the contact stormwater would be pre-treated for solids removal, with additional enhanced treatment as needed to ensure compliance with water quality standards and permit limits.

Non-contact construction stormwater from the West Ash Pond area will be routed for discharge under a VSMP permit. In addition, outfall 204 from the Stormwater Management Pond will be re-routed from the West Ash Pond directly to permitted outfall 002, with pre-treatment for solids removal (pending DEQ concurrence under a separate Notice of Planned Changes). The remaining source waters and discharge systems are not expected to change during the Stage I construction activities.

Specific operational descriptions for the outfalls that will be affected by the Stage I construction activities during the interim period are presented in the following sections and estimated flows for the interim phase operations (outfalls that will be affected by the interim operations) are summarized in the following table. In issuing the current VPDES permit, DEQ considered the North and West Ash Pond discharges to be substantially identical and assigned wasteload allocations based on the combined discharge flow. DEQ may want to permit the discharges that will result from the ash pond closure project in a similar manner. Consequently, we are providing the individual process wastewater flows for each outfall without contact stormwater, and the combined process water discharge flows for all three outfalls including contact stormwater. It should be noted that the contact stormwater will be generated and discharged on an intermittent basis as dictated by climatic conditions.

Stage I Outfall/Pond	Water Type	Without Contact Stormwater		Combined Discharge Flows Including Contact Stormwater	
		Avg. Flow (MGD)	Max. Flow (MGD)	Avg. Flow (MGD)	Max. Flow (MGD)
002 (SWMP)	CPSW	>1.26	>1.26	1.53	4.2912
004 (North Ash Pond)	CPSW	0.204	0.4090		
Metals Pond	CPSW discharge eliminated after one-time decant for clean closure. Decant water re-routed to treatment system with final discharge via Outfall 002 or 004.				

Note: MGD = million gallons per day
CPSW = commingled process and stormwater
SWMP = Stormwater Management Pond

The Stage II interim discharge configuration as shown on Drawing 5 represents the time period covering the North and East Ash Pond construction activities. The routing conditions are expected to be in place from the date the Low-volume Waste Pond (former West Ash Pond) is on line through April 17, 2018, or until the North and East Ash Pond closure activities are completed. As presented, contact stormwater and dewatering water from the North and East Ash Ponds will be routed to a pre-treatment system (enhanced treatment if needed) prior to discharge via one or more of the existing permitted outfalls (002, 003, 004, the Low-volume Waste Pond, or the Stormwater Management Pond). Non-construction stormwater from the North and East Ash Pond construction areas will be routed for discharge under a VSMP permit. In addition, outfall 204 from the Stormwater Management Pond will be re-routed to the Low-volume Waste Pond to outfall 002. The Metals Pond and its internal outfall (outfall 202) will be decommissioned, and the remaining systems are not expected to change during the Stage II construction activities.

Specific operational descriptions for the outfalls that will be affected by the Stage II construction activities during the interim period are presented in the following sections, and estimated flows for the interim

phase operations (outfalls that will be affected by the interim operations) are summarized in the following table. As done with the Stage I discharges, we are providing the individual process wastewater flows for each outfall without contact stormwater, and the combined process water discharge flows for all three outfalls including contact stormwater.

Stage II Outfall/Pond	Water Type	Without Contact Stormwater		Combined Discharge Flows Including Contact Stormwater	
		Avg. Flow (MGD)	Max. Flow (MGD)	Avg. Flow (MGD)	Max. Flow (MGD)
002 (Low-volume Waste Pond)	CPSW	1.53(1)	4.2912(2)	6.79	11.5512
204 (SWMP)	CPSW	>1.26(1)	>1.26(2)		
003 (East Ash Pond)	CPSW	SW(1)	SW(2)		
004 (North Ash Pond)	CPSW	SW(1)	SW(2)		

Note: MGD = million gallons per day
CPSW = commingled process and stormwater
SWMP = Stormwater Management Pond
SW = stormwater
(1) = flow may increase by 4.0 MGD if treatment system discharge is routed to this outfall
(2) = flow may increase by 6.0 MGD if treatment system discharge is routed to this outfall

4.1.1 Outfall 202 - Metals Pond

Dominion expects to commence with closure of the Metals Pond concurrently with the West Ash Pond closure activities in October 2015, with closure activities completed on or about March 1, 2016.

Closure of the Metals Pond is proposed through material removal and disposal at a permitted waste disposal facility. Contact stormwater generated during closure activities will either be routed to the re-purposed West Ash Pond (i.e., new Low-volume Waste Pond) or to the North Ash Pond (pending DEQ concurrence with the Notice of Planned Changes). Non-contact stormwater will be discharged under a VSMP permit after decommissioning activities are complete until the area achieves stabilization. Depending on site conditions, additional options to manage contact stormwater are proposed in the following table:

Metals Pond Water Source	Metals Pond Water Management Option
Contact stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Low-volume Waste Pond and discharge via outfall 002 (former West Ash Pond)

4.1.2 Outfall 002- West Ash Pond

Closure activities for the West Ash Pond are expected to begin on or before October 19, 2015, with pre-construction decanting completed by that date. As part of the closure activities, Dominion plans to clean-close the western section of the pond via CCR removal. The remaining eastern section of the pond will also be clean-closed via CCR removal, with this area re-purposed as the lined Low-volume Waste Pond. Closure and re-purposing of the eastern portion of the West Ash Pond is expected to be complete by January 1, 2016. The closure of the western area of the West Ash Pond is expected to be completed on or before April 17, 2018.

In preparation for, and during, construction, contact water will be discharged under the VPDES permit as presented herein, and non-contact construction stormwater will be discharged under a VSMP permit until final site stabilization is achieved. The influent water from the Stormwater Management Pond will be pre-treated (*i.e.*, filtered) and routed directly to outfall 002 during construction, or to the North Ash Pond's outfall 004. The influent water from the Metals Pond via outfall 202 will be eliminated.

Following re-routing of the Stormwater Management Pond discharge, contact stormwater from the West Ash Pond will be routed to the North Ash Pond with pre-treatment (*i.e.*, filtering) until approximately January 1, 2016 (Stage I activity). Contact stormwater from the remaining western portion of the West Ash Pond during clean-closure will be routed to the re-purposed West Ash Pond (*i.e.*, new Low-volume Waste Pond) with pre-treatment (*i.e.*, filtering). Non-contact stormwater will be discharged under a VSMP permit after CCR removal until the area achieves stabilization. Depending on site conditions, additional options to manage contact stormwater are proposed in the following table:

West Ash Pond Water Source	West Ash Pond Water Management Option
Contact stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Low-volume Waste Pond and discharge via outfall 002 (former West Ash Pond)

4.1.3 Outfall 003 - East Ash Pond

Closure activities for the East Ash Pond are expected to begin on or before March 1, 2016, with pre-construction dewatering initiated by January 1, 2016. Closure activities are expected to be completed on or before April 17, 2018. In preparation for, and during, construction of the closure cap, contact water and dewatering water will be discharged under the VPDES permit as presented herein, and non-contact construction stormwater will be discharged under a VSMP permit until final site stabilization is achieved.

As with the North Ash Pond, dewatering will be required to stabilize the materials for the required closure activities. It is expected that the dewatering activities will be performed with a combination of gravity-based decantation and mechanically assisted dewatering means, possibly including well points and dewatering trenches. Once the East Ash Pond materials are sufficiently dewatered to support construction activities, the East Ash Pond will be closed in place by capping in accordance with solid waste regulatory requirements. The flow from the proposed horizontal toe drains on the East Ash Pond will be routed to the existing Stormwater Management Pond and discharged through outfall 002 in the same manner as the existing toe drains from the North Ash Pond.

Outfall 003 is expected to continue receiving non-contact stormwater discharges from the East Ash Pond until January 1, 2016, at which time dewatering water is expected to be generated. Dewatering water will be pre-treated (filtered for TSS control) before being routed to the new, lined, Low-volume Waste Pond (former West Ash Pond) and discharged via outfall 002. Depending on site conditions, additional options to manage contact stormwater and dewatering water are proposed in the following table:

East Ash Pond Water Source	East Ash Pond Water Management Option
Commingled Process and Stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Low-volume Waste Pond and discharge via outfall 002 (former West Ash Pond)

4.1.4 Outfall 204 - Stormwater Management Pond

Prior to the initiation of the closure activities for the West Ash Pond, outfall 204 from the Stormwater Management Pond will be re-routed from the West Ash Pond directly to outfall 002 or outfall 004. It is expected that the Stormwater Management Pond will discharge directly via outfall 002 or outfall 004 until the Low-volume Waste Pond is placed on line and connected to outfall 002, at which time outfall 204 will be re-activated with the discharge directed to the Low-volume Waste Pond.

4.1.5 Outfall 004 - North Ash Pond

Closure activities for the North Ash Pond are expected to begin on or before March 1, 2016, with pre-construction dewatering initiated by January 1, 2016. Closure activities are to be completed on or before April 17, 2018. In preparation for, and during, construction of the closure cap, contact water and dewatering water will be discharged under the VPDES permit as presented herein, and non-contact construction stormwater will be discharged under a VSMP permit until final site stabilization is achieved.

Dewatering the CCR in the North Ash Pond will be accomplished through a combination of gravity-based decantation and mechanically assisted dewatering means, possibly including additional well points and dewatering trenches. Once the North Ash Pond materials are sufficiently dewatered to support construction activities, the North Ash Pond will be closed in place by capping.

Outfall 004 will continue to receive impoundment decant water from the North Ash Pond until January 1, 2016, at which time dewatering water is expected to be generated. Dewatering water will be pre-treated (filtered for TSS control) before being routed to the new, lined, Low-volume Waste Pond (former West Ash Pond) and discharged via outfall 002. Depending on site conditions, additional options to manage contact stormwater and dewatering water are proposed in the following table. Treatment will

be provided as necessary to ensure compliance with Virginia Surface Water Quality Standards following treatment.

North Ash Pond Water Source	North Ash Pond Water Management Options
Commingled Process and Stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Low-volume Waste Pond and discharge via outfall 002 (former West Ash Pond)

4.2 Interim Period Conceptual Engineering Report

Based on the characteristics of the expected source waters that will be generated during the transitional construction period as represented by the results summarized in Table 2, a conceptual pre- and enhanced treatment system has been designed to attenuate elevated concentrations of selected analytes. The analytes of primary concern are TSS and certain metals.

As proposed, the pre-treatment system is designed to be flexible in operation such that wastewaters can effectively managed and treated separately or in combination to the level necessary for compliance with permit requirements and surface water quality standards. The enhanced treatment system will be constructed to manage up to 4.0 MGD on average, with a maximum capacity of 6.0 MGD, and will be operated as needed based on the characteristics of the source water(s) being managed at the time of the discharge. The conceptual pre-treatment system design has provisions for TSS control (filtration) for various source waters during construction as a minimum control measure. More advanced treatment will be used in conjunction with filtration as needed to meet VPDES permit limits.

4.2.1 Commingled Process and Stormwater

At this time, it is expected that TSS controls (filtration) will be sufficient to meet permit limits for the commingled contact stormwater, dewatering water, and toe drain water generated during the Stages I and II construction activities. Accordingly, these source waters will be routed to one or more water treatment units for TSS control. Additional enhanced treatment would be utilized with these wastewaters if determined necessary to meet limits.

4.2.2 Ash Dewatering Water

The enhanced treatment option for source water generated during dewatering of the CCR for the North and East Ash Ponds during closure activities includes routing the source water to a mixing tank (Source Water) and then decanting to a polymerization tank for flocculent formation using gypsum, or National Science Foundation (NSF) certified anionic and/or cationic polymers, and/or coagulants as needed to attenuate the elevated TSS concentrations.

The treated source water will then be routed to a primary settling tank where settled/underflow solids from primary settling will be recovered, dewatered, and disposed of off-site in a solid waste facility permitted to accept the materials.

The overflow will decant to a pH buffering/aeration tank to assist with metals removal, if required, then will decant to a secondary settling tank with pH buffering as needed. The settled/underflow solids from the secondary settling tank will be recovered, dewatered, and disposed of off-site in a solid waste facility permitted to accept the materials.

The decant water from the secondary settling tank will be routed to a pH neutralization tank (pH buffering as needed) where it will then be discharged to one of the permitted outfalls or the Stormwater Management Pond.

To verify the operational efficiency of the pre-treatment system, the system will be monitored using a combination of monitoring equipment for turbidity (as a surrogate for TSS) and pH, with additional sampling performed between Stages I and II, and at the outfall(s), for constituents as required for VPDES permit compliance.

Additional or alternative enhanced treatment methods may be employed if determined necessary.

5.0 FINAL OPERATING CONDITION

The final operating conditions and discharge configurations that will exist at the Station following closure activities are described in this section. It is expected that final conditions for the Station will be in place no later than April 2018; however, certain outfalls will reach a final operating configuration prior to April 2018 as the closure activities are progressively completed. Details for the final operating configuration are summarized in the following sections.

5.1 Final Phase Process Flow

A conceptual process flow diagram for the post-construction water management configuration is presented on the One-line Diagram in Appendix III. As presented, since no additional CCR management water will be generated at that time, it is expected that the post-construction VPDES permit will no longer require any pre-treatment to meet permit limitations.

The closed North and East Ash Ponds, the western area of the former West Ash Pond, the decommissioned Metals Pond area, and the area inside of the Flood Wall will be operated as No Exposure areas with non-contact, no exposure stormwater discharges to new surface water outfalls (007 and 008). The STP discharge will continue to be routed to the Stormwater Management Pond via outfall 203, which in turn will be routed to the Low-volume Waste Pond via outfall 204. The Low-volume Waste Pond will discharge via outfall 002.

Specific operational descriptions for the outfalls that will be affected by the construction activities following completion of construction activities are presented in the following sections, and estimated flows for Outfall 002 during the post closure final phase operations are summarized in the following table.

Outfall/Pond	Water Type	Avg. Flow (MGD)	Max. Flow (MGD)
002 (Low-volume Waste Pond)	CPSW	1.53	4.2912

Note: MGD = million gallons per day
CPSW = commingled process and stormwater

5.1.1 Outfall 008 - North Ash Pond

Following the completion of closure activities on or before April 17, 2018, the North Ash Pond will be maintained as a No Exposure industrial area, with the non-contact stormwater discharged via a new surface water outfall (proposed outfall 008) on the southern side of the closed East Ash Pond (see Drawing 6). Additionally, after closure, the flow from the existing embankment toe drains on the North Ash Pond will continue to be routed to the existing Stormwater Management Pond for treatment and discharge through outfall 002.

5.1.2 Outfall 007 - East Ash Pond

Following the completion of closure activities on or before April 17, 2018, the East Ash Pond will be maintained as a No Exposure industrial area, with the non-contact stormwater discharged via a new surface water outfall (proposed outfall 008) on the southern side of the closed East Ash Pond (see Drawing 6). A toe drain will be installed during closure of the pond, and water that is captured by this system will be directed to the existing Stormwater Management Pond for treatment and discharge through Outfall 002.

5.1.3 Outfall 002 - Low-volume Waste Pond

Following removal of the CCR, the re-purposed eastern portion of the former West Ash Pond area will be lined with a 60-mil flexible Ethylene Propylene Diene Monomer (EPDM) liner system and placed back in service on or before January 1, 2016, as the Low-volume Waste Pond with a discharge via Outfall 002.

Following the completion of the remaining West Ash Pond closure activities (western portion) on or before April 17, 2018, the clean-closed area will be maintained as a No Exposure industrial area, with the non-contact stormwater discharged under sheet flow conditions.

5.1.4 Outfall 204 - Stormwater Management Pond

Following closure of the West Ash Pond and construction of the new Low-volume Waste Pond with its connection to outfall 002, outfall 204 will be re-routed to the Low-volume Waste Pond.

5.1.5 Metals Pond

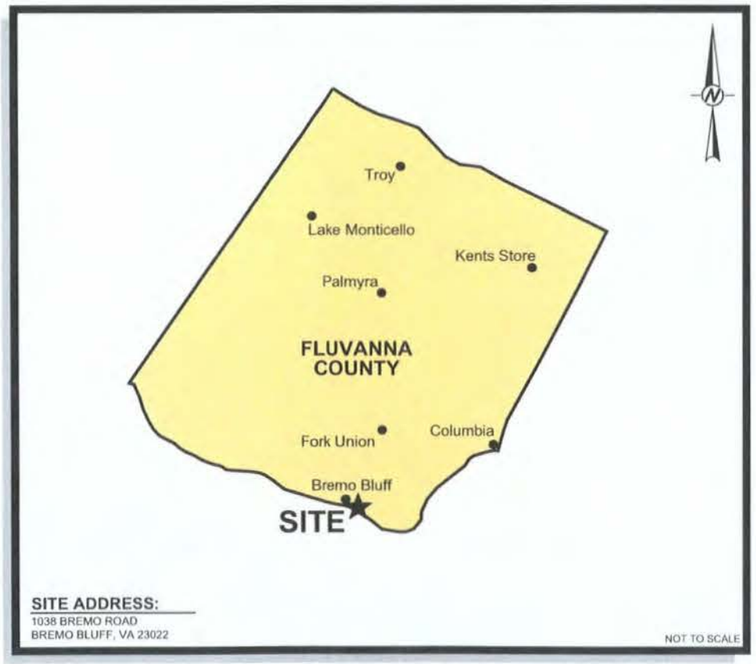
Following completion of the Metals Pond closure activities on or before March 1, 2016, outfall 202 will be eliminated and the closed area will be maintained as a No Exposure industrial area, with the non-contact stormwater discharged under sheet flow conditions.

Bremo Permit Application Addendum - VPDES Permit No VA0004138 (final).docx

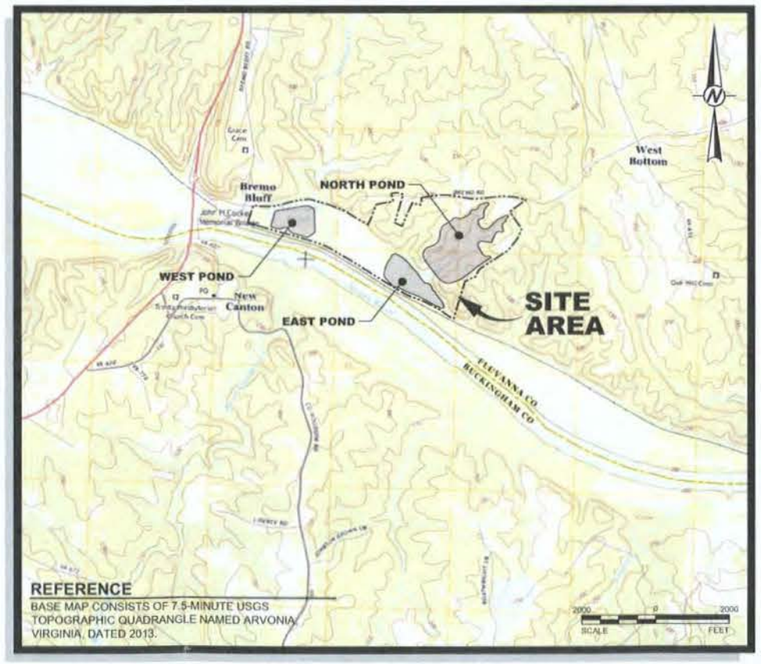
DRAWINGS

DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

FORK UNION MAGISTERIAL DISTRICT
FLUVANNA COUNTY, VIRGINIA
JULY 2015



VICINITY MAP



SITE LOCATION MAP

SHEET LIST TABLE	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING OUTFALL LOCATION MAP
3	PROCESS FLOW DIAGRAM (EXISTING CONDITIONS)
4	PROCESS FLOW DIAGRAM (STAGE I CONSTRUCTION) 2015 TIME FRAME
5	PROCESS FLOW DIAGRAM (STAGE II CONSTRUCTION) 2016-2018
6	PROPOSED OUTFALL LOCATION MAP

REFERENCE:

1. EXISTING CONDITIONS COMPILED FROM:
   a. AERIAL IMAGING PREPARED BY McKENZIE SNYDER, INC., DATE OF AERIAL PHOTO: 1/16/15 [CONTROL PREPARED BY H&B SURVEYING & MAPPING (H&B)]
   b. BOUNDARY SURVEY PREPARED BY H&B SURVEYING AND MAPPING, LLC DATED 04/27/15.

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DOMINION-BREMO POWER STATION
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GLEN ALLEN, VA 23060
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PREPARED BY: Golder Associates

PREPARED FOR: Dominion

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
COVER SHEET

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H01
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 1	
REVIEW	JRD	06/30/15		

© Plan Production Data Files\Drawing Data Files\15-20347H - Permit Application Amendment\Active Drawings\1520347H01.dwg | Layout: 1 COVER SHEET | Modified: abmartin 07/22/2015 2:31 PM | Plotted: abmartin 07/31/2015

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT

DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE

EXISTING OUTFALL LOCATION MAP

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H02
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
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CHECK	ATN	06/30/15		DRAWING 2
REVIEW	JRD	06/30/15		

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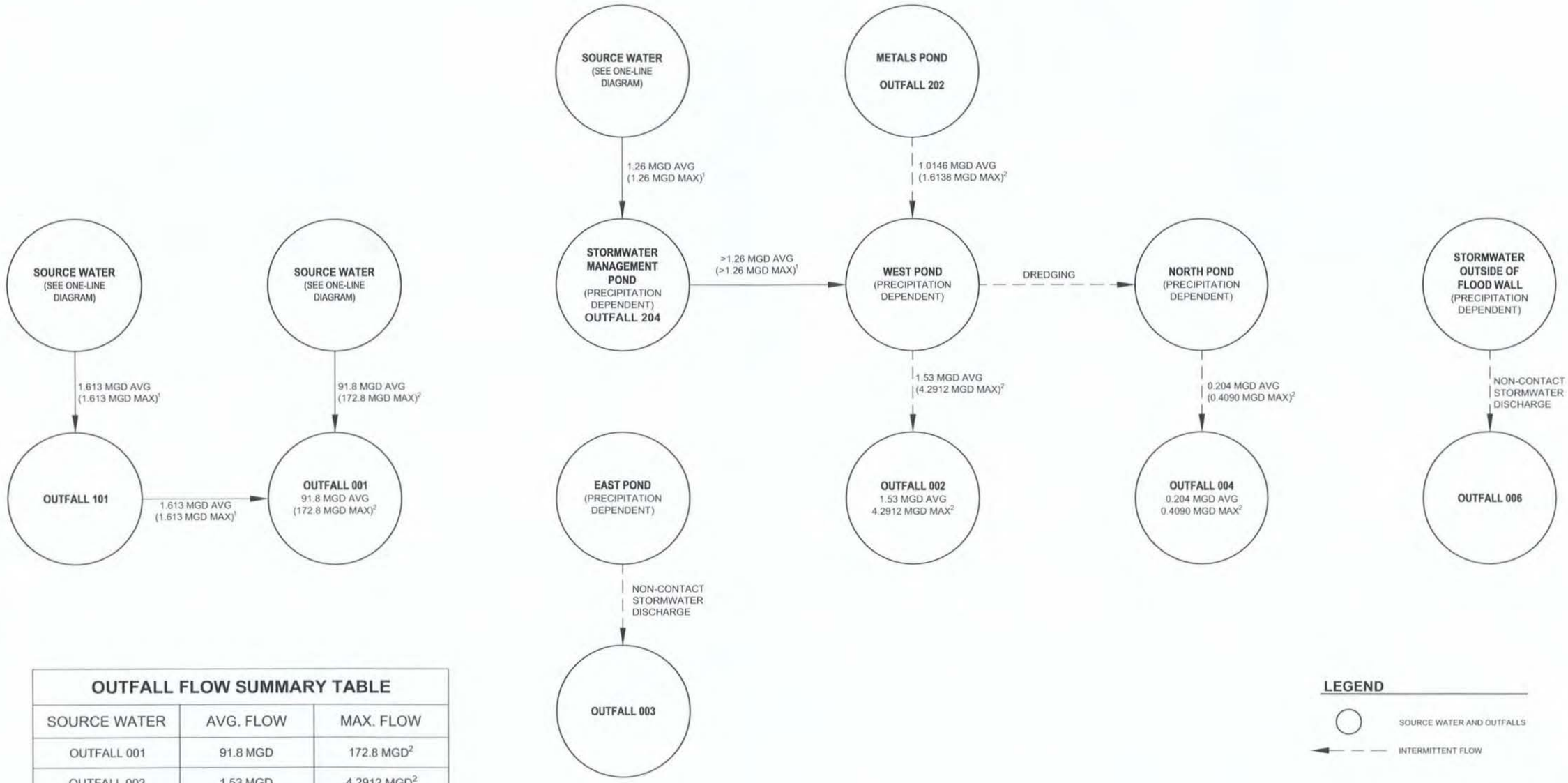

OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD	4.2912 MGD[2]
OUTFALL 004	0.204 MGD	0.4090 MGD[2]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE STORMWATER MANAGEMENT POND ARE INCLUDED IN THE FLOWS IDENTIFIED FOR THE WEST POND.
6. MAXIMUM FLOWS FROM THE NORTH POND WERE ASSUMED TO BE THE MAXIMUM FLOWS FROM THE WEST POND DURING DREDGING.

LEGEND

SOURCE WATER AND OUTFALLS

INTERMITTENT FLOW

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
PROCESS FLOW DIAGRAM (EXISTING CONDITIONS)

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 3	
REVIEW	JRD	06/30/15		

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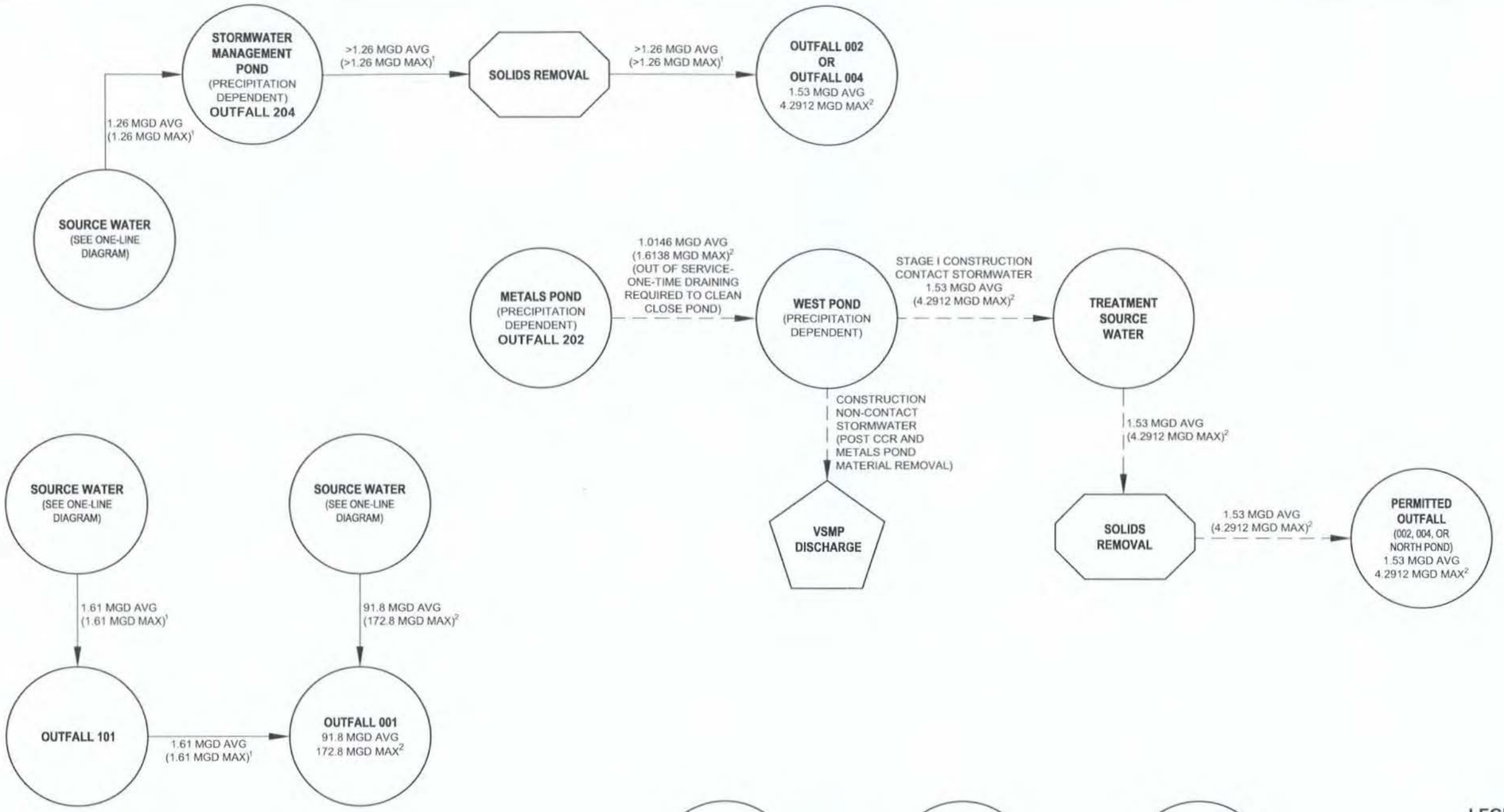
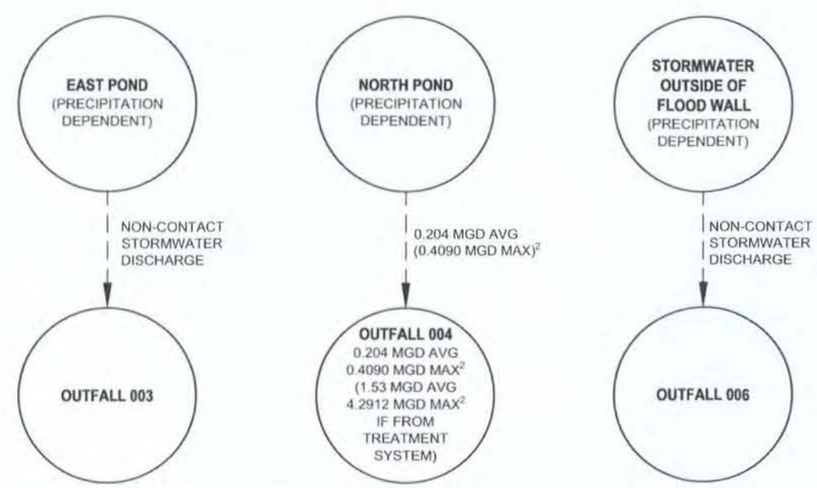


OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD	4.2912 MGD[2]
OUTFALL 004	0.204 MGD/1.53 MGD	0.4090 MGD[2]/4.2912 MGD[2]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE METALS POND ARE INCLUDED IN THE FLOWS IDENTIFIED FOR THE WEST POND.
6. FLOWS FROM OUTFALL 003 AND 004 WILL INCREASE AS SHOWN IF FLOWS FROM THE TREATMENT SYSTEM ARE INCLUDED.



LEGEND

- VIRGINIA STORMWATER MANAGEMENT PROGRAM
- ENHANCED TREATMENT (AS NEEDED)
- SOURCE WATER AND OUTFALLS
- SOLIDS REMOVAL
- INTERMITTENT FLOW

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
PROCESS FLOW DIAGRAM (STAGE I CONSTRUCTION) 2015 TIME FRAME

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
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CHECK	ATN	06/30/15	DRAWING 4	
REVIEW	JRD	06/30/15		

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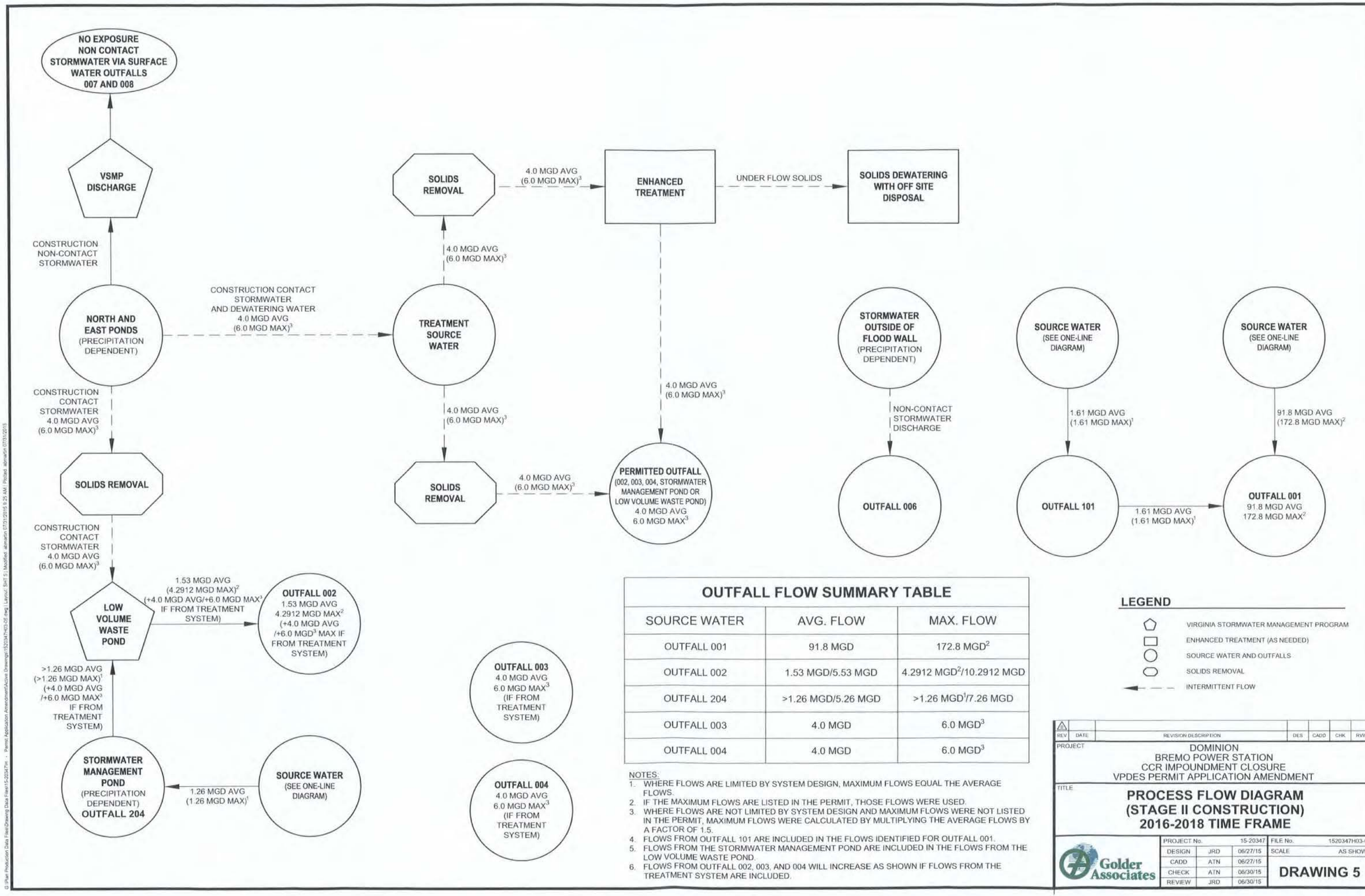

OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD/5.53 MGD	4.2912 MGD[2]/10.2912 MGD
OUTFALL 204	>1.26 MGD/5.26 MGD	>1.26 MGD[1]/7.26 MGD
OUTFALL 003	4.0 MGD	6.0 MGD[3]
OUTFALL 004	4.0 MGD	6.0 MGD[3]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE STORMWATER MANAGEMENT POND ARE INCLUDED IN THE FLOWS FROM THE LOW VOLUME WASTE POND.
6. FLOWS FROM OUTFALL 002, 003, AND 004 WILL INCREASE AS SHOWN IF FLOWS FROM THE TREATMENT SYSTEM ARE INCLUDED.

LEGEND

- VIRGINIA STORMWATER MANAGEMENT PROGRAM
- ENHANCED TREATMENT (AS NEEDED)
- SOURCE WATER AND OUTFALLS
- SOLIDS REMOVAL
- INTERMITTENT FLOW

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
PROCESS FLOW DIAGRAM (STAGE II CONSTRUCTION) 2016-2018 TIME FRAME

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 5	
REVIEW	JRD	06/30/15		

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REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
PROPOSED OUTFALL LOCATION MAP

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 6	
REVIEW	JRD	06/30/15		

G:\Plan Production Data Files\Drawing Data Files\15-20347\H\ - Permit Application Amendment\Active Drawings\1520347H03.dwg | Layout: PROPOSED OUTFALL LOCATION MAP | Modified: ajenkins 06/05/2015 1:23 PM | Plotted: ajenkins 06/05/2015

TABLES

Table 1
Summary of Process Water Characterization Analyses
Bremo Power Station

Sample Date	Location	Orignial list													EPA Form C					DEQ Attachment A														
		Alkalinity	Fluoride	Nitrate/Nitrite	Oil & Grease	Radium 226 & 228	Ammonia	Sulfate	TDS	BOD	TSS	Metals	Hex. Chromium	Mercury	COD	TOC	Bromide	TKN	Phosphorous, Total	Metals	Mercury, dissolved	Hex. Chromium, dissolved	Pesticides/PCBs	Base Neutral Extractables	Volatiles	Acid Extractables	Ammonia as NH3-N	Chloride	FIELD - Total Residual Chlorine	Cyanide, Free	E. Coli / Enterococcus	Sulfide, dissolved	Tributyltin	Hardness
		E310.2	E300	E353.2	E1664B	E903.1/SW9320	EPA350.1	E300	SM2540D	SM5210B	SM2540D	SW6010C/SW602 0A	SM3500	SW7470	SM5220	SM5310C	EPA300	EPA351.2	SM4500	EPA200.7/200.8	EPA245.1		EPA625/622/614	EPA625	EPA624	EPA625/ASTM D7065-06	EPA350.1	EPA300	FIELD	SM4500	Colilert 18 QT/Enterolert	HACH8131		SM2340B
3/31/2015	PZ-1 (North Pond)	X	X	X	X	X	X	X	X	X	X	X		X														X						
	PZ-2 (East Pond)	X	X	X	X	X	X	X	X	X	X	X		X														X						
4/15/2015	PZ-1 (North Pond)	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
	PZ-2 (East Pond)	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
	Metals Pond			X	X	X	X	X	X		X	X	X	X			X	X	X									X						
	SWM Pond			X	X	X	X	X	X		X	X	X	X			X	X	X									X						
	North Pond Toe Drain	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
5/21/2015	PZ-1 (North Pond)	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PZ-2 (East Pond)	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Metals Pond	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	SWM Pond	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6/4/2015	PZ-1 (North Pond)														X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PZ-2 (East Pond)														X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Metals Pond	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	SWM Pond	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	North Pond Toe Drain	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6/16/2015	North Pond Toe Drain			X	X			X	X		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Parameter	Sample Date	Method					
Bacteria (mpn/100ml)							
Entrococci	05/21/2015	Enterolert	8	18	--	156	8
Entrococci	06/04/2015	Enterolert	34	73	1	921	12
Entrococci	06/16/2015	Enterolert	--	--	< 1	--	--
Escherichia coli	01/20/2015	SM9223F	--	--	--	--	30
Escherichia coli	05/21/2015	COLILERT-18 QT	< 1	< 1	--	261	4
Escherichia coli	06/04/2015	COLILERT-18 QT	4	< 1	< 1	613	23
Escherichia coli	06/16/2015	COLILERT-18 QT	--	--	< 1	--	--
Dissolved Metals (ug/L)							
Aluminum	01/20/2015	SM3111B	--	--	--	--	< 130
Aluminum	03/31/2015	SW6010C	78.3	61.2	--	--	--
Aluminum	04/15/2015	SW6010C	166	47.8	163	--	--
Aluminum	05/21/2015	E200.7	26.8	20.3	--	< 20.0	28.8
Aluminum	06/04/2015	E200.7	41.4	38.6	< 20.0	< 20.0	< 20.0
Aluminum	06/16/2015	E200.7	--	--	< 20.0	--	--
Antimony	01/20/2015	SM3113B	--	--	--	--	< 1
Antimony	03/31/2015	SW6020A	15.0	21.4	--	--	--
Antimony	04/15/2015	SW6020A	13.7	--	0.378	--	--
Antimony	05/21/2015	E200.8	2.53	11.1	--	< 0.110	0.615
Antimony	06/04/2015	E200.8	3.54	9.41	< 0.110	< 0.110	0.230
Antimony	06/16/2015	E200.8	--	--	< 0.110	--	--
Arsenic	01/20/2015	SM3113B	--	--	--	--	< 2
Arsenic	03/31/2015	SW6010C	103	30.6	--	--	--
Arsenic	04/15/2015	SW6010C	211	69.1	< 6.80	< 6.80	< 6.80
Arsenic	05/21/2015	E200.8	453	604	--	1.89	5.90
Arsenic	05/21/2015	E200.9	--	28.8	--	--	--
Arsenic	06/04/2015	E200.8	318	29.5	< 0.610	2.57	3.18
Arsenic	06/04/2015	E200.9	--	345	--	--	--
Arsenic	06/16/2015	E200.8	--	--	< 0.610	--	--
Barium	01/20/2015	SM3113B	--	--	--	--	39
Barium	03/31/2015	SW6010C	224	617	--	--	--
Barium	04/15/2015	SW6010C	648	788	109	--	--
Barium	05/21/2015	E200.7	637	742	--	55.9	117
Barium	06/04/2015	E200.7	598	629	13.9	47.6	96.8
Barium	06/16/2015	E200.7	--	--	13.7	--	--
Beryllium	01/20/2015	SM3113B	--	--	--	--	< 0.2
Beryllium	03/31/2015	SW6010C	< 0.100	< 0.100	--	--	--
Beryllium	04/15/2015	SW6010C	< 0.100	< 0.100	< 0.100	--	--
Beryllium	05/21/2015	E200.7	< 2.0	< 2.0	--	< 2.0	< 2.0
Beryllium	06/04/2015	E200.7	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Beryllium	06/16/2015	E200.7	--	--	< 2.0	--	--
Boron	03/31/2015	SW6010C	1290	2420	--	--	--
Boron	04/15/2015	SW6010C	2880	2310	390	230	428
Boron	05/21/2015	E200.7	1590	1580	--	229	414
Boron	06/04/2015	E200.7	1700	1610	789	246	258
Boron	06/16/2015	E200.7	--	--	803	--	--
Cadmium	01/20/2015	SM3113B	--	--	--	--	< 0.3
Cadmium	03/31/2015	SW6010C	< 0.360	< 0.360	--	--	--
Cadmium	04/15/2015	SW6010C	< 0.360	< 0.360	< 0.360	< 0.360	< 0.360

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Cadmium	05/21/2015	E200.8	< 2.20	**7.05**	--	< 0.110	< 0.110
Cadmium	06/04/2015	E200.8	**0.120**	**0.125**	< 0.110	< 0.110	< 0.110
Cadmium	06/16/2015	E200.8	--	--	< 0.110	--	--
Calcium	03/31/2015	SW6010C	**53500**	**117000**	--	--	--
Calcium	04/15/2015	SW6010C	**126000**	**142000**	**32100**	**119000**	**36500**
Calcium	05/21/2015	E200.7	**118000**	**115000**	--	**112000**	**34300**
Calcium	06/04/2015	E200.7	**1180**	**110000**	**31400**	**121000**	**29100**
Calcium	06/16/2015	E200.7	--	--	**20800**	--	--
Chromium	01/20/2015	E200.7	--	--	--	--	< 10
Chromium	01/20/2015	SM3113B	--	--	--	--	< 10
Chromium	03/31/2015	SW6010C	< 1.00	**1.05**	--	--	--
Chromium	04/15/2015	SW6010C	**1.15**	< 1.00	< 1.00	< 1.00	< 1.00
Chromium	05/21/2015	E200.8	< 9.00	**223**	--	< 0.450	< 0.450
Chromium	06/04/2015	E200.8	< 0.450	< 4.50	< 0.450	< 0.450	< 0.450
Chromium	06/16/2015	E200.8	--	--	< 0.450	--	--
Chromium (III)	05/21/2015	CALC	< 10	**223**	--	< 10	< 10
Chromium (III)	06/04/2015	CALC	< 10	< 10	< 10	< 10	< 10
Chromium (III)	06/16/2015	CALC	--	--	< 5	--	--
Cobalt	01/20/2015	SM3113B	--	--	--	--	< 0.6
Cobalt	03/31/2015	SW6010C	**1.58**	**3.90**	--	--	--
Cobalt	04/15/2015	SW6010C	**2.62**	**4.55**	< 1.10	--	--
Cobalt	05/21/2015	E200.7	< 2.0	**20.0**	--	< 2.0	< 2.0
Cobalt	06/04/2015	E200.7	< 2.0	**3.4**	< 2.0	< 2.0	< 2.0
Cobalt	06/16/2015	E200.7	--	--	< 2.0	--	--
Copper	01/20/2015	SM3113B	--	--	--	--	**6**
Copper	03/31/2015	SW6010C	**1.82**	**1.91**	--	--	--
Copper	04/15/2015	SW6010C	**2.51**	**2.01**	**2.25**	**4.36**	**4.44**
Copper	05/21/2015	E200.8	< 4.40	**773**	--	**2.29**	**1.51**
Copper	05/21/2015	E200.9	--	**3.5**	--	--	--
Copper	06/04/2015	E200.8	**2.41**	**2.30**	**0.344**	**1.92**	**2.02**
Copper	06/04/2015	E200.9	--	**433**	--	--	--
Copper	06/16/2015	E200.8	--	--	**0.724**	--	--
Hexavalent Chromium	01/20/2015	SM3500-CR-B	--	--	--	--	< 5
Hexavalent Chromium	05/21/2015	SM3500-CR-B	< 5	< 5	--	< 5	< 5
Hexavalent Chromium	06/04/2015	SM3500-CR-B	< 5	< 5	< 5	< 5	< 5
Hexavalent Chromium	06/16/2015	SM3500-CR-B	--	--	< 5	--	--
Iron	01/20/2015	SM3111B	--	--	--	--	**60**
Iron	03/31/2015	SW6010C	**44.8**	**196**	--	--	--
Iron	04/15/2015	SW6010C	**57.4**	< 22.0	**601**	< 22.0	**160**
Iron	05/21/2015	E200.7	< 3.0	< 3.0	--	**7.4**	**4.5**
Iron	06/04/2015	E200.7	**3.0**	< 3.0	**8.9**	< 3.0	< 3.0
Iron	06/16/2015	E200.7	--	--	**5.7**	--	--
Lead	01/20/2015	SM3113B	--	--	--	--	< 1
Lead	03/31/2015	SW6010C	< 3.10	< 3.10	--	--	--
Lead	04/15/2015	SW6010C	< 3.10	< 3.10	< 3.10	< 3.10	< 3.10
Lead	05/21/2015	E200.8	< 3.20	**52.7**	--	< 0.160	< 0.160
Lead	06/04/2015	E200.8	< 0.160	**0.185**	< 0.160	< 0.160	< 0.160
Lead	06/16/2015	E200.8	--	--	< 0.160	--	--
Lithium	03/31/2015	SW6010C	**249**	**305**	--	--	--
Lithium	04/15/2015	SW6010C	**454**	**340**	**5.53**	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Lithium	05/21/2015	SW6010C	--	--	--	< 1.2	< 1.2
Lithium	06/04/2015	SW6010C	68	520	< 1.2	370	< 1.2
Lithium	06/16/2015	SW6010C	--	--	< 1.2	--	--
Magnesium	01/20/2015	SM3111B	--	--	--	--	4450
Magnesium	03/31/2015	SW6010C	14400	27300	--	--	--
Magnesium	04/15/2015	SW6010C	32600	24700	13400	4240	11300
Magnesium	05/21/2015	E200.7	25800	19800	--	4120	10600
Magnesium	06/04/2015	E200.7	25400	22400	6640	4640	8130
Magnesium	06/16/2015	E200.7	--	--	6830	--	--
Manganese	01/20/2015	SM3111B	--	--	--	--	40
Manganese	03/31/2015	SW6010C	358	231	--	--	--
Manganese	04/15/2015	SW6010C	886	438	220	9.78	49.1
Manganese	05/21/2015	E200.7	876	873	--	< 2.0	< 2.0
Manganese	06/04/2015	E200.7	20.5	138	< 2.0	< 2.0	< 2.0
Manganese	06/16/2015	E200.7	--	--	< 2.0	--	--
Mercury	01/20/2015	SM3112B	--	--	--	--	< 0.02
Mercury	03/31/2015	SW7470A	< 0.170	< 0.170	--	--	--
Mercury	04/15/2015	SW7470A	< 0.170	< 0.170	< 0.170	< 0.170	< 0.170
Mercury	05/21/2015	E245.1	< 0.023	< 0.023	--	< 0.023	< 0.023
Mercury	06/04/2015	E245.1	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
Mercury	06/16/2015	E245.1	--	--	< 0.023	--	--
Molybdenum	01/20/2015	SM3113B	--	--	--	--	7
Molybdenum	03/31/2015	SW6010C	232	93.6	--	--	--
Molybdenum	04/15/2015	SW6010C	313	58.6	< 2.50	--	--
Molybdenum	05/21/2015	E200.7	83.9	< 50.0	--	< 50.0	< 50.0
Molybdenum	06/04/2015	E200.7	98.5	< 50.0	< 50.0	< 50.0	< 50.0
Molybdenum	06/16/2015	E200.7	--	--	< 50.0	--	--
Nickel	01/20/2015	SM3113B	--	--	--	--	< 5
Nickel	03/31/2015	SW6010C	4.49	14.2	--	--	--
Nickel	04/15/2015	SW6010C	14.6	15.3	7.10	14.4	8.60
Nickel	05/21/2015	E200.8	< 6.40	187	--	9.50	1.44
Nickel	06/04/2015	E200.8	3.47	28.2	0.528	25.9	1.44
Nickel	06/16/2015	E200.8	--	--	0.327	--	--
Potassium	03/31/2015	SW6010C	9710	14200	--	--	--
Potassium	04/15/2015	SW6010C	12600	15500	1850	--	--
Potassium	05/21/2015	E200.7	10500	14400	--	29700	3360
Potassium	06/04/2015	E200.7	9840	14200	1010	27200	3290
Potassium	06/16/2015	E200.7	--	--	1010	--	--
Selenium	01/20/2015	SM3113B	--	--	--	--	< 2
Selenium	03/31/2015	SW6010C	< 5.00	< 5.00	--	--	--
Selenium	04/15/2015	SW6010C	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Selenium	05/21/2015	E200.8	< 13.0	< 19.5	--	3.36	< 0.650
Selenium	06/04/2015	E200.8	< 0.650	7.24	< 0.650	5.29	< 0.650
Selenium	06/16/2015	E200.8	--	--	< 0.650	--	--
Silver	01/20/2015	SM3113B	--	--	--	--	< 0.1
Silver	03/31/2015	SW6020A	< 0.100	< 0.100	--	--	--
Silver	04/15/2015	SW6010C	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90
Silver	05/21/2015	E200.8	< 0.580	< 0.870	--	< 0.029	< 0.029
Silver	06/04/2015	E200.8	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029
Silver	06/16/2015	E200.8	--	--	< 0.029	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Sodium	03/31/2015	SW6010C	**79600**	**12200**	--	--	--
Sodium	04/15/2015	SW6010C	**41800**	**10400**	**20000**	--	--
Sodium	05/21/2015	E200.7	**16100**	**9250**	--	**9620**	**19300**
Sodium	06/04/2015	E200.7	**14400**	**9240**	**21500**	**9580**	**14900**
Sodium	06/16/2015	E200.7	--	--	**21600**	--	--
Sulfide	05/21/2015	H8131	< 6	< 6	--	< 6	< 6
Sulfide	06/04/2015	H8131	< 6	< 6	< 6	< 6	< 6
Sulfide	06/16/2015	H8131	--	--	< 6	--	--
Thallium	01/20/2015	E279.2	--	--	--	--	< 0.3
Thallium	03/31/2015	SW6020A	**0.531**	**0.531**	--	--	--
Thallium	04/15/2015	SW6020A	**0.345**	--	< 0.110	**0.141**	< 0.110
Thallium	05/21/2015	E200.8	< 1.16	**19.3**	--	< 0.058	**0.061**
Thallium	06/04/2015	E200.8	**0.442**	**2.08**	< 0.058	< 0.058	< 0.058
Thallium	06/16/2015	E200.8	--	--	< 0.058	--	--
Vanadium	03/31/2015	SW6010C	**76.1**	**121**	--	--	--
Vanadium	04/15/2015	SW6010C	**88.8**	**186**	< 1.40	--	--
Vanadium	05/21/2015	E200.7	**30.1**	**134**	--	< 2.0	< 2.0
Vanadium	06/04/2015	E200.7	**22.4**	**291**	< 2.0	< 2.0	< 2.0
Vanadium	06/16/2015	E200.7	--	--	< 2.0	--	--
Zinc	01/20/2015	SM3111B	--	--	--	--	< 10
Zinc	03/31/2015	SW6010C	< 3.80	< 3.80	--	--	--
Zinc	04/15/2015	SW6010C	**4.99**	**3.85**	< 3.80	< 3.80	< 3.80
Zinc	05/21/2015	E200.8	< 32.0	**284**	--	**3.70**	**1.90**
Zinc	06/04/2015	E200.8	**2.89**	< 16.0	**2.05**	**4.46**	**1.70**
Zinc	06/16/2015	E200.8	--	--	**7.62**	--	--
PCBs (ug/L)							
Aroclor 1016	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1016	05/21/2015	E608	< 0.03	< 0.03	--	< 0.03	< 0.03
Aroclor 1016	06/04/2015	E608	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Aroclor 1016	06/16/2015	E608	--	--	< 0.03	--	--
Aroclor 1221	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1221	05/21/2015	E608	< 0.2	< 0.2	--	< 0.2	< 0.2
Aroclor 1221	06/04/2015	E608	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor 1221	06/16/2015	E608	--	--	< 0.2	--	--
Aroclor 1232	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1232	05/21/2015	E608	< 0.02	< 0.02	--	< 0.02	< 0.02
Aroclor 1232	06/04/2015	E608	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1232	06/16/2015	E608	--	--	< 0.02	--	--
Aroclor 1242	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1242	05/21/2015	E608	< 0.05	< 0.04	--	< 0.05	< 0.04
Aroclor 1242	06/04/2015	E608	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Aroclor 1242	06/16/2015	E608	--	--	< 0.04	--	--
Aroclor 1248	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1248	05/21/2015	E608	< 0.05	< 0.05	--	< 0.06	< 0.05
Aroclor 1248	06/04/2015	E608	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aroclor 1248	06/16/2015	E608	--	--	< 0.05	--	--
Aroclor 1254	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1254	05/21/2015	E608	< 0.04	< 0.04	--	< 0.04	< 0.04
Aroclor 1254	06/04/2015	E608	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Aroclor 1254	06/16/2015	E608	--	--	< 0.04	--	--
Aroclor 1260	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1260	05/21/2015	E608	< 0.04	< 0.03	--	< 0.04	< 0.04
Aroclor 1260	06/04/2015	E608	< 0.03	< 0.04	< 0.03	< 0.04	< 0.04
Aroclor 1260	06/16/2015	E608	--	--	< 0.04	--	--
Pesticides (ug/L)							
4,4-DDD	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDD	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDD	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDD	06/16/2015	E608	--	--	< 0.005	--	--
4,4-DDE	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDE	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDE	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDE	06/16/2015	E608	--	--	< 0.005	--	--
4,4-DDT	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDT	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDT	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDT	06/16/2015	E608	--	--	< 0.005	--	--
Aldrin	01/20/2015	E608	--	--	--	--	< 0.057
Aldrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Aldrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Aldrin	06/16/2015	E608	--	--	< 0.005	--	--
alpha-BHC	01/20/2015	E608	--	--	--	--	< 0.057
alpha-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-BHC	06/16/2015	E608	--	--	< 0.005	--	--
alpha-Chlordane	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-Chlordane	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-Chlordane	06/16/2015	E608	--	--	< 0.005	--	--
alpha-Endosulfan	01/20/2015	E608	--	--	--	--	< 0.057
alpha-Endosulfan	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-Endosulfan	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-Endosulfan	06/16/2015	E608	--	--	< 0.005	--	--
Azinphos-methyl	01/20/2015	E622	--	--	--	--	< 1
Azinphos-methyl	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Azinphos-methyl	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Azinphos-methyl	06/16/2015	E622	--	--	< 2.1	--	--
beta-BHC	01/20/2015	E608	--	--	--	--	< 0.057
beta-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
beta-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
beta-BHC	06/16/2015	E608	--	--	< 0.005	--	--
beta-Endosulfan	01/20/2015	E608	--	--	--	--	< 0.057
beta-Endosulfan	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
beta-Endosulfan	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
beta-Endosulfan	06/16/2015	E608	--	--	< 0.005	--	--
Chlordane	01/20/2015	E608	--	--	--	--	< 0.227
Chlordane	05/21/2015	E608	< 0.222	< 0.202	--	< 0.235	< 0.208

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Chlordane	06/04/2015	E608	< 0.200	< 0.215	< 0.204	< 0.206	< 0.213
Chlordane	06/16/2015	E608	--	--	< 0.206	--	--
Chlorpyrifos	01/20/2015	E622	--	--	--	--	< 0.2
Chlorpyrifos	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Chlorpyrifos	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Chlorpyrifos	06/16/2015	E622	--	--	< 2.1	--	--
delta-BHC	01/20/2015	E608	--	--	--	--	< 0.057
delta-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
delta-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
delta-BHC	06/16/2015	E608	--	--	< 0.005	--	--
Demeton, Total	01/20/2015	E614	--	--	--	--	< 1
Demeton, Total	05/21/2015	E614	< 0.093	< 0.093	--	< 0.093	< 0.093
Demeton, Total	06/04/2015	E614	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
Demeton-O	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Demeton-O	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Demeton-O	06/16/2015	E622	--	--	< 2.1	--	--
Demeton-S	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Demeton-S	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Demeton-S	06/16/2015	E622	--	--	< 2.1	--	--
Diazinon	01/20/2015	E614	--	--	--	--	< 1
Diazinon	05/21/2015	E614	< 0.031	< 0.031	--	< 0.031	< 0.031
Diazinon	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Diazinon	06/04/2015	E614	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031
Diazinon	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Diazinon	06/16/2015	E622	--	--	< 2.1	--	--
Dieldrin	01/20/2015	E608	--	--	--	--	< 0.057
Dieldrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Dieldrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dieldrin	06/16/2015	E608	--	--	< 0.005	--	--
Endosulfan Sulfate	01/20/2015	E608	--	--	--	--	< 0.057
Endosulfan Sulfate	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endosulfan Sulfate	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endosulfan Sulfate	06/16/2015	E608	--	--	< 0.005	--	--
Endrin	01/20/2015	E608	--	--	--	--	< 0.057
Endrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endrin	06/16/2015	E608	--	--	< 0.005	--	--
Endrin Aldehyde	01/20/2015	E608	--	--	--	--	< 0.057
Endrin Aldehyde	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endrin Aldehyde	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endrin Aldehyde	06/16/2015	E608	--	--	< 0.005	--	--
gamma-BHC	01/20/2015	E608	--	--	--	--	< 0.057
gamma-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
gamma-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
gamma-BHC	06/16/2015	E608	--	--	< 0.005	--	--
Heptachlor	01/20/2015	E608	--	--	--	--	< 0.057
Heptachlor	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
Heptachlor	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor	06/16/2015	E608	--	--	< 0.005	--	--
Heptachlor Epoxide	01/20/2015	E608	--	--	--	--	< 0.057
Heptachlor Epoxide	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Heptachlor Epoxide	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor Epoxide	06/16/2015	E608	--	--	< 0.005	--	--
Malathion	01/20/2015	E614	--	--	--	--	< 1
Malathion	05/21/2015	E614	< 0.074	< 0.074	--	< 0.074	< 0.074
Malathion	06/04/2015	E614	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074
Malathion	06/16/2015	E614	--	--	< 0.074	--	--
Methoxychlor	01/20/2015	E608	--	--	--	--	< 0.057
Methoxychlor	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Methoxychlor	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methoxychlor	06/16/2015	E608	--	--	< 0.005	--	--
Parathion	01/20/2015	E614	--	--	--	--	< 1
Parathion	05/21/2015	E614	< 0.038	< 0.038	--	< 0.038	< 0.038
Parathion	06/04/2015	E614	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Parathion	06/16/2015	E614	--	--	< 0.038	--	--
Toxaphene	01/20/2015	E608	--	--	--	--	< 1.14
Toxaphene	05/21/2015	E608	< 0.222	< 0.202	--	< 0.235	< 0.208
Toxaphene	06/04/2015	E608	< 0.200	< 0.215	< 0.204	< 0.206	< 0.213
Toxaphene	06/16/2015	E608	--	--	< 0.206	--	--
Radium (pCi/L)							
Radium-226	01/20/2015	E903.1	--	--	--	--	< 0.901
Radium-226	03/31/2015	E903.1	**1.61**	**2.67**	--	--	--
Radium-226	04/15/2015	E903.1	**1.03**	**6.3**	< 0.253	--	--
Radium-226	05/21/2015	E903.1	**2.07**	**1.46**	--	**0.127**	**0.729**
Radium-226	06/04/2015	E903.1	--	--	**0.119**	**0.492**	**0.261**
Radium-226	06/16/2015	E903.1	--	--	**0.23**	--	--
Radium-228	01/20/2015	--	--	--	--	--	< 0.901
Radium-228	03/31/2015	SW9320	< 1.40	**2.88**	--	--	--
Radium-228	04/15/2015	SW9320	< 2.96	< 2.00	< 1.76	--	--
Radium-228	05/21/2015	E904.0	**1.47**	**1.32**	--	**0.475**	**0.283**
Radium-228	06/04/2015	E904.0	--	--	**-0.171**	**0.341**	**0.0745**
Radium-228	06/16/2015	E904.0	--	--	**0.371**	--	--
SVOCs (ug/L)							
1,2,4-Trichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,2,4-Trichlorobenzene	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
1,2,4-Trichlorobenzene	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
1,2,4-Trichlorobenzene	06/16/2015	E625	--	--	< 2.06	--	--
1,2-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,2-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,2-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,2-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
1,2-Diphenylhydrazine	01/20/2015	E625	--	--	--	--	< 10.9
1,2-Diphenylhydrazine	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
1,2-Diphenylhydrazine	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
1,2-Diphenylhydrazine	06/16/2015	E625	--	--	< 10.3	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
1,3-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,3-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,3-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,3-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
1,4-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,4-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,4-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,4-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
2,4,6-Trichlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4,6-Trichlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4,6-Trichlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4,6-Trichlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2,4-Dichlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dichlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4-Dichlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4-Dichlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2,4-Dimethylphenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dimethylphenol	05/21/2015	E625	< 0.51	< 0.51	--	< 0.51	< 0.53
2,4-Dimethylphenol	06/04/2015	E625	< 0.54	< 0.52	< 0.52	< 0.51	< 2.66
2,4-Dimethylphenol	06/16/2015	E625	--	--	< 0.52	--	--
2,4-Dinitrophenol	01/20/2015	E625	--	--	--	--	< 54.3
2,4-Dinitrophenol	05/21/2015	E625	< 0.51	< 0.51	--	< 0.51	< 0.53
2,4-Dinitrophenol	06/04/2015	E625	< 0.54	< 0.52	< 0.52	< 0.51	< 2.66
2,4-Dinitrophenol	06/16/2015	E625	--	--	< 0.52	--	--
2,4-Dinitrotoluene	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dinitrotoluene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4-Dinitrotoluene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4-Dinitrotoluene	06/16/2015	E625	--	--	< 1.03	--	--
2,6-Dinitrotoluene	01/20/2015	E625	--	--	--	--	< 10.9
2,6-Dinitrotoluene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,6-Dinitrotoluene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,6-Dinitrotoluene	06/16/2015	E625	--	--	< 1.03	--	--
2-Chloronaphthalene	01/20/2015	E625	--	--	--	--	< 10.9
2-Chloronaphthalene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Chloronaphthalene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Chloronaphthalene	06/16/2015	E625	--	--	< 1.03	--	--
2-Chlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2-Chlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Chlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Chlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2-Nitrophenol	01/20/2015	E625	--	--	--	--	< 10.9
2-Nitrophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Nitrophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Nitrophenol	06/16/2015	E625	--	--	< 1.03	--	--
3,3'-Dichlorobenzidine	01/20/2015	E625	--	--	--	--	< 10.9
3,3'-Dichlorobenzidine	05/21/2015	E625	< 4.04	< 4.08	--	< 4.08	< 4.26
3,3'-Dichlorobenzidine	06/04/2015	E625	< 4.35	< 4.12	< 4.17	< 4.04	< 21.3
3,3'-Dichlorobenzidine	06/16/2015	E625	--	--	< 4.12	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
4,6-Dinitro-2-methylphenol	01/20/2015	E625	--	--	--	--	< 54.3
4,6-Dinitro-2-methylphenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4,6-Dinitro-2-methylphenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4,6-Dinitro-2-methylphenol	06/16/2015	E625	--	--	< 1.03	--	--
4-Bromophenyl Phenyl Ether	01/20/2015	E625	--	--	--	--	< 10.9
4-Bromophenyl Phenyl Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Bromophenyl Phenyl Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Bromophenyl Phenyl Ether	06/16/2015	E625	--	--	< 1.03	--	--
4-Chlorophenyl-phenylether	01/20/2015	E625	--	--	--	--	< 10.9
4-Chlorophenyl-phenylether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Chlorophenyl-phenylether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Chlorophenyl-phenylether	06/16/2015	E625	--	--	< 1.03	--	--
4-Nitrophenol	01/20/2015	E625	--	--	--	--	< 54.3
4-Nitrophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Nitrophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Nitrophenol	06/16/2015	E625	--	--	< 1.03	--	--
Acenaphthene	01/20/2015	E625	--	--	--	--	< 10.9
Acenaphthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Acenaphthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Acenaphthene	06/16/2015	E625	--	--	< 1.03	--	--
Acenaphthylene	01/20/2015	E625	--	--	--	--	< 10.9
Acenaphthylene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Acenaphthylene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Acenaphthylene	06/16/2015	E625	--	--	< 1.03	--	--
Anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Anthracene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Anthracene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Anthracene	06/16/2015	E625	--	--	< 1.03	--	--
Benzidine	01/20/2015	E625	--	--	--	--	< 54.3
Benzidine	05/21/2015	E625	< 50.5	< 51.0	--	< 51.0	< 53.2
Benzidine	06/04/2015	E625	< 54.3	< 51.5	< 52.1	< 50.5	< 266
Benzidine	06/16/2015	E625	--	--	< 51.5	--	--
Benzo[a]anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[a]anthracene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Benzo[a]anthracene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Benzo[a]anthracene	06/16/2015	E625	--	--	< 10.3	--	--
Benzo[a]pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[a]pyrene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[a]pyrene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[a]pyrene	06/16/2015	E625	--	--	< 1.03	--	--
Benzo[b]fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[b]fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[b]fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[b]fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Benzo[g,h,i]perylene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[g,h,i]perylene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[g,h,i]perylene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[g,h,i]perylene	06/16/2015	E625	--	--	< 1.03	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Benzo[k]fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[k]fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[k]fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[k]fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloro-1-methylethyl) Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloro-1-methylethyl) Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloro-1-methylethyl) Ether	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloroethoxy)methane	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-chloroethoxy)methane	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloroethoxy)methane	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloroethoxy)methane	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloroethyl) Ether	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-chloroethyl) Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloroethyl) Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloroethyl) Ether	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-ethylhexyl) Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-ethylhexyl) Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-ethylhexyl) Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-ethylhexyl) Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Butylbenzyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Butylbenzyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Butylbenzyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Butylbenzyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Chrysene	01/20/2015	E625	--	--	--	--	< 10.9
Chrysene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Chrysene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Chrysene	06/16/2015	E625	--	--	< 1.03	--	--
Dibenz[a,h]anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Dibenz[a,h]anthracene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Dibenz[a,h]anthracene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Dibenz[a,h]anthracene	06/16/2015	E625	--	--	< 1.03	--	--
Diethyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Diethyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Diethyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Diethyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Dimethyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Dimethyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Dimethyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Dimethyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Di-n-Butyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Di-n-Butyl Phthalate	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
Di-n-Butyl Phthalate	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
Di-n-Butyl Phthalate	06/16/2015	E625	--	--	< 2.06	--	--
Di-n-octyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Di-n-octyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Di-n-octyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Di-n-octyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Fluorene	01/20/2015	E625	--	--	--	--	< 10.9
Fluorene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Fluorene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Fluorene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachlorobenzene	01/20/2015	E625	--	--	--	--	< 2.72
Hexachlorobenzene	05/21/2015	E625	< 2.53	< 2.55	--	< 2.55	< 2.66
Hexachlorobenzene	06/04/2015	E625	< 2.72	< 2.58	< 2.60	< 2.53	< 13.3
Hexachlorobenzene	06/16/2015	E625	--	--	< 2.58	--	--
Hexachlorobutadiene	01/20/2015	E625	--	--	--	--	< 10.9
Hexachlorobutadiene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachlorobutadiene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachlorobutadiene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachlorocyclopentadiene	01/20/2015	E625	--	--	--	--	< 10.9
Hexachlorocyclopentadiene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachlorocyclopentadiene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachlorocyclopentadiene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachloroethane	01/20/2015	E625	--	--	--	--	< 10.9
Hexachloroethane	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachloroethane	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachloroethane	06/16/2015	E625	--	--	< 1.03	--	--
Indeno[1,2,3-cd]pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Indeno[1,2,3-cd]pyrene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Indeno[1,2,3-cd]pyrene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Indeno[1,2,3-cd]pyrene	06/16/2015	E625	--	--	< 1.03	--	--
Isophorone	01/20/2015	E625	--	--	--	--	< 10.9
Isophorone	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Isophorone	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Isophorone	06/16/2015	E625	--	--	< 1.03	--	--
Kepone	01/20/2015	SW8270D	--	--	--	--	< 10.9
Kepone	05/21/2015	SW8270D	< 2.02	< 2.04	--	< 2.04	< 2.13
Kepone	06/04/2015	SW8270D	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
Kepone	06/16/2015	SW8270D	--	--	< 2.06	--	--
Naphthalene	01/20/2015	E625	--	--	--	--	< 10.9
Naphthalene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Naphthalene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Naphthalene	06/16/2015	E625	--	--	< 10.3	--	--
Nitrobenzene	01/20/2015	E625	--	--	--	--	< 10.9
Nitrobenzene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Nitrobenzene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Nitrobenzene	06/16/2015	E625	--	--	< 10.3	--	--
N-Nitrosodimethylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitrosodimethylamine	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
N-Nitrosodimethylamine	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
N-Nitrosodimethylamine	06/16/2015	E625	--	--	< 2.06	--	--
N-Nitroso-di-n-propylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitroso-di-n-propylamine	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
N-Nitroso-di-n-propylamine	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
N-Nitroso-di-n-propylamine	06/16/2015	E625	--	--	< 2.06	--	--
N-Nitrosodiphenylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitrosodiphenylamine	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
N-Nitrosodiphenylamine	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
N-Nitrosodiphenylamine	06/16/2015	E625	--	--	< 10.3	--	--
Nonylphenol	01/20/2015	D7065	--	--	--	--	< 5
Nonylphenol	05/21/2015	D7065	< 0.8182	< 0.8182	--	< 0.8182	< 0.8182
Nonylphenol	06/04/2015	D7065	< 0.8182	< 0.8182	< 0.8182	< 0.8182	< 0.8182
Nonylphenol	06/16/2015	D7065	--	--	< 0.8182	--	--
p-Chloro-m-cresol	01/20/2015	E625	--	--	--	--	< 10.9
p-Chloro-m-cresol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
p-Chloro-m-cresol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
p-Chloro-m-cresol	06/16/2015	E625	--	--	< 10.3	--	--
Pentachlorophenol	01/20/2015	E625	--	--	--	--	< 21.7
Pentachlorophenol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Pentachlorophenol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Pentachlorophenol	06/16/2015	E625	--	--	< 10.3	--	--
Phenanthrene	01/20/2015	E625	--	--	--	--	< 10.9
Phenanthrene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Phenanthrene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Phenanthrene	06/16/2015	E625	--	--	< 10.3	--	--
Phenol	01/20/2015	E420.4	--	--	--	--	< 10.9
Phenol	01/20/2015	E625	--	--	--	--	< 10.9
Phenol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Phenol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Phenol	06/16/2015	E625	--	--	< 10.3	--	--
Pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Pyrene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Pyrene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Pyrene	06/16/2015	E625	--	--	< 10.3	--	--
Total Metals (ug/L)							
Aluminum	01/20/2015	SM3111D	--	--	--	--	< 130
Aluminum	03/31/2015	SW6010C	**22200**	**249000**	--	--	--
Aluminum	04/15/2015	SW6010C	**9220**	**65100**	**244**	--	--
Aluminum	05/21/2015	E200.7	**76300**	**120000**	--	**76.1**	**181**
Aluminum	06/04/2015	E200.7	**24700**	**123000**	< 20.0	**334**	**261**
Aluminum	06/16/2015	E200.7	--	--	< 20.0	--	--
Antimony	01/20/2015	SM3113B	--	--	--	--	< 1
Antimony	03/31/2015	SW6020A	**11.7**	**13.4**	--	--	--
Antimony	04/15/2015	SW6020A	**13.5**	**8.79**	**0.715**	**0.355**	**0.909**
Antimony	05/21/2015	E200.8	**4.77**	**9.50**	--	**0.157**	**0.559**
Antimony	06/04/2015	E200.8	**4.73**	**7.97**	< 0.110	**0.247**	**0.213**
Antimony	06/16/2015	E200.8	--	--	< 0.110	--	--
Arsenic	01/20/2015	SM3113B	--	--	--	--	< 2

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Arsenic	03/31/2015	SW6010C	173	813	--	--	--
Arsenic	04/15/2015	SW6010C	265	425	< 6.80	--	--
Arsenic	05/21/2015	E200.8	1020	838	--	3.59	7.43
Arsenic	05/21/2015	E200.9	--	544	--	--	--
Arsenic	06/04/2015	E200.8	485	1460	< 0.610	8.57	3.89
Arsenic	06/04/2015	E200.9	--	511	--	--	--
Arsenic	06/16/2015	E200.8	--	--	< 0.610	--	--
Barium	01/20/2015	SM3113B	--	--	--	--	43
Barium	03/31/2015	SW6010C	758	9370	--	--	--
Barium	04/15/2015	SW6010C	844	2620	114	--	--
Barium	05/21/2015	E200.7	2510	3680	--	58.9	125
Barium	06/04/2015	E200.7	1260	3540	14.5	59.9	108
Barium	06/16/2015	E200.7	--	--	13.4	--	--
Beryllium	01/20/2015	SM3113B	--	--	--	--	< 0.2
Beryllium	03/31/2015	SW6010C	5.54	87.7	--	--	--
Beryllium	04/15/2015	SW6010C	3.14	31.9	< 0.100	--	--
Beryllium	05/21/2015	E200.7	22.6	57.0	--	< 2.0	< 2.0
Beryllium	06/04/2015	E200.7	6.8	64.9	< 2.0	< 2.0	< 2.0
Beryllium	06/16/2015	E200.7	--	--	< 2.0	--	--
Boron	03/31/2015	SW6010C	1320	2190	--	--	--
Boron	04/15/2015	SW6010C	2790	2190	396	230	413
Boron	05/21/2015	E200.7	1630	1750	--	217	410
Boron	06/04/2015	E200.7	1740	1890	774	238	245
Boron	06/16/2015	E200.7	--	--	777	--	--
Cadmium	01/20/2015	SM3113B	--	--	--	--	< 0.3
Cadmium	03/31/2015	SW6010C	< 0.360	1.36	--	--	--
Cadmium	04/15/2015	SW6010C	< 0.360	1.33	< 0.360	< 0.360	< 0.360
Cadmium	05/21/2015	E200.8	2.26	9.41	--	< 0.110	< 0.110
Cadmium	06/04/2015	E200.8	0.636	11.5	< 0.110	< 0.110	< 0.110
Cadmium	06/16/2015	E200.8	--	--	< 0.110	--	--
Calcium	03/31/2015	SW6010C	53700	174000	--	--	--
Calcium	04/15/2015	SW6010C	129000	179000	32000	125000	35700
Calcium	05/21/2015	E200.7	137000	189000	--	119000	33400
Calcium	06/04/2015	E200.7	128000	228000	20900	124000	28800
Calcium	06/16/2015	E200.7	--	--	20400	--	--
Chromium	01/20/2015	SM3113B	--	--	--	--	< 1
Chromium	03/31/2015	SW6010C	32.3	366	--	--	--
Chromium	04/15/2015	SW6010C	20.5	150	< 1.40	< 1.40	< 1.40
Chromium	05/21/2015	E200.8	112	342	--	0.498	< 0.450
Chromium	06/04/2015	E200.8	23.6	557	< 0.450	3.08	< 0.450
Chromium	06/16/2015	E200.8	--	--	< 0.450	--	--
Chromium (III)	05/21/2015	CALC	112	342	--	< 5	< 5
Chromium (III)	06/04/2015	CALC	24	557	< 5	< 5	< 5
Chromium (III)	06/16/2015	CALC	--	--	< 5	--	--
Cobalt	01/20/2015	SM3113B	--	--	--	--	< 0.6
Cobalt	03/31/2015	SW6010C	25.5	265	--	--	--
Cobalt	04/15/2015	SW6010C	13.6	79.7	< 1.10	--	--
Cobalt	05/21/2015	E200.7	77.6	167	--	< 2.0	< 2.0
Cobalt	06/04/2015	E200.7	29.4	174	< 2.0	5.5	< 2.0
Cobalt	06/16/2015	E200.7	--	--	< 2.0	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Copper	01/20/2015	SM3113B	--	--	--	--	11
Copper	03/31/2015	SW6010C	86.6	1050	--	--	--
Copper	04/15/2015	SW6010C	57.7	404	2.81	4.04	4.26
Copper	05/21/2015	E200.8	363	1110	--	1.63	2.32
Copper	05/21/2015	E200.9	--	806	--	--	--
Copper	06/04/2015	E200.8	70.3	1780	< 0.220	6.05	2.87
Copper	06/04/2015	E200.9	--	853	--	--	--
Copper	06/16/2015	E200.8	--	--	0.681	--	--
Hexavalent Chromium	04/15/2015	SM3500-CR-B	< 8.8	16	17	< 8.8	12
Hexavalent Chromium	05/21/2015	SM3500-CR-B	< 50	< 25	--	< 5	< 5
Hexavalent Chromium	06/04/2015	SM3500-CR-B	< 25	< 100	< 5	< 5	< 5
Hexavalent Chromium	06/16/2015	SM3500-CR-B	--	--	< 5	--	--
Iron	01/20/2015	SM3111B	--	--	--	--	240
Iron	03/31/2015	SW6010C	10700	103000	--	--	--
Iron	04/15/2015	SW6010C	4070	22600	1030	142	379
Iron	05/21/2015	E200.7	27800	29800	--	548	244
Iron	06/04/2015	E200.7	8930	30600	12.7	1410	481
Iron	06/16/2015	E200.7	--	--	3.6	--	--
Lead	01/20/2015	SM3113B	--	--	--	--	< 1
Lead	03/31/2015	SW6010C	28.8	336	--	--	--
Lead	04/15/2015	SW6010C	15.9	77.2	< 3.10	< 3.10	< 3.10
Lead	05/21/2015	E200.8	152	244	--	< 0.160	< 0.160
Lead	06/04/2015	E200.8	35.6	579	< 0.160	1.47	0.254
Lead	06/16/2015	E200.8	--	--	< 0.160	--	--
Lithium	03/31/2015	SW6010C	259	579	--	--	--
Lithium	04/15/2015	SW6010C	507	372	5.39	--	--
Lithium	05/21/2015	SW6010C	--	--	--	320	320
Lithium	06/04/2015	SW6010C	44	320	< 1.2	330	< 1.2
Lithium	06/16/2015	SW6010C	--	--	< 1.2	--	--
Magnesium	01/20/2015	SM3111B	--	--	--	--	4570
Magnesium	03/31/2015	SW6010C	15200	41200	--	--	--
Magnesium	04/15/2015	SW6010C	31400	30300	13300	4380	11200
Magnesium	05/21/2015	E200.7	32500	38200	--	4140	10700
Magnesium	06/04/2015	E200.7	28600	47000	6770	4880	8340
Magnesium	06/16/2015	E200.7	--	--	6650	--	--
Manganese	01/20/2015	SM3111B	--	--	--	--	30
Manganese	03/31/2015	SW6010C	463	1170	--	--	--
Manganese	04/15/2015	SW6010C	858	994	241	27.8	100
Manganese	05/21/2015	E200.7	1280	1850	--	79.2	103
Manganese	06/04/2015	E200.7	1110	1850	< 2.0	542	175
Manganese	06/16/2015	E200.7	--	--	< 2.0	--	--
Mercury	01/20/2015	SM3112B	--	--	--	--	< 0.02
Mercury	03/31/2015	SW7470A	< 0.170	0.862	--	--	--
Mercury	04/15/2015	SW7470A	< 0.170	0.361	< 0.170	< 0.170	< 0.170
Mercury	05/21/2015	E245.1	0.189	1.86	--	< 0.023	< 0.023
Mercury	06/04/2015	E245.1	< 0.023	5.39	0.147	< 0.023	< 0.023
Mercury	06/16/2015	E245.1	--	--	< 0.023	--	--
Molybdenum	01/20/2015	SM3113B	--	--	--	--	7
Molybdenum	03/31/2015	SW6010C	226	64.9	--	--	--
Molybdenum	04/15/2015	SW6010C	305	32.6	< 2.50	--	--
Molybdenum	05/21/2015	E200.7	52.6	< 50.0	--	< 50.0	< 50.0

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Molybdenum	06/04/2015	E200.7	**92.5**	< 50.0	< 50.0	< 50.0	< 50.0
Molybdenum	06/16/2015	E200.7	--	--	< 50.0	--	--
Nickel	01/20/2015	SM3113B	--	--	--	--	< 5
Nickel	03/31/2015	SW6010C	**40.5**	**430**	--	--	--
Nickel	04/15/2015	SW6010C	**30.3**	**135**	**7.55**	**15.1**	**8.40**
Nickel	05/21/2015	E200.8	**126**	**332**	--	**11.4**	**1.81**
Nickel	06/04/2015	E200.8	**31.0**	**625**	**0.403**	**20.3**	**1.72**
Nickel	06/16/2015	E200.8	--	--	**0.527**	--	--
Potassium	03/31/2015	SW6010C	**12600**	**44500**	--	--	--
Potassium	04/15/2015	SW6010C	**13900**	**20600**	**1860**	--	--
Potassium	05/21/2015	E200.7	**23400**	**27700**	--	**30200**	**3470**
Potassium	06/04/2015	E200.7	**14800**	**25400**	**1070**	**28300**	**3340**
Potassium	06/16/2015	E200.7	--	--	**990**	--	--
Selenium	01/20/2015	SM3113B	--	--	--	--	< 2
Selenium	03/31/2015	SW6010C	< 5.00	**90.0**	--	--	--
Selenium	04/15/2015	SW6010C	< 5.00	**15.1**	< 5.00	< 5.00	< 5.00
Selenium	05/21/2015	E200.8	< 13.0	**35.3**	--	**5.48**	< 0.650
Selenium	06/04/2015	E200.8	< 3.25	**144**	< 0.650	**10.6**	< 0.650
Selenium	06/16/2015	E200.8	--	--	< 0.650	--	--
Silver	01/20/2015	SM3113B	--	--	--	--	< 0.1
Silver	03/31/2015	SW6020A	< 0.500	< 1.00	--	--	--
Silver	04/15/2015	SW6010C	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90
Silver	05/21/2015	E200.8	< 0.580	< 0.870	--	< 0.029	< 0.029
Silver	06/04/2015	E200.8	< 0.145	< 0.870	< 0.029	< 0.029	< 0.029
Silver	06/16/2015	E200.8	--	--	< 0.029	--	--
Sodium	03/31/2015	SW6010C	**76000**	**16200**	--	--	--
Sodium	04/15/2015	SW6010C	**36900**	**10500**	**20000**	--	--
Sodium	05/21/2015	E200.7	**17700**	**11800**	--	**9810**	**19600**
Sodium	06/04/2015	E200.7	**15400**	**11500**	**22000**	**9890**	**14800**
Sodium	06/16/2015	E200.7	--	--	**21300**	--	--
Thallium	01/20/2015	E279.2	--	--	--	--	< 0.3
Thallium	03/31/2015	SW6020A	**1.91**	**11.4**	--	--	--
Thallium	04/15/2015	SW6020A	**0.818**	**9.12**	< 0.110	**0.141**	**0.134**
Thallium	05/21/2015	E200.8	**7.96**	**26.4**	--	< 0.058	< 0.058
Thallium	06/04/2015	E200.8	**1.78**	**46.4**	< 0.058	**0.096**	< 0.058
Thallium	06/16/2015	E200.8	--	--	< 0.058	--	--
Vanadium	03/31/2015	SW6010C	**176**	**1420**	--	--	--
Vanadium	04/15/2015	SW6010C	**159**	**796**	< 1.40	--	--
Vanadium	05/21/2015	E200.7	**407**	**718**	--	< 2.0	**2.8**
Vanadium	06/04/2015	E200.7	**131**	**1080**	< 2.0	< 2.0	< 2.0
Vanadium	06/16/2015	E200.7	--	--	< 2.0	--	--
Zinc	01/20/2015	SM3111B	--	--	--	--	**13**
Zinc	03/31/2015	SW6010C	**58.1**	**447**	--	--	--
Zinc	04/15/2015	SW6010C	**35.5**	**167**	< 3.80	< 3.80	**4.31**
Zinc	05/21/2015	E200.8	**228**	**491**	--	**16.9**	**14.0**
Zinc	06/04/2015	E200.8	**47.2**	**943**	< 1.60	**9.35**	**6.28**
Zinc	06/16/2015	E200.8	--	--	**5.50**	--	--
VOCs (ug/L)							
1,1,1-Trichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,1-Trichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
1,1,1-Trichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1,2,2-Tetrachloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,2,2-Tetrachloroethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,1,2,2-Tetrachloroethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,1,2,2-Tetrachloroethane	06/16/2015	E624	--	--	< 1.50	--	--
1,1,2-Trichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,2-Trichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1,2-Trichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1-Dichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1-Dichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1-Dichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1-Dichloroethene	01/20/2015	E624	--	--	--	--	< 1
1,1-Dichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1-Dichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
1,2-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,2-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
1,2-Dichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,2-Dichloroethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,2-Dichloroethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,2-Dichloroethane	06/16/2015	E624	--	--	< 1.50	--	--
1,2-Dichloropropane	01/20/2015	E624	--	--	--	--	< 1
1,2-Dichloropropane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,2-Dichloropropane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,2-Dichloropropane	06/16/2015	E624	--	--	< 1.50	--	--
1,3-Dichlorobenzene	01/20/2015	E624	--	--	--	--	< 10
1,3-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,3-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
1,3-Dichloropropene, Total	01/20/2015	E624	--	--	--	--	< 10
1,3-Dichloropropene, Total	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,3-Dichloropropene, Total	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3-Dichloropropene, Total	06/16/2015	E624	--	--	< 1.00	--	--
1,4-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,4-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,4-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
2-Chloroethyl Vinyl Ether	01/20/2015	E624	--	--	--	--	< 10
2-Chloroethyl Vinyl Ether	05/21/2015	E624	< 5.00	< 5.00	--	< 5.00	< 5.00
2-Chloroethyl Vinyl Ether	06/04/2015	E624	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
2-Chloroethyl Vinyl Ether	06/16/2015	E624	--	--	< 5.00	--	--
Acrolein	01/20/2015	E624	--	--	--	--	< 10
Acrolein	05/21/2015	E624	< 25.5	< 25.5	--	< 25.5	< 25.5
Acrolein	06/04/2015	E624	< 25.5	< 25.5	< 25.5	< 25.5	< 25.5

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Acrolein	06/16/2015	E624	--	--	< 25.5	--	--
Acrylonitrile	01/20/2015	E624	--	--	--	--	**8.95**
Acrylonitrile	05/21/2015	E624	< 8.50	< 8.50	--	< 8.50	< 8.50
Acrylonitrile	06/04/2015	E624	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
Acrylonitrile	06/16/2015	E624	--	--	< 8.50	--	--
Benzene	01/20/2015	E624	--	--	--	--	< 1
Benzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Benzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzene	06/16/2015	E624	--	--	< 1.00	--	--
Bromodichloromethane	01/20/2015	E624	--	--	--	--	< 1
Bromodichloromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Bromodichloromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromodichloromethane	06/16/2015	E624	--	--	< 1.00	--	--
Bromoform	01/20/2015	E624	--	--	--	--	< 1
Bromoform	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Bromoform	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Bromoform	06/16/2015	E624	--	--	< 1.50	--	--
Bromomethane	01/20/2015	E624	--	--	--	--	< 1
Bromomethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Bromomethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromomethane	06/16/2015	E624	--	--	< 1.00	--	--
Carbon Tetrachloride	01/20/2015	E624	--	--	--	--	< 1000
Carbon Tetrachloride	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Carbon Tetrachloride	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	06/16/2015	E624	--	--	< 1.00	--	--
Chlorobenzene	01/20/2015	E624	--	--	--	--	< 1
Chlorobenzene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
Chlorobenzene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	06/16/2015	E624	--	--	< 0.50	--	--
Chloroethane	01/20/2015	E624	--	--	--	--	< 1
Chloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Chloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	06/16/2015	E624	--	--	< 1.00	--	--
Chloroform	01/20/2015	E624	--	--	--	--	< 1
Chloroform	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Chloroform	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroform	06/16/2015	E624	--	--	< 1.00	--	--
Chloromethane	01/20/2015	E624	--	--	--	--	< 1
Chloromethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Chloromethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Chloromethane	06/16/2015	E624	--	--	< 1.50	--	--
cis-1,3-Dichloropropene	01/20/2015	E624	--	--	--	--	< 1
cis-1,3-Dichloropropene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
cis-1,3-Dichloropropene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
cis-1,3-Dichloropropene	06/16/2015	E624	--	--	< 1.00	--	--
Dibromochloromethane	01/20/2015	E624	--	--	--	--	< 1
Dibromochloromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Dibromochloromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromochloromethane	06/16/2015	E624	--	--	< 1.00	--	--
Ethylbenzene	01/20/2015	E624	--	--	--	--	< 1
Ethylbenzene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
Ethylbenzene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	06/16/2015	E624	--	--	< 0.50	--	--
m,p-Xylenes	01/20/2015	E624	--	--	--	--	< 2
m,p-Xylenes	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
m,p-Xylenes	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
m,p-Xylenes	06/16/2015	E624	--	--	< 1.00	--	--
Methylene Chloride	01/20/2015	E624	--	--	--	--	< 4
Methylene Chloride	05/21/2015	E624	< 5.00	< 5.00	--	< 5.00	< 5.00
Methylene Chloride	06/04/2015	E624	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Methylene Chloride	06/16/2015	E624	--	--	< 5.00	--	--
o-Xylene	01/20/2015	E624	--	--	--	--	< 1
o-Xylene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
o-Xylene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
o-Xylene	06/16/2015	E624	--	--	< 0.50	--	--
Tetrachloroethene	01/20/2015	E624	--	--	--	--	< 1
Tetrachloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Tetrachloroethene	06/04/2015	E624	**1.56**	**1.68**	< 1.00	**1.16**	< 1.00
Tetrachloroethene	06/16/2015	E624	--	--	< 1.00	--	--
Toluene	01/20/2015	E624	--	--	--	--	< 1
Toluene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Toluene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	06/16/2015	E624	--	--	< 1.00	--	--
trans-1,2-Dichloroethene	01/20/2015	E624	--	--	--	--	< 1
trans-1,2-Dichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
trans-1,2-Dichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
trans-1,3-Dichloropropene	01/20/2015	E624	--	--	--	--	< 1
trans-1,3-Dichloropropene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
trans-1,3-Dichloropropene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,3-Dichloropropene	06/16/2015	E624	--	--	< 1.00	--	--
Trichloroethene	01/20/2015	E624	--	--	--	--	< 1
Trichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Trichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
Trichlorofluoromethane	01/20/2015	E624	--	--	--	--	< 1
Trichlorofluoromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Trichlorofluoromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichlorofluoromethane	06/16/2015	E624	--	--	< 1.00	--	--
Vinyl Chloride	01/20/2015	E624	--	--	--	--	< 1
Vinyl Chloride	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Vinyl Chloride	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride	06/16/2015	E624	--	--	< 1.00	--	--
Xylenes, Total	01/20/2015	E624	--	--	--	--	< 3

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Xylenes, Total	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Xylenes, Total	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Xylenes, Total	06/16/2015	E624	--	--	< 1.50	--	--
WQ/Other (ug/L)							
Alkalinity, Total	03/31/2015	E310.2	**280000**	**380000**	--	--	--
Alkalinity, Total	04/15/2015	E310.2	**430000**	**420000**	**110000**	--	--
Alkalinity, Total	05/21/2015	SM2320B	**421000**	**397000**	--	**136000**	**113000**
Alkalinity, Total	06/04/2015	SM2320B	--	--	**72000**	**136000**	**92000**
Alkalinity, Total	06/16/2015	SM2320B	--	--	**74000**	--	--
Ammonia	03/31/2015	E350.1	**220**	**280**	--	--	--
Ammonia	04/15/2015	E350.1	**330**	**310**	< 45	< 45	< 45
Ammonia Nitrogen	01/20/2015	SM4500-NH3-D	--	--	--	--	**60**
Ammonia Nitrogen	05/21/2015	E350.1	**460**	**210**	--	**90**	**80**
Ammonia Nitrogen	06/04/2015	E350.1	--	--	< 50	--	--
Ammonia Nitrogen	06/16/2015	E350.1	--	--	< 50	--	--
Biochemical Oxygen Demand	01/20/2015	SM5210B	--	--	--	--	< 2000
Biochemical Oxygen Demand	03/31/2015	SM5210B	< 2000	**2000**	--	--	--
Biochemical Oxygen Demand	04/15/2015	SM5210B	< 2000	< 2000	< 2000	--	--
Biochemical Oxygen Demand	05/21/2015	SM5210B	< 200	< 200	--	< 200	< 200
Biochemical Oxygen Demand	06/04/2015	SM5210B	--	--	< 200	< 200	< 200
Biochemical Oxygen Demand	06/16/2015	SM5210B	--	--	**700**	--	--
Bromide	01/20/2015	E300	--	--	--	--	< 1000
Bromide	04/15/2015	E300	**790**	**110**	**230**	**71**	**180**
Bromide	05/21/2015	E300.0A	< 1000	< 1000	--	**3050**	< 1000
Bromide	06/16/2015	E300.0A	--	--	< 5000	--	--
Chemical Oxygen Demand	01/20/2015	H8000	--	--	--	--	< 5000
Chemical Oxygen Demand	05/21/2015	SM5220D	**1170000**	**3920000**	--	**14600**	< 10000
Chemical Oxygen Demand	06/04/2015	SM5220D	**115000**	**1090000**	< 10000	**22100**	**16300**
Chemical Oxygen Demand	06/16/2015	SM5220D	--	--	< 10000	--	--
Chloride	01/20/2015	E300	--	--	--	--	**14700**
Chloride	03/31/2015	E300	**15000**	**5500**	--	--	--
Chloride	04/15/2015	E300	**17000**	**4100**	**9700**	**3800**	**15000**
Chloride	05/21/2015	E300.0A	**12300**	**2900**	--	< 1000	**14000**
Chloride	06/04/2015	E300.0A	--	--	**11800**	--	--
Chloride	06/16/2015	E300.0A	--	--	**11600**	--	--
Cyanide	01/20/2015	SM4500-CN-E	--	--	--	--	< 10
Cyanide	05/21/2015	SM4500-CN-E	< 10	< 10	--	**12**	< 10
Cyanide	06/04/2015	SM4500-CN-E	< 10	< 10	< 10	< 10	< 10
Cyanide	06/16/2015	SM4500-CN-E	--	--	< 10	--	--
Fluoride	01/20/2015	E300	--	--	--	--	**44**
Fluoride	03/31/2015	E300	**420**	**130**	--	--	--
Fluoride	04/15/2015	E300	**410**	**120**	**100**	--	--
Fluoride	05/21/2015	E300.0A	**600**	< 100	--	**500**	< 100
Fluoride	06/04/2015	E300.0A	--	--	< 100	**500**	< 100
Fluoride	06/16/2015	E300.0A	--	--	< 500	--	--
Hardness	04/15/2015	SM2340B	**450000**	**570000**	**130000**	--	--
Hardness	05/21/2015	SM2340B	**476000**	**628000**	--	**313000**	**128000**
Hardness	06/04/2015	SM2340B	**438000**	**764000**	**80000**	**330000**	**106000**
Hardness	06/16/2015	SM2340B	--	--	**78300**	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Nitrate	05/21/2015	CALC	< 150	< 150	--	< 150	< 150
Nitrate	06/04/2015	CALC	--	--	< 150	--	--
Nitrate	06/16/2015	CALC	--	--	< 150	--	--
Nitrite	05/21/2015	SM4500-NO2	< 50	< 50	--	< 50	< 50
Nitrite	06/04/2015	SM4500-NO2	--	--	< 50	--	--
Nitrite	06/16/2015	SM4500-NO2	--	--	< 50	--	--
Nitrogen, Nitrate-Nitrite	01/20/2015	E353.2	--	--	--	--	**170**
Nitrogen, Nitrate-Nitrite	03/31/2015	E353.2	< 41	< 41	--	--	--
Nitrogen, Nitrate-Nitrite	04/15/2015	E353.2	< 41	**83**	< 41	< 41	< 41
Nitrogen, Nitrate-Nitrite	05/21/2015	SM4500-NO3-F	**40**	**40**	--	**40**	**40**
Nitrogen, Nitrate-Nitrite	06/04/2015	SM4500-NO3-F	--	--	**120**	--	--
Nitrogen, Nitrate-Nitrite	06/16/2015	SM4500-NO3-F	--	--	**40**	--	--
Nitrogen, Total Kjeldahl	01/20/2015	E351.2	--	--	--	--	< 300
Nitrogen, Total Kjeldahl	04/15/2015	E351.2	**770**	**11000**	**320**	**400**	**340**
Nitrogen, Total Kjeldahl	05/21/2015	E351.2	**1480**	**1630**	--	**560**	< 200
Nitrogen, Total Kjeldahl	06/04/2015	E351.2	--	--	< 200	--	--
Nitrogen, Total Kjeldahl	06/16/2015	E351.2	--	--	< 200	--	--
Oil & Grease, Total Rec	01/20/2015	E1664B	--	--	--	--	< 5000
Oil & Grease, Total Rec	03/31/2015	E1664B	< 2400	< 2400	--	--	--
Oil & Grease, Total Rec	04/15/2015	E1664B	< 2400	< 2400	< 2400	< 2400	< 2400
Oil & Grease, Total Rec	05/21/2015	E1664A	< 5000	< 5000	--	< 5000	< 5000
Oil & Grease, Total Rec	06/04/2015	E1664A	--	--	< 5200	--	--
Oil & Grease, Total Rec	06/16/2015	E1664A	--	--	< 5000	--	--
Phosphorus	01/20/2015	SM4500-P-E	--	--	--	--	**60**
Phosphorus	04/15/2015	E365.4	**510**	**4400**	< 25	< 25	**30**
Phosphorus	05/21/2015	SM4500-P-E	**2930**	**12900**	--	**20**	**10**
Phosphorus	06/04/2015	SM4500-P-E	--	--	< 10	--	--
Phosphorus	06/16/2015	SM4500-P-E	--	--	**20**	--	--
Sulfate	01/20/2015	E300	--	--	--	--	**23210**
Sulfate	03/31/2015	E300	**74000**	**53000**	--	--	--
Sulfate	04/15/2015	E300	**40000**	**43000**	**39000**	**220000**	**42000**
Sulfate	05/21/2015	E300.0A	**7100**	**40300**	--	**255000**	**44600**
Sulfate	06/04/2015	E300.0A	--	--	**33600**	--	--
Sulfate	06/16/2015	E300.0A	--	--	**2610000**	--	--
Sulfide	01/20/2015	SM4500-S2-F	--	--	--	--	< 1000
Sulfide	05/21/2015	H8131	< 6	< 6	--	< 6	< 6
Sulfide	06/16/2015	H8131	--	--	< 6	--	--
Total Dissolved Solids	01/20/2015	SM2540C	--	--	--	--	**134000** **49500**
Total Dissolved Solids	03/31/2015	SM2540C	**390000**	**450000**	--	--	--
Total Dissolved Solids	04/15/2015	SM2540C	**500000**	**500000**	**200000**	**450000**	**180000**
Total Dissolved Solids	05/21/2015	SM2540C	**480000**	**487000**	--	**493000**	**225000**
Total Dissolved Solids	06/16/2015	SM2540C	--	--	**183000**	--	--
Total Organic Carbon	01/20/2015	SM5310B	--	--	--	--	**5200**
Total Organic Carbon	05/21/2015	SM5310C	< 1000	< 1000	--	**6200**	**3300**
Total Organic Carbon	06/04/2015	SM5310C	< 5000	< 1000	< 1000	**6100**	**3200**
Total Organic Carbon	06/16/2015	SM5310C	--	--	< 1000	--	--
Total Suspended Solids	01/20/2015	SM4500-P-E	--	--	--	--	**2400**

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
Total Suspended Solids	03/31/2015	SM2540D	**1100000**	**24000000**	--	--	--
Total Suspended Solids	04/15/2015	SM2540D	**750000**	**13000000**	**4300**	< 2500	**5400**
Total Suspended Solids	05/21/2015	SM2540D	**5640000**	**5120000**	--	**3000**	**47600**
Total Suspended Solids	06/04/2015	SM2540B	--	--	**175000**	--	--
Total Suspended Solids	06/04/2015	SM2540D	--	--	< 1000	--	--
Total Suspended Solids	06/16/2015	SM2540D	--	--	< 1000	--	--
Tributyltin	01/20/2015	GC-FPD	--	--	--	--	< 0.03
Tributyltin	05/21/2015	GC-FPD	< 0.03	< 0.03	--	< 0.03	< 0.03
Tributyltin	06/04/2015	GC-FPD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tributyltin	06/16/2015	GC-FPD	--	--	< 0.01	--	--

ug/L - microgram per liter
pci/L - picocuries per liter
mpn/100ml - most probable number per 100 millilitres

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Bacteria (mpn/100ml)										
Entrococci	21	34	46	73	0.5	1	539	921	10	12
Escherichia coli	2	4	0	0	0	0	437	613	14	23
Dissolved Metals (ug/L)										
Aluminum	78.1	166	42	61.2	54.3	163	0	0	9.6	28.8
Antimony	8.69	15	14	21.4	0.126	0.378	0	0	0.282	0.615
Arsenic	271	453	185	604	0	0	1.49	2.57	2.27	5.9
Barium	527	648	694	788	45.5	109	51.8	55.9	84.3	117
Beryllium	0	0	0	0	0	0	0	0	0	0
Boron	1870	2880	1980	2420	661	803	235	246	367	428
Cadmium	0.03	0.12	1.79	7.05	0	0	0	0	0	0
Calcium	74700	126000	121000	142000	28100	32100	117000	121000	33300	36500
Chromium	0.288	1.15	56	223	0	0	0	0	0	0
Chromium (III)	0	0	112	223	0	0	0	0	0	0
Cobalt	1.05	2.62	7.96	20	0	0	0	0	0	0
Copper	1.69	2.51	203	773	1.11	2.25	2.86	4.36	3.49	6
Hexavalent Chromium	0	0	0	0	0	0	0	0	0	0
Iron	26.3	57.4	49	196	205	601	2.5	7.4	56	160
Lead	0	0	13.2	52.7	0	0	0	0	0	0
Lithium	257	454	388	520	1.84	5.53	190	370	0	0
Magnesium	24600	32600	23600	27300	8960	13400	4330	4640	8620	11300
Manganese	535	886	420	873	73	220	3.26	9.78	22.3	49.1
Mercury	0	0	0	0	0	0	0	0	0	0
Molybdenum	182	313	38.1	93.6	0	0	0	0	2	7
Nickel	5.64	14.6	61.2	187	2.65	7.1	16.6	25.9	2.87	8.6
Potassium	10700	12600	14600	15500	1290	1850	28500	29700	3330	3360
Selenium	0	0	1.81	7.24	0	0	2.88	5.29	0	0
Silver	0	0	0	0	0	0	0	0	0	0
Sodium	38000	79600	10300	12200	21000	21600	9600	9620	17100	19300
Sulfide	0	0	0	0	0	0	0	0	0	0
Thallium	0.33	0.531	7.3	19.3	0	0	0.047	0.141	0.015	0.061
Vanadium	54.4	88.8	183	291	0	0	0	0	0	0
Zinc	1.97	4.99	72	284	3.22	7.62	2.72	4.46	0.9	1.9
PCBs (ug/L)										
Aroclor 1016	0	0	0	0	0	0	0	0	0	0
Aroclor 1221	0	0	0	0	0	0	0	0	0	0
Aroclor 1232	0	0	0	0	0	0	0	0	0	0
Aroclor 1242	0	0	0	0	0	0	0	0	0	0
Aroclor 1248	0	0	0	0	0	0	0	0	0	0
Aroclor 1254	0	0	0	0	0	0	0	0	0	0
Aroclor 1260	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Pesticides (ug/L)										
4,4-DDD	0	0	0	0	0	0	0	0	0	0
4,4-DDE	0	0	0	0	0	0	0	0	0	0
4,4-DDT	0	0	0	0	0	0	0	0	0	0
Aldrin	0	0	0	0	0	0	0	0	0	0
alpha-BHC	0	0	0	0	0	0	0	0	0	0
alpha-Chlordane	0	0	0	0	0	0	0	0	0	0
alpha-Endosulfan	0	0	0	0	0	0	0	0	0	0
Azinphos-methyl	0	0	0	0	0	0	0	0	0	0
beta-BHC	0	0	0	0	0	0	0	0	0	0
beta-Endosulfan	0	0	0	0	0	0	0	0	0	0
Chlordane	0	0	0	0	0	0	0	0	0	0
Chlorpyrifos	0	0	0	0	0	0	0	0	0	0
delta-BHC	0	0	0	0	0	0	0	0	0	0
Demeton, Total	0	0	0	0	0	0	0	0	0	0
Demeton-O	0	0	0	0	0	0	0	0	0	0
Demeton-S	0	0	0	0	0	0	0	0	0	0
Diazinon	0	0	0	0	0	0	0	0	0	0
Dieldrin	0	0	0	0	0	0	0	0	0	0
Endosulfan Sulfate	0	0	0	0	0	0	0	0	0	0
Endrin	0	0	0	0	0	0	0	0	0	0
Endrin Aldehyde	0	0	0	0	0	0	0	0	0	0
gamma-BHC	0	0	0	0	0	0	0	0	0	0
Heptachlor	0	0	0	0	0	0	0	0	0	0
Heptachlor Epoxide	0	0	0	0	0	0	0	0	0	0
Malathion	0	0	0	0	0	0	0	0	0	0
Methoxychlor	0	0	0	0	0	0	0	0	0	0
Parathion	0	0	0	0	0	0	0	0	0	0
Toxaphene	0	0	0	0	0	0	0	0	0	0
Radium (pCi/L)										
Radium-226	1.57	2.07	3.48	6.3	0.116	0.23	0.31	0.492	0.33	0.729
Radium-228	0.49	1.47	1.4	2.88	0.0667	0.371	0.408	0.475	0.119	0.283

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
SVOCs (ug/L)										
1,2,4-Trichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Diphenylhydrazine	0	0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
2,4,6-Trichlorophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dichlorophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dimethylphenol	0	0	0	0	0	0	0	0	0	0
2,4-Dinitrophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dinitrotoluene	0	0	0	0	0	0	0	0	0	0
2,6-Dinitrotoluene	0	0	0	0	0	0	0	0	0	0
2-Chloronaphthalene	0	0	0	0	0	0	0	0	0	0
2-Chlorophenol	0	0	0	0	0	0	0	0	0	0
2-Nitrophenol	0	0	0	0	0	0	0	0	0	0
3,3'-Dichlorobenzidine	0	0	0	0	0	0	0	0	0	0
4,6-Dinitro-2-methylphenol	0	0	0	0	0	0	0	0	0	0
4-Bromophenyl Phenyl Ether	0	0	0	0	0	0	0	0	0	0
4-Chlorophenyl-phenylether	0	0	0	0	0	0	0	0	0	0
4-Nitrophenol	0	0	0	0	0	0	0	0	0	0
Acenaphthene	0	0	0	0	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0	0	0	0	0
Anthracene	0	0	0	0	0	0	0	0	0	0
Benzidine	0	0	0	0	0	0	0	0	0	0
Benzo[a]anthracene	0	0	0	0	0	0	0	0	0	0
Benzo[a]pyrene	0	0	0	0	0	0	0	0	0	0
Benzo[b]fluoranthene	0	0	0	0	0	0	0	0	0	0
Benzo[g,h,i]perylene	0	0	0	0	0	0	0	0	0	0
Benzo[k]fluoranthene	0	0	0	0	0	0	0	0	0	0
Bis(2-chloro-1-methylethyl) Ether	0	0	0	0	0	0	0	0	0	0
Bis(2-chloroethoxy)methane	0	0	0	0	0	0	0	0	0	0
Bis(2-chloroethyl) Ether	0	0	0	0	0	0	0	0	0	0
Bis(2-ethylhexyl) Phthalate	0	0	0	0	0	0	0	0	0	0
Butylbenzyl Phthalate	0	0	0	0	0	0	0	0	0	0
Chrysene	0	0	0	0	0	0	0	0	0	0
Dibenz[a,h]anthracene	0	0	0	0	0	0	0	0	0	0
Diethyl Phthalate	0	0	0	0	0	0	0	0	0	0
Dimethyl Phthalate	0	0	0	0	0	0	0	0	0	0
Di-n-Butyl Phthalate	0	0	0	0	0	0	0	0	0	0
Di-n-octyl Phthalate	0	0	0	0	0	0	0	0	0	0
Fluoranthene	0	0	0	0	0	0	0	0	0	0
Fluorene	0	0	0	0	0	0	0	0	0	0
Hexachlorobenzene	0	0	0	0	0	0	0	0	0	0
Hexachlorobutadiene	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclopentadiene	0	0	0	0	0	0	0	0	0	0
Hexachloroethane	0	0	0	0	0	0	0	0	0	0
Indeno[1,2,3-cd]pyrene	0	0	0	0	0	0	0	0	0	0
Isophorone	0	0	0	0	0	0	0	0	0	0
Kepone	0	0	0	0	0	0	0	0	0	0
Naphthalene	0	0	0	0	0	0	0	0	0	0
Nitrobenzene	0	0	0	0	0	0	0	0	0	0
N-Nitrosodimethylamine	0	0	0	0	0	0	0	0	0	0
N-Nitroso-di-n-propylamine	0	0	0	0	0	0	0	0	0	0
N-Nitrosodiphenylamine	0	0	0	0	0	0	0	0	0	0
Nonylphenol	0	0	0	0	0	0	0	0	0	0
p-Chloro-m-cresol	0	0	0	0	0	0	0	0	0	0
Pentachlorophenol	0	0	0	0	0	0	0	0	0	0
Phenanthrene	0	0	0	0	0	0	0	0	0	0
Phenol	0	0	0	0	0	0	0	0	0	0
Pyrene	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Total Metals (ug/L)										
Aluminum	33100	76300	139000	249000	81.3	244	205	334	147	261
Antimony	8.68	13.5	9.92	13.4	0.238	0.715	0.253	0.355	0.42	0.909
Arsenic	486	1020	765	1460	0	0	6.08	8.57	3.77	7.43
Barium	1340	2510	4800	9370	47.3	114	59.4	59.9	92	125
Beryllium	9.52	22.6	60.4	87.7	0	0	0	0	0	0
Boron	1870	2790	2010	2190	649	777	228	238	356	413
Cadmium	0.724	2.26	5.9	11.5	0	0	0	0	0	0
Calcium	112000	137000	193000	228000	24400	32000	123000	125000	32600	35700
Chromium	47.1	112	354	557	0	0	1.19	3.08	0	0
Chromium (III)	68	112	450	557	0	0	0	0	0	0
Cobalt	36.5	77.6	171	265	0	0	2.8	5.5	0	0
Copper	144	363	1000	1780	1.16	2.81	3.91	6.05	5.11	11
Hexavalent Chromium	0	0	5.3	16	5.7	17	0	0	3	12
Iron	12900	27800	46500	103000	349	1030	700	1410	336	481
Lead	58.1	152	309	579	0	0	0.49	1.47	0.0635	0.254
Lithium	270	507	424	579	1.8	5.39	330	330	160	320
Magnesium	26900	32500	39200	47000	8910	13300	4470	4880	8700	11200
Manganese	928	1280	1470	1850	80.3	241	216	542	102	175
Mercury	0.0473	0.189	2.12	5.39	0.049	0.147	0	0	0	0
Molybdenum	169	305	24.4	64.9	0	0	0	0	2	7
Nickel	57	126	381	625	2.83	7.55	15.6	20.3	2.98	8.4
Potassium	16200	23400	29600	44500	1310	1860	29300	30200	3410	3470
Selenium	0	0	71.1	144	0	0	5.36	10.6	0	0
Silver	0	0	0	0	0	0	0	0	0	0
Sodium	36500	76000	12500	16200	21100	22000	9850	9890	17200	19600
Thallium	3.12	7.96	23.3	46.4	0	0	0.079	0.141	0.0335	0.134
Vanadium	218	407	1000	1420	0	0	0	0	1.4	2.8
Zinc	92.2	228	512	943	1.83	5.5	8.75	16.9	9.4	14

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
VOCs (ug/L)										
1,1,1-Trichloroethane	0	0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	0	0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	0	0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	0	0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	0	0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,3-Dichloropropene, Total	0	0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
2-Chloroethyl Vinyl Ether	0	0	0	0	0	0	0	0	0	0
Acrolein	0	0	0	0	0	0	0	0	0	0
Acrylonitrile	0	0	0	0	0	0	0	0	2.98	8.95
Benzene	0	0	0	0	0	0	0	0	0	0
Bromodichloromethane	0	0	0	0	0	0	0	0	0	0
Bromoform	0	0	0	0	0	0	0	0	0	0
Bromomethane	0	0	0	0	0	0	0	0	0	0
Carbon Tetrachloride	0	0	0	0	0	0	0	0	0	0
Chlorobenzene	0	0	0	0	0	0	0	0	0	0
Chloroethane	0	0	0	0	0	0	0	0	0	0
Chloroform	0	0	0	0	0	0	0	0	0	0
Chloromethane	0	0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	0	0	0	0	0	0	0	0	0	0
Dibromochloromethane	0	0	0	0	0	0	0	0	0	0
Ethylbenzene	0	0	0	0	0	0	0	0	0	0
m,p-Xylenes	0	0	0	0	0	0	0	0	0	0
Methylene Chloride	0	0	0	0	0	0	0	0	0	0
o-Xylene	0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	0	0	0	0	0	0	0	0	0	0
Toluene	0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	0	0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	0	0	0	0	0	0	0	0	0	0
Trichloroethene	0	0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	0	0	0	0	0	0	0	0	0	0
Vinyl Chloride	0	0	0	0	0	0	0	0	0	0
Xylenes, Total	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

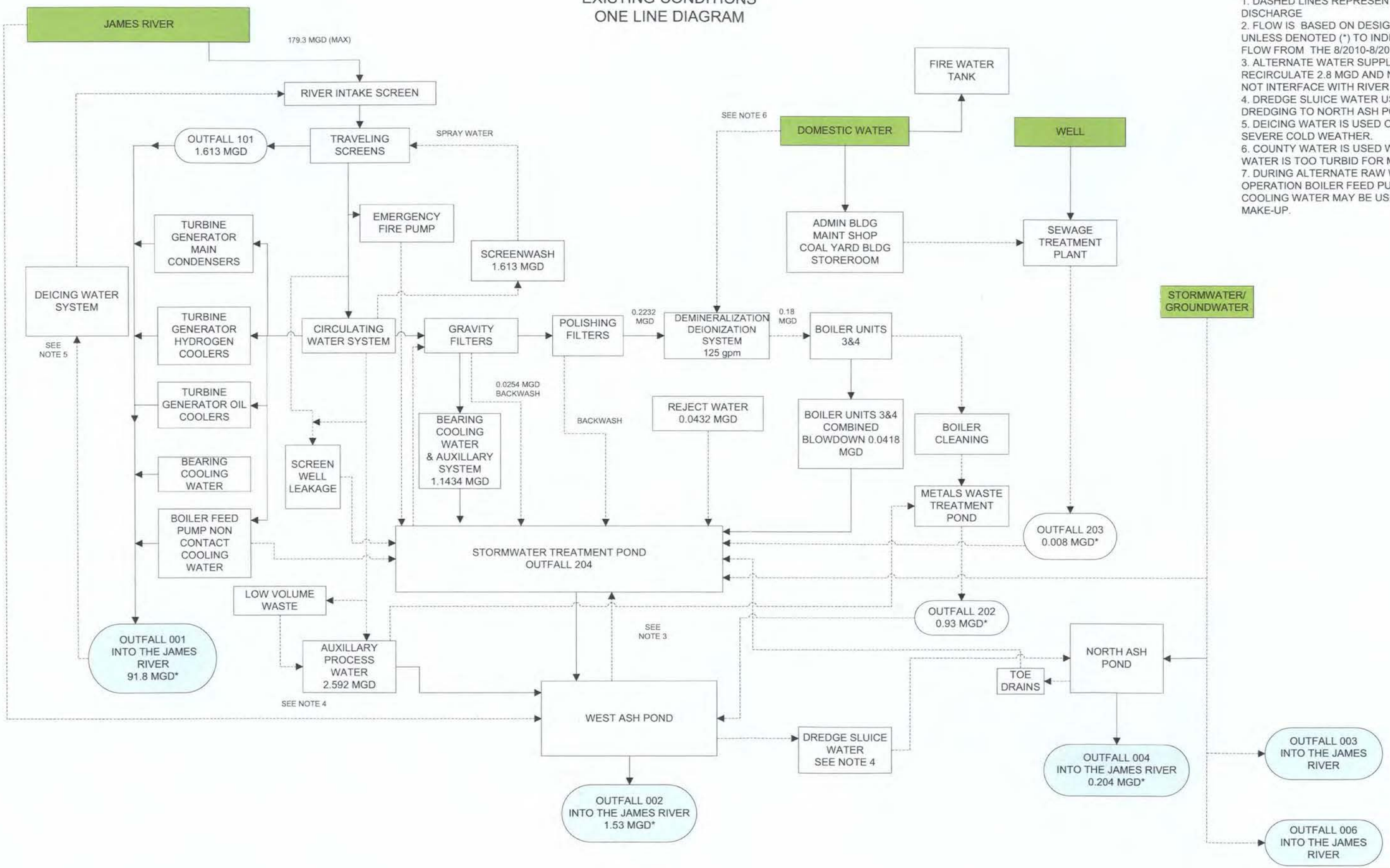
	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
WQ/Other (ug/L)										
Alkalinity, Total	377000	430000	399000	420000	85000	110000	136000	136000	103000	113000
Ammonia	280	330	300	310	0	0	0	0	0	0
Ammonia Nitrogen	460	460	210	210	0	0	90	90	70	80
Biochemical Oxygen Demand	0	0	700	2000	200	700	0	0	0	0
Bromide	400	790	55	110	120	230	1560	3050	60	180
Chemical Oxygen Demand	643000	1170000	2510000	3920000	0	0	18400	22100	5430	16300
Chloride	14800	17000	4200	5500	11000	11800	1900	3800	14600	15000
Cyanide	0	0	0	0	0	0	6	12	0	0
Fluoride	480	600	83	130	30	100	500	500	15	44
Hardness	455000	476000	654000	764000	96100	130000	322000	330000	117000	128000
Nitrate	0	0	0	0	0	0	0	0	85	170
Nitrite	0	0	0	0	0	0	0	0	0	0
Nitrogen, Nitrate-Nitrite	10	40	41	83	53	120	20	40	70	170
Nitrogen, Total Kjeldahl	1130	1480	6320	11000	110	320	480	560	110	340
Oil & Grease, Total Rec	0	0	0	0	0	0	0	0	0	0
Phosphorus	1720	2930	8650	12900	7	20	10	20	30	60
Sulfate	40000	74000	45400	53000	894000	2610000	238000	255000	36600	44600
Sulfide	0	0	0	0	0	0	0	0	0	0
Total Dissolved Solids	460000	500000	479000	500000	192000	200000	472000	493000	152000	225000
Total Organic Carbon	0	0	0	0	0	0	6200	6200	3900	5200
Total Suspended Solids	2500000	5640000	14000000	24000000	44800	175000	2000	3000	18500	47600
Tributyltin	0	0	0	0	0	0	0	0	0	0

ug/L - microgram per liter
pci/L - picocuries per liter
mpn/100ml - most probable number per 100 millilitres
Zero Value used in place of all non-detected parameters

APPENDIX I

Existing Conditions One-Line Diagram

BREMO POWER STATION
STATION WATER FLOW
EXISTING CONDITIONS
ONE LINE DIAGRAM



NOTES:
1. DASHED LINES REPRESENT INTERMITTENT DISCHARGE
2. FLOW IS BASED ON DESIGN CAPACITY UNLESS DENOTED (*) TO INDICATE AVERAGE FLOW FROM THE 8/2010-8/2014 DMRS
3. ALTERNATE WATER SUPPLY WILL RECIRCULATE 2.8 MGD AND NORMALLY WILL NOT INTERFACE WITH RIVER
4. DREDGE SLUICE WATER USED ONLY WHEN DREDGING TO NORTH ASH POND
5. DEICING WATER IS USED ONLY DURING SEVERE COLD WEATHER.
6. COUNTY WATER IS USED WHEN RIVER WATER IS TOO TURBID FOR MAKE-UP WATER
7. DURING ALTERNATE RAW WATER SYSTEM OPERATION BOILER FEED PUMP NON CONTACT COOLING WATER MAY BE USED AS SYSTEM MAKE-UP.

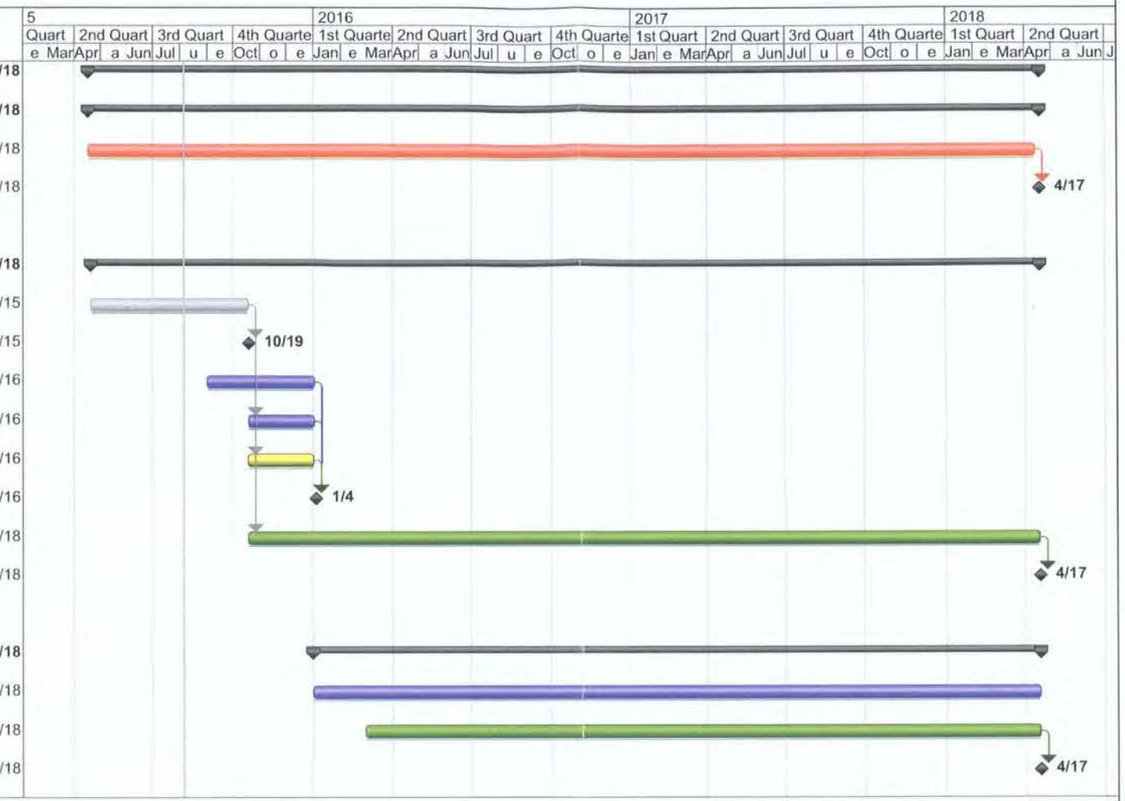
REVISED 8/2015

APPENDIX II

Tentative Closure Construction Schedule

Bremo Power Station CCR Pond Closure Project - Construction and VPDES Schedule

ID	Task Name	Start	Finish
1	**Construction Schedule**	**Fri 4/17/15**	**Tue 4/17/18**
2	**Regulatory Schedule**	**Fri 4/17/15**	**Tue 4/17/18**
3	Closure Timeframe for CCR Impoundments	Fri 4/17/15	Thu 4/12/18
4	Closure Date from EPA CCR Rule	Tue 4/17/18	Tue 4/17/18
5			
6	**West Ash Pond Clean Closure Schedule (includes Metals Pond)**	**Mon 4/20/15**	**Tue 4/17/18**
7	Hydraulic Dredging of CCR to North Pond and Decanting	Mon 4/20/15	Sun 10/18/15
8	Inactivate CCR Ponds (West and North Ash Ponds)	Mon 10/19/15	Mon 10/19/15
9	**Stage I - Stormwater Management Pond w/TSS control to Outfall 002**	Tue 9/1/15	Fri 1/1/16
10	**Stage I - Contact Stormwater from West Ash Pond w/TSS control to North Ash Pond (Outfall 004)**	Mon 10/19/15	Fri 1/1/16
11	Repurposing of the West Ash Pond	Mon 10/19/15	Fri 1/1/16
12	**Stage I - Routing of Stormwater Management Pond to Low Volume Waste Pond (Outfall 002)**	Mon 1/4/16	Mon 1/4/16
13	Clean Closure of the remaining West Ash Pond and Metals Pond	Mon 10/19/15	Mon 4/16/18
14	West Ash Pond and Metals Pond Clean Closed	Tue 4/17/18	Tue 4/17/18
15			
16	**North and East Ash Pond Closure Schedule**	**Fri 1/1/16**	**Tue 4/17/18**
17	**Stage II - Contact Stormwater/Dewatering Water from North/East Ponds w/TSS Control (Outfall TBD)**	Fri 1/1/16	Mon 4/16/18
18	Closure of the North and East Ash Ponds	Tue 3/1/16	Mon 4/16/18
19	North and East Ash Ponds Closed	Tue 4/17/18	Tue 4/17/18



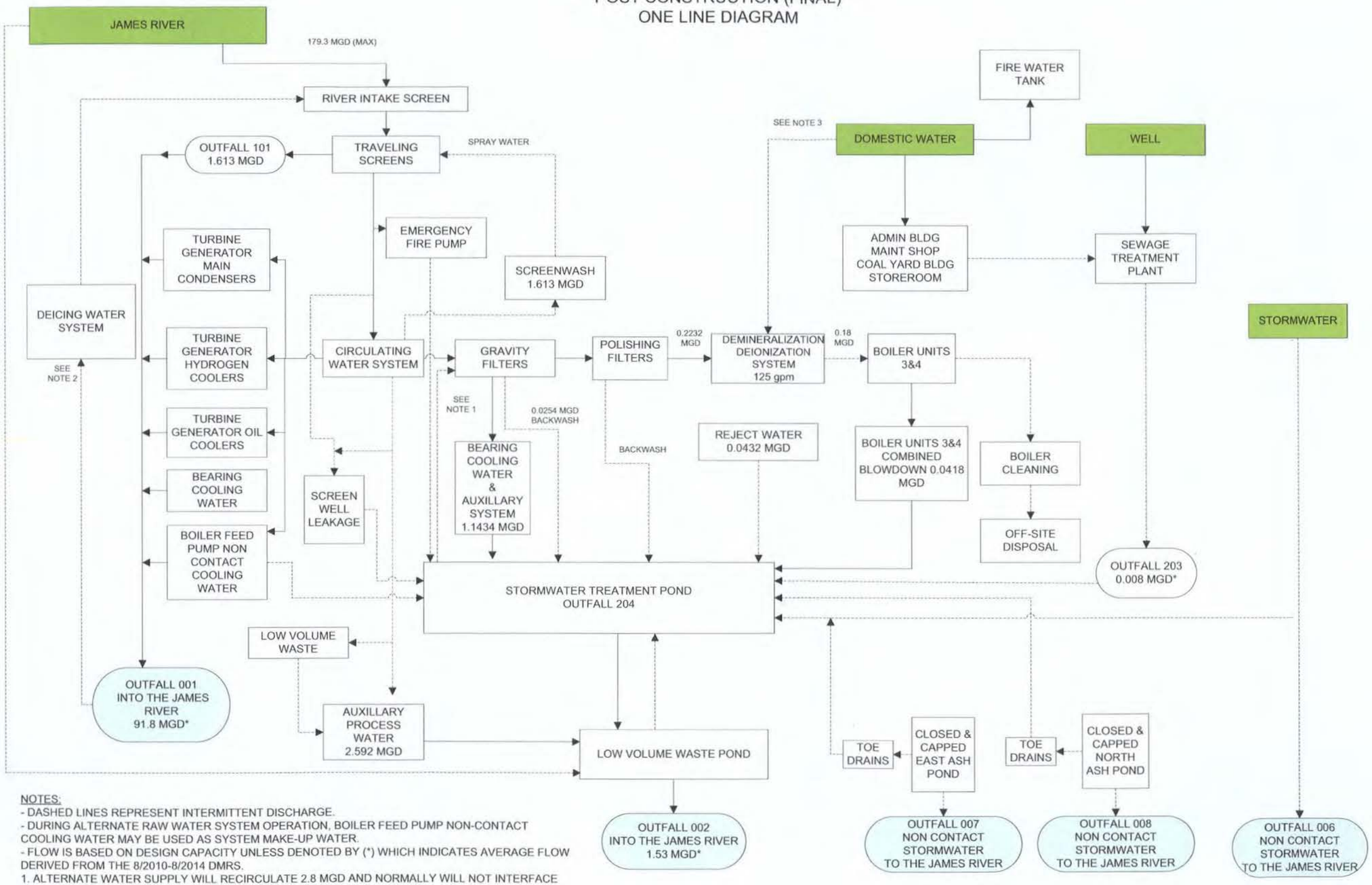
Project: VPDES Schedule Ver. 1.1
Date: Wed 8/5/15

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

APPENDIX III

Post-Construction (Final) On-Line Diagram

BREMO POWER STATION
STATION WATER FLOW
POST CONSTRUCTION (FINAL)
ONE LINE DIAGRAM



NOTES:
- DASHED LINES REPRESENT INTERMITTENT DISCHARGE.
- DURING ALTERNATE RAW WATER SYSTEM OPERATION, BOILER FEED PUMP NON-CONTACT COOLING WATER MAY BE USED AS SYSTEM MAKE-UP WATER.
- FLOW IS BASED ON DESIGN CAPACITY UNLESS DENOTED BY (*) WHICH INDICATES AVERAGE FLOW DERIVED FROM THE 8/2010-8/2014 DMRS.

1. ALTERNATE WATER SUPPLY WILL RECIRCULATE 2.8 MGD AND NORMALLY WILL NOT INTERFACE WITH RIVER.
2. DEICING WATER IS USED ONLY DURING SEVERE COLD WEATHER.
3. COUNTY WATER IS USED WHEN RIVER WATER IS TOO TURBID FOR USE AS MAKE-UP WATER.

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DEQ VALLEY
OCT 08 2015
To:
Date:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 6, 2015

Ms. Amy Owens
Regional Director
Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

RE: Dominion-Bremo Power Station VPDES Permit No. VA0004138
Permit Application Addendum (Rev. 1)

Dear Ms. Owens:

Dominion's application for renewal of the subject permit was submitted to your office on January 14, 2015. An addendum to the application was subsequently submitted on August 6, 2015 in order to incorporate changes in wastewater management that are anticipated to result from closure of the station's existing ash ponds. We have since discussed the application addendum with DEQ staff and have made revisions to the document in order to incorporate comments received during those discussions. The revised addendum is enclosed.

Please feel free to contact Ken Roller at (804) 273-3494 or kenneth.roller@dom.com should you have any questions concerning the revised application addendum.

Sincerely,

Cathy C. Taylor

Cathy C. Taylor
Director, Electric Environmental Services

Attachment: Permit Application Addendum (Rev 1), *Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0004138, Virginia Electric and Power Company, Bremo Power Station*

CERTIFICATION

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 the 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.

NAME: David A. Craymer

OFFICIAL TITLE Vice President, Power Generation System Operations

PHONE NO.: (804) 273-3685

SIGNATURE:

DATE SIGNED: 10/2/15

Permit Application Sign-Off Sheet

Project/Facility: Ash Pond Closure Project/Bremo Power Station

ApplicationType: Revisions to Permit Application Addendum

The following Permit Team members participated in a comprehensive review of the subject permit application and agree that the application is ready for submittal to the applicable agency: **[Ken Roller, Doug Wight, Bremo Power Station (Bill Reed, Greg Seercy, Taylor Engen, Randy Montiperto), Mike Glagola, Golder, Inc.]**

On behalf of my organization, I agree that the application is accurate and inclusive and ready for submittal to the applicable permitting agency.

[Environmental]

Executive or Designee Signature — Date: 10/5/15

[Organization (Construction/Engineering]

Executive or Designee Signature — Date: 10-07-2015

[Organization (Operations)]

Executive or Designee Signature — Date: 10/8/15

PERMIT APPLICATION ADDENDUM (REV. 1)

Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0004138

Virginia Electric and Power Company

Bremo Power Station

Dominion

Submitted To: Commonwealth of Virginia
Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, VA 22801

Prepared For: Virginia Electric and Power Company
1038 Bremo Road
Bremo Bluff, VA 23022

Prepared By: Golder Associates Inc.
2108 W. Laburnum Avenue, Suite 200
Richmond, VA 23227

September 2015

Reference No. 1520-347.300

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EXECUTIVE SUMMARY

The Bremo Power Station (Station) is located in Fluvanna County, Virginia at 1038 Bremo Road, just east of Route 15 (James Madison Highway) and north of the James River. The Station is owned and operated by Virginia Electric and Power Company, operating as Dominion. The Station recently converted from a coal-fired power plant to a natural gas-fired power plant. Coal Combustion Residuals (CCR) from historical coal-fired operations are stored in three impoundments on-site (North Ash Pond, West Ash Pond, and East Ash Pond). Process water from these ponds and other Station activities has historically been discharged with contact stormwater to the James River pursuant to the authorization, limits, and conditions of a Virginia Department of Environmental Quality (DEQ) Virginia Pollutant Discharge Elimination System (VPDES) Permit (Permit No. VA0004138).

In anticipation of the CCR Final Rule, Dominion began planning for the permanent closure of the North Ash Pond, West Ash Pond, and East Ash Pond as inactive CCR surface impoundments. The West Ash Pond will be closed in accordance with §257.100(b)(5) of the CCR Final Rule through removal of CCR (*i.e.*, "clean closure"). The North and East Ash Ponds will be closed in accordance with §257.100(b)(1) through (4) of the CCR Final Rule by capping the CCR in place (*i.e.*, "closure-in-place"). The process water generated by the Station is expected to change during and after the closure activities.

Accordingly, Dominion has prepared this Permit Application Addendum (Addendum) for the Bremo Power Station to clarify the existing stormwater and process water conditions, the proposed conditions that will exist during closure activities, and the conditions that will exist after closure is completed, which is expected before April 17, 2018. Based on the process water characterization activities that were completed for the project, Dominion has identified certain process waters (*i.e.*, waters generated by dewatering the ponds, referred to herein as "ash dewatering water") as possibly requiring treatment beyond that which is already in place at the Station. Based on these findings, a Pre-treatment System has been conceptually designed to treat the ash dewatering water as needed to protect water quality and achieve water quality-based limits established by DEQ. Dominion anticipates operating the Pre-treatment System as needed for the duration of the construction project.

SIGNATURE PAGE

This Addendum has been prepared by a qualified engineer on behalf of Virginia Electric and Power Company (Dominion) for the Bremo Power Station in Fluvanna County, Virginia. The Addendum is designed to address and explain proposed changes in stormwater and process water discharges that are anticipated at the Bremo Power Station until and after the site closure activities are considered complete (prior to April 17, 2018).

Signature:

Name & Title

Ron DiFrancesco, P.E.
Principal and Senior Consultant

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1.0 INTRODUCTION

The Bremo Power Station (Station) is owned and operated by Virginia Electric and Power Company (Dominion) in Fluvanna County, Virginia. The approximate location of the Station is illustrated on the inset United States Geological Survey (USGS) topographic map on Drawing 1. Stormwater and process water generated by the Station are currently discharged to the James River via nine permitted outfalls – 001, 101, 002, 202 (internal outfall), 203 (internal outfall), 204 (internal outfall), 003, 004, and 006. The approximate locations of the existing permitted outfalls are shown on Drawing 2. The outfalls are permitted under a Virginia Department of Environmental Quality (DEQ) Virginia Pollutant Discharge Elimination System (VPDES) Permit (Permit No. VA0004138). The permit was issued on August 13, 2010, and has an expiration date of July 31, 2015. An application for reissuance of the permit was submitted to DEQ on January 14, 2015. This Permit Application Addendum (Addendum) is an addendum to the January 14, 2015, reissuance application.

The purpose of this Addendum is to describe Dominion's planned efforts to close three existing ash impoundments (North, West, and East Ash Ponds) under the CCR Final Rule. As a result of the closure activities, the configuration for process water and stormwater management activities at the Station will change from that which is currently permitted and proposed in the January 14, 2015, renewal application.[1] This Addendum presents the proposed:

- changes in the stormwater and process water management configuration that will be required during project closure activities through April 17, 2018 (interim period), and
- operating configuration for stormwater and process water management following the completion of closure activities (final period).

Details for the existing, interim (construction phase), and final (post-construction) water management configurations are presented in the following sections of this Report.

[1] It should be noted that some of the planned changes in wastewater sources and configurations that will occur during the closure process will not appreciably change the characteristics of existing discharges beyond those anticipated by the existing permit. Consequently, Dominion submitted a separate Notice of Planned Changes for these activities, and has obtained DEQ concurrence that they may be carried out under the existing permit.

2.0 EXISTING OPERATING CONFIGURATION

Stormwater and process water generated by the Station are currently discharged via nine (9) VPDES permitted outfalls. The receiving water is the James River. A map of the Station, ponds, and existing permitted outfalls and sampling locations is provided as Drawing 2. The source waters to each outfall are described in detail in the January 14, 2015, application for reissuance, included in the detailed One-line Diagram in Appendix I of this Addendum, and are summarized below.

Outfall	Source Water/Process
001	Condenser Cooling Water
101	Intake Screen Backwash
002	Industrial Stormwater (West Ash Pond)
202	Metals Cleaning Waste Treatment Basin (directed to 002)
203	Sewage Treatment Plant (STP; to 002 via Stormwater Management Pond)
204	Coal Pile Runoff (directed to 002 via Stormwater Management Pond; SWMP)
003	Non-contact Stormwater (East Ash Pond)
004	Industrial Stormwater (North Ash Pond)
006	Non-contact Stormwater (Station area outside of floodwall)

The existing operating configurations for outfall 202 (Metals Pond), outfall 002 (West Pond), outfall 003 (East Pond), outfall 204 (Stormwater Management Pond), and outfall 004 (North Ash Pond) are summarized in the following sections, as the configuration for these outfalls is proposed for modification under this Addendum.

2.1 Outfall 202 - Metals Pond

As depicted on Drawing 2, the Metals Pond is located on the west side of the West Ash Pond in the western area of the Station. The Metals Pond has historically been used to manage the Station's metals cleaning wastewater. The pond is no longer needed for this purpose and, consequently, Dominion plans to close the Metals Pond during the ash pond closure process. A Closure Plan for the Metals Pond will be submitted to DEQ under separate cover. As illustrated on the One-line Diagram in Appendix I (under the source water heading stormwater/groundwater) and on Drawing 3 (Process Flow Diagram for existing conditions), water from the Metals Pond is discharged intermittently through internal outfall 202 to the West Ash Pond, with the West Ash Pond discharging to the James River via outfall 002. The currently permitted operating conditions for the Metals Pond are expected to continue through October 18, 2015, at which time closure activities for the Metals Pond (accumulated materials and water removal) are expected to commence.

2.2 Outfall 002 - West Ash Pond

As presented on Drawing 2, the West Ash Pond is located in the western area of the Station. The West Ash Pond is an active pond that was formerly used for CCR management, and is currently used to manage the Station's low-volume industrial wastewater. As illustrated on the One-line Diagram in

Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), water from the West Ash Pond is routed through a series of drainage structures to outfall 002. The Station is currently dredging ash from the West Ash Pond to the North Ash Pond for permanent storage, and will continue to do so until October 18, 2015. Dredged material will be placed at the far north end of the North Ash Pond in order to provide the maximum residence time for associated wastewaters prior to discharge through outfall 004. Dredging has drawn the water level down in the West Ash Pond to the point that there is no discharge from outfall 002 except during infrequent periods of unusually heavy rainfall.

2.3 Outfall 003 - East Ash Pond

As depicted on Drawing 2, the East Ash Pond is located in the southeast area of the Station. The East Ash Pond is an inactive pond that was formerly used to manage CCR. As illustrated on the One-line Diagram in Appendix I (under the source water heading stormwater/groundwater) and on Drawing 3 (Process Flow Diagram for existing conditions), non-contact stormwater from the East Ash Pond currently is routed through a series of drainage structures on an intermittent basis (precipitation dependent) to outfall 003. The currently permitted operating conditions for the inactive East Ash Pond are expected to continue through January 1, 2016, when closure (capping) activities are expected to begin with ash dewatering activities.[2]

2.4 Outfall 204 - Stormwater Management Pond

As depicted on Drawing 2, the Stormwater Management Pond is located in the central area of the Station property. The Stormwater Management Pond has historically been used primarily to manage coal pile stormwater runoff and other secondary process water sources as illustrated in the One-line Diagram (Appendix I). With removal of the coal pile following conversion of the Station from a coal-fired power plant to a natural gas-fired power plant, the pond has been maintained for managing stormwater runoff from the Station, as well as the secondary Station low-volume process water sources (existing permitted source waters). The North Ash Pond toe drain is also routed to the Stormwater Management Pond.

As illustrated on the One-line Diagram in Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), water from the Stormwater Management Pond is routed to the West Ash Pond via internal outfall 204, with the West Ash Pond discharging to the James River via outfall 002. The currently permitted operating conditions for the Stormwater Management Pond are expected to continue through October 18, 2015, when the influent water source to the West Ash Pond will need to be eliminated to complete mechanical dredging activities and initiate the closure of the West Ash Pond. It will be

[2] On June 17, 2015, Dominion contacted DEQ concerning the determination that groundwater from the area associated with the East Ash Pond contributes to a drainage feature associated with existing outfall 004. Subsequent related correspondence concerning this groundwater contribution was provided to DEQ by letter dated June 22, 2015, and in a separate permit application addendum submitted by letter dated June 30, 2015.

necessary to route outfall 204 [with total suspended solids (TSS) control] to outfall 002 and/or outfall 004 in order to complete removal of the ash from the West Ash Pond. A more complete description of the outfall 204 rerouting was provided in a separate Notice of Planned Changes, which obtained DEQ concurrence that the activity may proceed under the existing permit.

2.5 Outfall 004 - North Ash Pond

As depicted on Drawing 2, the North Ash Pond is located in the northeast area of the Station property. The North Ash Pond is used to manage CCR. As illustrated on the One-line Diagram in Appendix I and on Drawing 3 (Process Flow Diagram for existing conditions), contact stormwater from the North Ash Pond is routed via a series of drainage structures to outfall 004. The North Ash Pond also receives dredged ash and associated source waters (see Section 3.1 for source water descriptions) from the West Ash Pond. Dredged materials are placed at the far north end of the North Ash Pond to provide the maximum residence time for associated wastewaters prior to discharge through outfall 004. The currently permitted operating conditions for the North Ash Pond are expected to continue through October 18, 2015, at which time the placement of CCR in the pond will cease, and closure (capping) activities are expected to begin with ash dewatering activities.

3.0 CLOSURE ACTIVITIES

Dominion intends to permanently close the North and East Ash Ponds as inactive CCR surface impoundments under the CCR Final Rule. A map of the Station's proposed conditions and permitted outfalls is provided as Drawing 3. The West Ash Pond will be clean-closed in accordance with §257.100(b)(5) of the CCR Final Rule through removal of the CCR, which will be accomplished by April 17, 2018. The North and East Ash Ponds will be closed-in-place in accordance with §257.100(b)(1) through (4) of the CCR Final Rule by removing free liquids and capping the CCR in place, which will also be completed by April 17, 2018. Once closed as inactive CCR impoundments, the North and East Ash Ponds will no longer be subject to the requirements of the CCR Final Rule; rather, it is anticipated that DEQ will regulate these closed inactive surface impoundments pursuant to the Virginia Solid Waste Management Regulations (VSWMR).

During the closure activities scheduled for completion no later than April 17, 2018, stormwater and process water will continue to be discharged from Station outfalls 001, 101, 203, and 006 with no changes to existing permitted conditions. It is anticipated that these discharges will continue to be covered under the VPDES Permit as renewed and reissued by the DEQ. The discharges from outfalls 002, 202, 003, 204, and 004 are also proposed for inclusion in the renewed and reissued permit; however, as discussed below, the wastewaters contributing to these discharges will change (outfalls 002, 003, and 004); be eliminated as the source systems are modified or taken off-line (outfall 202); or be temporarily re-routed as a result of the ash pond closure process (outfall 204).

Details for the proposed closure activities and associated wastewater management are discussed in the following sections. Dominion would like to have flexibility to properly manage stormwater and process water generated during the closure process. Consequently, we are providing a number of options for the handling and discharge of the water sources that will be generated during the closure process associated with each pond. A Tentative Closure Construction Schedule is presented in Appendix II.

3.1 Source Waters

Discharge source waters associated with the closure of the three inactive CCR impoundments and the Metals Pond are:

1) impoundment decant water,
2) ash dewatering water,
3) contact stormwater,
4) construction non-contact stormwater,
5) post-construction stormwater discharges,
6) Stormwater Management Pond,
7) Metals Pond pumped decant water,
8) Metals Pond contact stormwater,
9) Metals Pond material dewatering water,
10) North Ash Pond Toe Drain, and
11) East Ash Pond Toe Drain.

A description of each of these closure discharge source waters follows:

3.1.1 Impoundment Decant Water

CCR impoundment decant water (IDW) includes surface waters that result from the commingling of a number of wastewater types, including but not necessarily limited to: stormwater, low-volume wastewater, sewage treatment plant (STP) discharges, ash dewatering water (ADW), and waters that are used to convey CCR to an impoundment through sluicing or dredging. As an initial step in the process leading to the closure of the West and North Ash Ponds, it will be necessary to remove the IDW to complete the removal of the ash (West Ash Pond) or allow for dewatering of the ash in order to prepare a stable surface on which to construct the closure cap (North Ash Pond). IDW is currently permitted for discharge through outfalls 002 and 004.

3.1.2 Ash Dewatering Water

ADW is considered to be the pore water within the CCR mass. ADW refers to the water that is produced from the dewatering of the ash in order to stabilize the ash and allow for its removal by mechanical dredging or its grading for the construction of a closure cap system. It is generated from the CCR dewatering process through mechanical means (*e.g.*, vacuum wells, sump pumps, or other *in situ* withdrawal methods) and from cutting drainage ditches or rim ditches into the CCR mass. Consequently, some ADW is expected to be present in the IDW in both the West and North Ash Ponds during dredging of the ash mass from the West Ash Pond to the North Ash Pond. ADW will be produced during the process leading to closure of both the North and East Ash Ponds, and Dominion will need to manage this wastewater independently or in combination with other waste streams.

3.1.3 Contact Stormwater

Contact stormwater is stormwater runoff that has contacted the CCR and is considered process wastewater. Contact stormwater may be present in the IDW for both the West and North Ash Ponds. Contact stormwater will be generated during closure activities for each pond (North, East, and West Ash Ponds) and must be removed from the working areas in order to close the ponds.

3.1.4 Construction Non-contact Stormwater

Construction non-contact stormwater is the stormwater runoff generated during closure activities that has not contacted CCR, but is subject to the permitting requirements under the Virginia Stormwater Management Program (VSMP). Areas where construction non-contact stormwater may be generated include the West Ash Pond after the CCR material has been removed, the North and East Ash Ponds after installation of the geomembrane liner (CCR no longer exposed), and other land disturbance areas that do not expose CCR associated with the closure activities (*e.g.*, soil stockpile, laydown areas, haul roads).

Dominion proposes to discharge construction non-contact stormwater through temporary surface water outfall locations identified and permitted under the VSMP.

3.1.5 Post-construction Stormwater

Post-construction stormwater is the non-contact stormwater runoff from the closed CCR impoundments, closed Metals Pond, and restored disturbed areas after they are stabilized. This discharge water is considered non-contact both under the VPDES and VSMP permits, and does not require post-construction water quality treatment based on the improved post-construction land cover condition of transitioning from open water/impervious area to a managed turf condition.

It is proposed to discharge post-construction stormwater through newly established permanent surface water outfall locations.

3.1.6 Stormwater Management Pond

See Section 2.4 for a description of wastewater sources to the Stormwater Management Pond.

3.1.7 Metals Pond Pumped Decant Water

See Section 2.1 for a description of wastewater sources to the Metals Pond. Metals Pond pumped decant water is water that has accumulated in the Metals Pond and is periodically pumped to the West Ash Pond via internal outfall 202 for treatment and ultimate discharge to the James River via outfall 002.

3.1.8 Metals Pond Contact Stormwater

See Section 2.1 for a description of wastewater sources to the Metals Pond. Metals Pond contact stormwater is stormwater that has contacted the accumulated material in the Metals Pond during closure of the Metals Pond. Metals Pond contact stormwater will need to be removed from the Metals Pond to facilitate closure, and will be monitored for compliance with permitted effluent limits for internal outfall 202.

3.1.9 Metals Pond Material Dewatering Water

See Section 2.1 for a description of wastewater sources to the Metals Pond. Metals Pond material dewatering water is the water that will be produced from dewatering the accumulated material in the Metals Pond to allow for its removal and off-site disposal.

3.1.10 North Ash Pond Toe Drain

The North Ash Pond toe drain water (*i.e.*, from the designed toe drain system for the dam) is currently routed via an open ditch to the Stormwater Management Pond as allowed under the existing VPDES permit. At the time of closure, the toe drain water will be routed via a gravity pipe to the Stormwater Management Pond for treatment and discharge through outfall 002 [see Appendix III – Post-construction (Final) One-line Diagram].

3.1.11 East Ash Pond Toe Drain

The East Ash Pond toe drain water (*i.e.,* from a designed toe drain system for the embankment) will be installed during the Stage II construction activities, and will be routed via a pump station and forcemain to the Stormwater Management Pond for treatment and discharge through outfall 002 [see Appendix III – Post-construction (Final) One-line Diagram].

3.2 Source Water Characterization

As described in Section 3.1.1, IDW may consist of a combination of different wastewater sources. The chemical characteristics of IDW are presented in the Form 2C and Attachment A for outfall 002 (also representative for outfall 004) that were submitted with the January 14, 2015, permit application.

Contact stormwater may be present in the IDW for both the West and North Ash Ponds, and as a surface water, is expected to be similar in quality to IDW, but may contain slightly higher concentrations of certain constituents (*e.g.*, TSS).

To characterize the expected quality of ADW, Stormwater Management Pond effluent, Metals Pond water sources, and the North Ash Pond toe drain water, a series of sampling events was conducted between March and June 2015 by an independent consultant, and by Dominion in January 2015.[3] During these events, samples were collected from representative locations within the source stream for various analyses.

A matrix illustrating the sampling locations and constituents that were analyzed by event is presented in Table 1.[4] To evaluate the expected quality of the ADW, samples were collected from two piezometers that were constructed within the CCR mass of the North and East Ash Ponds. These piezometers, PZ-1 and PZ-2, respectively, were sampled to generate data representative of the expected ADW quality without additional treatment.

During each sampling event for each of these source waters, representative samples were collected using appropriate equipment by qualified sample technicians following EPA surface water sampling protocols and industry standards for groundwater sampling. Samples collected for dissolved analysis were laboratory-filtered with a 0.45-micron filter.

[3] Sampling of the Stormwater Management Pond was performed on January 20, 2015. The samples were collected by Dominion environmental professionals in accordance with EPA protocols and were analyzed by either Dominion Laboratory Services or Air, Water and Soil Laboratories, Inc. (both Virginia certified laboratories) using 40 CFR Part 136 methods. Results of these analyses are also included in Table 2.

[4] During the initial events, sampling and analyses were performed for a selected list of parameters based on the known characteristics of the waste streams. However, following discussions with DEQ staff, the list was expanded to include all parameters that would typically be determined during preparation of a VPDES permit application (*i.e.*, EPA Form 2C and DEQ Attachment A parameters).

The samples were collected in laboratory-provided, pre-preserved (laboratory-filtered metals containers were preserved by the laboratory after filtering), pre-labeled sample containers and placed on ice in a cooler under chain-of-custody control pending delivery to the laboratory for analysis. Samples for analysis by Environmental Conservation Laboratories, Inc. (ENCO) of Cary, North Carolina were shipped to ENCO via commercial overnight courier under chain-of-custody control, and samples for analysis by Air, Water and Soil Laboratories, Inc. (AWS) of Richmond, Virginia, were delivered to AWS under chain-of-custody control. Both AWS and ENCO and their subcontractor laboratories are Virginia Environmental Laboratory Accreditation Program (VELAP) accredited laboratories. The results of the laboratory analyses are presented in Table 2 and are summarized in Table 3.

3.2.1 Impoundment Decant Water, Contact Stormwater, Construction Non-contact Stormwater, and Post-construction Stormwater

The characteristics of IDW are presented in the application for reissuance of Bremo Power Station's VPDES permit, and Dominion plans to continue to discharge IDW during the closure process in accordance with the existing VPDES permit. Polymers may be added to the West and North Ash Ponds to control TSS concentrations as allowed under the permit.

As discussed above, contact stormwater is expected to be similar in characteristics to IDW, but may contain somewhat higher concentrations of certain constituents (*e.g.*, TSS). Therefore, the proposed pre-treatment system for contact stormwater will treat TSS. Pre-treatment will be implemented, as necessary, during the closure activities of the West and North Ash Ponds.

No treatment will be needed for the Station's construction non-contact stormwater and post-construction stormwater.

3.2.2 Ash Dewatering Water

As presented in Table 2 and summarized in Table 3, the samples collected from PZ-1 (North Ash Pond CCR) and PZ-2 (East Ash Pond CCR) are representative of the expected ADW quality prior to any additional treatment. The sample results indicate elevated metals concentrations (total and dissolved) for certain metals, particularly in the PZ-2 samples collected from the East Ash Pond. The elevated metals concentrations appear, in part, to be related to the geochemical conditions (reducing) present within the saturated materials. Specifically, the nearly neutral pH conditions coupled with the low oxidation-reduction potential have facilitated the dissolution of certain minerals, resulting in relatively increased concentrations for certain elements in the AWD samples when compared to other source waters. In general, these elements are: antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, lead, lithium, magnesium, manganese, nickel, potassium, phosphorus, thallium, vanadium, and zinc. The total dissolved solids (TDS) concentrations in the AWD samples are elevated with respect to the other source waters, with the exception of the Metals Pond. In addition, the AWD samples have elevated TSS

concentrations in comparison to the other source waters, contributing to the elevated metals concentrations. In general, the dissolved metals concentrations in the AWD samples (PZ-1 and PZ-2) are substantially lower than the total metals concentrations, indicating the attenuating effect of filtration on the metals concentrations. Notable exceptions are boron, lithium, and molybdenum.

With the exception of Chemical Oxygen Demand (COD), the remaining constituents/parameters that were detected during the AWD characterization sampling activities exhibit concentrations that are generally similar to those observed in the other source waters. The elevated metals concentrations are expected to be attenuated significantly with TSS controls, and thus, the conceptual pre-treatment system is designed to remove TSS with provisions for metals recovery using pH buffering, aeration, and other oxidative processes combined with hydraulic retention time and solids recovery. Dominion believes that the pre-treatment system will be sufficient to attenuate the observed metals concentrations to concentrations protective of water quality.

3.2.3 North Pond Toe Drain, Metals Pond, and Stormwater Management Pond

Results for the Stormwater Management Pond are very similar to data for outfall 002 submitted with the VPDES permit application. In order to complete closure of the West Ash Pond, it will be necessary to route the Stormwater Management Pond discharge directly to outfall 002. Dominion submitted a separate Notice of Planned Changes that demonstrated the similarity between the Stormwater Management Pond and outfall 002, and has obtained DEQ concurrence that the rerouting of the Stormwater Management Pond may be accomplished under the existing permit.

The results for the majority of parameters measured in the North Pond Toe Drain and the Metals Pond (commingled contact stormwater and pumped decant water) were similar to those measured in the Stormwater Management Pond. The North Pond Toe Drain had elevated concentrations of TSS, sulfate, biological oxygen demand (BOD), iron, manganese, and aluminum when compared to the other two effluents; however, for the majority of parameters, concentrations in the North Pond Toe Drain were lower than those measured in the other sources.

4.0 INTERIM PHASE OPERATING CONDITION

Interim operating conditions and discharge configurations will exist at the Station during the closure activities between October 2015 and April 2018.

4.1 Interim Phase Process Flow

Due to the transitional nature of the construction activities, process flow water routing for the North Ash Pond, West Ash Pond, East Ash Pond, Metals Pond, and the Stormwater Management Pond will vary as a result of the construction activities. These transitions in process water routing are grouped into two stages. Stage I includes the clean-closure of the eastern portion of the West Ash Pond and construction of the West Treatment Pond (approximately until January 1, 2016). Stage II includes process water routing through construction of the cap during in-place closure activities for the North and East Ash Ponds. Also as part of the Stage II activities, Dominion will close the Metals Pond.

The Stage I interim discharge configuration shown on Drawing 4 represents the time period covering the West Ash Pond clean-closure and re-purposing construction activities. These routing conditions are expected to be in place from the date for the re-routing of the discharge from the Stormwater Management Pond directly to outfall 002 and/or outfall 004 (per DEQ's concurrence with the Notice of Planned Changes) through December 31, 2015, or until the new West Treatment Pond is placed on line.

Prior to reissuance of the VPDES permit, contact stormwater from the West Ash Pond will be routed to a pre-treatment system for solids removal prior to placement in the North Ash Pond. This treatment and routing of West Ash Pond contact stormwater is consistent with what is allowed under the current permit. Consequently, Dominion submitted a separate Notice of Planned Changes to provide additional information, and obtained DEQ's concurrence that the activity may be carried out under the existing permit.

As part of the permit reissuance process, Dominion would like to add outfall 002 (directly or indirectly via the Stormwater Management Pond) and outfall 003 as additional alternative locations for the discharge of the West Ash Pond contact stormwater. In all cases, the contact stormwater would be pre-treated for solids removal, with additional enhanced treatment as needed to ensure compliance with water quality standards and permit limits.

Construction non-contact stormwater from the West Ash Pond area will be routed for discharge under a VSMP permit. In addition, outfall 204 from the Stormwater Management Pond will be re-routed from the West Ash Pond directly to permitted outfall 002 and/or outfall 004, with pre-treatment for solids removal (per DEQ's concurrence under the separate Notice of Planned Changes). The remaining source waters and discharge systems are not expected to change during the Stage I construction activities.

Specific operational descriptions for the outfalls that will be affected by the Stage I construction activities during the interim period are presented in the following sections, and estimated flows for the interim phase operations (outfalls that will be affected by the interim operations) are summarized in the following table. In issuing the current VPDES permit, DEQ considered the North and West Ash Pond discharges to be substantially identical and assigned wasteload allocations based on the combined discharge flow. DEQ may want to permit the discharges that will result from the ash pond closure project in a similar manner. Consequently, we are providing the individual process wastewater flows for each outfall without contact stormwater, and the combined process water discharge flows for all three outfalls including contact stormwater. It should be noted that the contact stormwater will be generated and discharged on an intermittent basis as dictated by climatic conditions.

Stage I Outfall/Pond	Water Type	Without Contact Stormwater		Combined Discharge Flows Including Contact Stormwater	
		Avg. Flow (MGD)	Max. Flow (MGD)	Avg. Flow (MGD)	Max. Flow (MGD)
002 (SWMP)	CPSW	>1.26	>1.26	1.53	4.2912
004 (North Ash Pond)	CPSW	0.204	0.4090		
Metals Pond (optional)	CPSW discharge eliminated after one-time decant. Pumped decant water will be monitored for compliance with Part IA limits for outfall 202 prior to discharge to the West Ash Pond.				

Note: MGD = million gallons per day
CPSW = commingled process and contact stormwater
SWMP = Stormwater Management Pond

The Stage II interim discharge configuration as shown on Drawing 5 represents the time period covering the North and East Ash Pond closure construction activities, as well as those for the Metals Pond. The routing conditions are expected to be in place from the date the West Treatment Pond (former West Ash Pond) is on line through April 17, 2018, or until the North and East Ash Pond closure activities are completed. As presented, contact stormwater and ADW from the North and East Ash Ponds will be routed to a pre-treatment system (enhanced treatment if needed) prior to discharge via one or more of the existing permitted outfalls (002, 003, 004, 006, the West Treatment Pond, the Stormwater Management Pond, or from a location between existing outfalls 002 and 003). Effluent sampling from the discharge of the pre-treatment system will be conducted to ensure compliance with VPDES permit limits prior to routing the discharge flow to one or more of the identified outfalls.

Construction non-contact stormwater from the North and East Ash Pond construction areas will be routed for discharge under a VSMP permit. In addition, outfall 204 from the Stormwater Management Pond will be re-routed to the West Treatment Pond to outfall 002. The Metals Pond and its internal outfall

(outfall 202) will be decommissioned, and the remaining systems are not expected to change during the Stage II construction activities.

Specific operational descriptions for the outfalls that will be affected by the Stage II construction activities during the interim period are presented in the following sections, and estimated flows for the interim phase operations (outfalls that will be affected by the interim operations) are summarized in the following table. As done with the Stage I discharges, we are providing the individual process wastewater flows for each outfall without contact stormwater, and the combined process water discharge flows for all three outfalls including contact stormwater.

Stage II Outfall/Pond	Water Type	Without Contact Stormwater		Combined Discharge Flows Including Contact Stormwater	
		Avg. Flow (MGD)	Max. Flow (MGD)	Avg. Flow (MGD)	Max. Flow (MGD)
002 (West Treatment Pond)	CPSW	1.53(1)(3)	4.2912(2)(3)	5.53	10.2912
204 (SWMP)	CPSW	>1.26(1)	>1.26(2)		
003 (East Ash Pond)	CPSW	SW(1)	SW(2)		
004 (North Ash Pond)	CPSW	SW(1)	SW(2)		
006 (North Ash Pond)	CPSW	SW(1)	SW(2)		
202 (Metals Pond)	CPSW discharge eliminated after one-time pumped decant to the West Treatment Pond, followed by contact stormwater and material dewatering water pumped to the treatment system with final discharge via the West Treatment Pond to outfall 002 or pump-and-haul for off-site disposal.				

Note: MGD = million gallons per day
CPSW = commingled process and contact stormwater
SWMP = Stormwater Management Pond
SW = stormwater
(1) = flow may increase by 4.0 MGD if treatment system discharge is routed to this outfall
(2) = flow may increase by 6.0 MGD if treatment system discharge is routed to this outfall
(3) = includes the flow from 204 (SWMP)

A summary table of the discharge and monitoring locations for the various source waters to be generated during the Stage I and Stage II closure construction activities is provided as Table 4. A discussion of the closure and source water management plans for each affected outfall is presented in the following subsections.

4.1.1 Outfall 202 - Metals Pond

Dominion expects to commence with closure of the Metals Pond after the new West Treatment Pond is brought on-line, estimated to be on or about January 1, 2016.

Closure of the Metals Pond is proposed through a one-time pumping of decant water to the West Treatment Pond (after monitoring for compliance with Part 1A limits for outfall 202), followed by material removal and disposal at a permitted waste disposal facility. Contact stormwater and material dewatering water generated during closure activities will either be routed to the re-purposed West Ash Pond (*i.e.*, new West Treatment Pond) for discharge through outfall 002, or pumped-and-hauled for off-site disposal. If discharged via outfall 002, these source waters will be routed to the pre-treatment system, with enhanced treatment if necessary, to ensure compliance with the Part 1A limits for outfall 202, as well as compliance with the discharge limits at outfall 002. Construction non-contact stormwater will be discharged under a VSMP permit after decommissioning activities are complete until the area achieves stabilization. These options to manage Metals Pond contact stormwater and material dewatering water are summarized in the following table, as well as in Table 4 along with monitoring locations:

Metals Pond Water Source	Metals Pond Water Management Option
Contact stormwater and material dewatering water	Pump-and-haul off-site for disposal at a permitted facility
	Directly to a pre-treatment system with discharge of the treated water to the West Treatment Pond and discharge via outfall 002 (former West Ash Pond)

4.1.2 Outfall 002 - West Ash Pond

Closure activities for the West Ash Pond are expected to begin on or before October 19, 2015, with decanting completed by that date. As part of the closure activities, Dominion plans to clean-close the western section of the pond via CCR removal. The remaining eastern section of the pond will also be clean-closed via CCR removal, with this area re-purposed as the lined West Treatment Pond. Closure and re-purposing of the eastern portion of the West Ash Pond is expected to be complete by January 1, 2016. The closure of the western area of the West Ash Pond is expected to be completed on or before April 17, 2018.

In preparation for, and during, construction, contact stormwater will be discharged under the VPDES permit as presented herein, and construction non-contact stormwater will be discharged under a VSMP permit until final site stabilization is achieved. The influent water from the Stormwater Management Pond will be pre-treated (*i.e.*, filtered) and routed directly to outfall 002 during construction, or to the North Ash Pond's outfall 004. The influent water from the Metals Pond via outfall 202 will be eliminated.

Following re-routing of the Stormwater Management Pond discharge, contact stormwater from the West Ash Pond will be routed to the North Ash Pond with pre-treatment (*i.e.*, filtering) until approximately January 1, 2016 (Stage I activity). Contact stormwater from the remaining western portion of the West

Ash Pond during clean-closure will be routed to the re-purposed West Ash Pond (*i.e.*, new West Treatment Pond) with pre-treatment (*i.e.*, filtering). Construction non-contact stormwater will be discharged under a VSMP permit after CCR removal until the area achieves stabilization. Depending on site conditions, additional options to manage contact stormwater are proposed in the following table:

West Ash Pond Water Source	West Ash Pond Water Management Option
Contact stormwater and Ash Dewatering Water	Directly to a pre-treatment system with discharge of the treated water to outfall 004 via the north end of the North Ash Pond
	Directly to a pre-treatment system with discharge of the treated water to the West Treatment Pond and discharge via outfall 002 (former West Ash Pond)

4.1.3 Outfall 003 - East Ash Pond

Closure activities for the East Ash Pond are expected to begin on or before March 1, 2016, with ash dewatering initiated by January 1, 2016. Closure activities are expected to be completed on or before April 17, 2018. In preparation for, and during, construction of the closure cap, contact stormwater and ADW will be discharged under the VPDES permit as presented herein, and construction non-contact stormwater will be discharged under a VSMP permit until final site stabilization is achieved.

As with the North Ash Pond, dewatering will be required to stabilize the materials for the required closure activities. It is expected that the dewatering activities will be performed with a combination of gravity-based decantation and mechanically assisted dewatering means, possibly including well points and dewatering trenches. Once the East Ash Pond materials are sufficiently dewatered to support construction activities, the East Ash Pond will be closed in place by capping in accordance with solid waste regulatory requirements. The flow from the proposed horizontal toe drains on the East Ash Pond will be routed to the existing Stormwater Management Pond and discharged through outfall 002 in the same manner as the existing toe drains from the North Ash Pond.

Outfall 003 is expected to continue receiving non-contact stormwater discharges from the East Ash Pond until January 1, 2016, at which time ADW is expected to be generated. Once ADW is being generated, Outfall 003 will no longer receive flow unless it is specifically from the ADW pre-treatment system. Outfall 003 will physically be removed once it is no longer needed as a discharge point.

ADW will be pre-treated (filtered for TSS control) before being routed to the new, lined, West Treatment Pond (former West Ash Pond) and discharged via outfall 002. Depending on site conditions, additional options to manage contact stormwater and ADW are proposed in the following table:

East Ash Pond Water Source	East Ash Pond Water Management Option
Commingled Process and Contact Stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 006
	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the West Treatment Pond and discharge via outfall 002 (former West Ash Pond)

4.1.4 Outfall 204 - Stormwater Management Pond

Prior to the initiation of the closure activities for the West Ash Pond, outfall 204 from the Stormwater Management Pond will be re-routed from the West Ash Pond directly to outfall 002 and/or outfall 004. It is expected that the Stormwater Management Pond will discharge directly via outfall 002 and/or outfall 004 until the West Treatment Pond is placed on-line and connected to outfall 002, at which time outfall 204 will be re-activated with the discharge directed to the West Treatment Pond.

4.1.5 Outfall 004 - North Ash Pond

Closure activities for the North Ash Pond are expected to begin on or before March 1, 2016, with final decanting of the impoundment completed, followed by ash dewatering, initiated by January 1, 2016. Closure activities are to be completed on or before April 17, 2018. In preparation for, and during, construction of the closure cap, contact stormwater and ADW will be discharged under the VPDES permit as presented herein, and construction non-contact stormwater will be discharged under a VSMP permit until final site stabilization is achieved.

Dewatering the CCR in the North Ash Pond will be accomplished through a combination of gravity-based decantation and mechanically assisted dewatering means, possibly including additional well points and dewatering trenches. Once the North Ash Pond materials are sufficiently dewatered to support construction activities, the North Ash Pond will be closed in place by capping.

Outfall 004 will continue to receive IDW from the North Ash Pond until January 1, 2016, at which time ADW is expected to be generated. Once ADW is being generated, outfall 004 will no longer receive flow

unless it is specifically from the ADW pre-treatment system. Outfall 004 will physically be removed once it is no longer needed as a discharge point.

ADW will be pre-treated (filtered for TSS control) before being routed to the new, lined, West Treatment Pond (former West Ash Pond) and discharged via outfall 002. Depending on site conditions, additional options to manage contact stormwater and ADW are proposed in the following table:

North Ash Pond Water Source	North Ash Pond Water Management Options
Commingled Process and Contact Stormwater	Directly to a pre-treatment system with discharge of the treated water via outfall 006
	Directly to a pre-treatment system with discharge of the treated water via outfall 004
	Directly to a pre-treatment system with discharge of the treated water via outfall 003
	Directly to a pre-treatment system with discharge of the treated water via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the Stormwater Management Pond and discharge via outfall 002
	Directly to a pre-treatment system with discharge of the treated water to the West Treatment Pond and discharge via outfall 002 (former West Ash Pond)

4.2 Interim Period Conceptual Engineering Report

Based on the characteristics of the expected source waters that will be generated during the transitional construction period as represented by the results summarized in Table 2, a conceptual pre- and enhanced treatment system has been designed to attenuate elevated concentrations of selected analytes. The analytes of primary concern are TSS and certain metals.

As proposed, the pre-treatment system is designed to be flexible in operation such that wastewaters can be effectively managed and treated separately or in combination to the level necessary for compliance with permit requirements and surface water quality standards. The enhanced treatment system, if needed, will be constructed to manage up to 4.0 MGD on average, with a maximum capacity of 6.0 MGD, and will be operated as needed based on the characteristics of the source water(s) being managed at the time of the discharge. The conceptual pre-treatment system design has provisions for TSS control (filtration) for various source waters during construction as a minimum control measure. More advanced treatment will be used in conjunction with filtration as needed to meet VPDES permit limits.

4.2.1 Commingled Process and Contact Stormwater

At this time, it is expected that TSS controls (filtration) will be sufficient to meet permit limits for the commingled contact stormwater, ADW, and toe drain water generated during the Stages I and II construction activities. Accordingly, these source waters will be routed to one or more water treatment units for TSS control. Additional enhanced treatment would be utilized with these wastewaters if determined necessary to meet limits.

4.2.2 Ash Dewatering Water

The enhanced treatment option for source water generated during dewatering of the CCR for the North and East Ash Ponds during closure activities includes routing the source water to a mixing tank (Source Water) and then decanting to a polymerization tank for flocculent formation using gypsum, or National Science Foundation (NSF) certified anionic and/or cationic polymers, and/or coagulants as needed to attenuate the elevated TSS concentrations.

The treated source water will then be routed to a primary settling tank where settled/underflow solids from primary settling will be recovered, dewatered, and disposed of off-site in a solid waste facility permitted to accept the materials.

The overflow will decant to a pH buffering/aeration tank to assist with metals removal, if required, then will decant to a secondary settling tank with pH buffering as needed. The settled/underflow solids from the secondary settling tank will be recovered, dewatered, and disposed of off-site in a solid waste facility permitted to accept the materials.

The decant water from the secondary settling tank will be routed to a pH neutralization tank (pH buffering as needed) where it will then be discharged to one of the permitted outfalls or the Stormwater Management Pond.

To verify the operational efficiency of the pre-treatment system, the system will be monitored using a combination of monitoring equipment for turbidity (as a surrogate for TSS) and pH, with additional sampling performed between Stages I and II, and at the outfall(s), for constituents as required for VPDES permit compliance.

Additional or alternative enhanced treatment methods may be employed if determined necessary.

5.0 FINAL OPERATING CONDITION

The final operating conditions and discharge configurations that will exist at the Station following closure activities are described in this section. It is expected that final conditions for the Station will be in place no later than April 2018; however, certain outfalls will reach a final operating configuration prior to April 2018 as the closure activities are progressively completed. Details for the final operating configuration are summarized in the following sections.

5.1 Final Phase Process Flow

A conceptual process flow diagram for the post-construction water management configuration is presented on the One-line Diagram in Appendix III. As presented, because no additional CCR management water will be generated at that time, it is expected that the post-construction VPDES permit will no longer require any pre-treatment to meet permit limitations.

The closed North and East Ash Ponds, the western area of the former West Ash Pond, the decommissioned Metals Pond area, and the area inside of the Flood Wall will be operated as No Exposure areas with non-contact, no exposure stormwater discharges to new surface water outfalls (007 and 008). The STP discharge will continue to be routed to the Stormwater Management Pond via outfall 203, which in turn will be routed to the West Treatment Pond via outfall 204. The West Treatment Pond will discharge via outfall 002.

Specific operational descriptions for the outfalls that will be affected by the construction activities following completion of construction activities are presented in the following sections, and estimated flows for outfall 002 during the post-closure final phase operations are summarized in the following table.

Outfall/Pond	Water Type	Avg. Flow (MGD)	Max. Flow (MGD)
002 (West Treatment Pond)	CPSW	1.53	4.2912

Note: MGD = million gallons per day
CPSW = commingled process and contact stormwater

5.1.1 Outfall 008 - North and East Ash Ponds

Following the completion of closure activities on or before April 17, 2018, the North Ash Pond will be maintained as a No Exposure industrial area, with the post-construction (non-contact) stormwater discharged via a new surface water outfall (proposed outfall 008) on the southern side of the closed East Ash Pond (see Drawing 6). Outfall 008 will be the outlet from a dry stormwater detention area located in the southeast corner of the closed East Ash Pond. This area will be clean-closed of CCR material prior to constructing the dry detention area. Design information for outfall 008 includes the following:

Physical Location:
Latitude: N 037° 42' 17"
Longitude: W 078° 16' 47"

Drainage Area: 182.5 acres

Area description: The catchment post-construction ground cover condition is managed turf with a series of grass- and rip-rap-lined channels. Overland flow originates from the North Ash Pond's final cover system and is routed through a series of grass-lined channels that exit the North Ash Pond through a large box culvert located in the upper portion of the western abutment. Channel flow continues through a rip-rap-lined let-down channel on the western side of the North Ash Pond, which safely conveys runoff flows to the toe of slope and into the north perimeter drainage channel for the East Ash Pond. Runoff flows are directed through the East Ash Pond's northern perimeter drainage channel to the dry stormwater detention area prior to discharge. The dry stormwater detention area is located in the southeastern corner of the East Ash Pond. A proposed concrete riser and outlet structure drains the detention area to the existing natural channel adjacent to the existing CSX railroad embankment. The physical location of outfall 008 is the end of pipe of the dry stormwater detention outlet structure.

Additionally, after closure, the flow from the existing embankment toe drains on the North Ash Pond will continue to be routed to the existing Stormwater Management Pond for treatment and discharge through outfall 002.

5.1.2 Outfall 007 - East Ash Pond Perimeter Road Embankment

Following the completion of closure activities on or before April 17, 2018, the East Ash Pond will be maintained as a No Exposure industrial area, with the post-construction (non-contact) stormwater discharged via a new surface water outfall (proposed outfall 007) on the southern side of the closed East Ash Pond (see Drawing 6). Outfall 007 will be the outlet of a culvert beneath the southern East Ash Pond perimeter road embankment. Design information for outfall 007 includes the following:

Physical Location:
Latitude: N 037° 42' 21"
Longitude: W 078° 16' 57"

Drainage Area: 5.0 acres

Area description: The drainage area post-construction ground cover condition is managed turf with a series of grass- and rip-rap-lined channels. Overland flow originates from the East Ash Pond's final cover system and drains to a perimeter drainage channel on the inside of the East Ash Pond's southern perimeter road. Perimeter channel flow is drained through a concrete culvert that discharges to the

existing natural channel adjacent to the existing CSX railroad embankment. The physical location of outfall 007 is the end of culvert that drains from the perimeter road.

A toe drain will be installed during closure of the pond, and water that is captured by this system will be directed to the existing Stormwater Management Pond for treatment and discharge through outfall 002.

5.1.3 Outfall 002 - West Treatment Pond

Following removal of the CCR, the re-purposed eastern portion of the former West Ash Pond will be lined with a 60-mil flexible Ethylene Propylene Diene Monomer (EPDM) liner system and placed back in service on or before January 1, 2016, as the West Treatment Pond with a discharge via outfall 002. A Conceptual Engineering Report for the West Treatment Pond will be submitted to DEQ under separate cover.

Following the completion of the remaining West Ash Pond closure activities (western portion) on or before April 17, 2018, the clean-closed area will be maintained as a No Exposure industrial area, with the post-construction (non-contact) stormwater discharged under sheet flow conditions.

5.1.4 Outfall 204 - Stormwater Management Pond

Following closure of the West Ash Pond and construction of the new West Treatment Pond with its connection to outfall 002, outfall 204 will be re-routed to the West Treatment Pond.

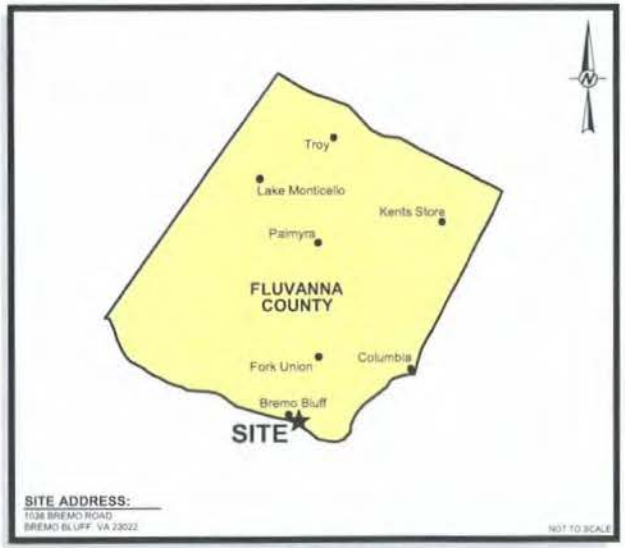
5.1.5 Outfall 202 - Metals Pond

Following completion of the Metals Pond closure activities on or before March 1, 2016, outfall 202 will be eliminated and the closed area will be maintained as a No Exposure industrial area, with the post-construction (non-contact) stormwater discharged under sheet flow conditions.

DRAWINGS

DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

FORK UNION MAGISTERIAL DISTRICT
FLUVANNA COUNTY, VIRGINIA
SEPTEMBER 2015



VICINITY MAP

SITE LOCATION MAP

SHEET LIST TABLE	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING OUTFALL LOCATION MAP
3	PROCESS FLOW DIAGRAM (EXISTING CONDITONS)
4	PROCESS FLOW DIAGRAM (STAGE I CONSTRUCTION) 2015 TIME FRAME
5	PROCESS FLOW DIAGRAM (STAGE II CONSTRUCTION) 2016-2018
6	PROPOSED OUTFALL LOCATION MAP

REFERENCE:

1. EXISTING CONDITIONS COMPILED FROM:
   a. AERIAL IMAGING PREPARED BY McKENZIE SNYDER, INC. DATE OF AERIAL PHOTO: 1/16/15 [CONTROL PREPARED BY H&B SURVEYING & MAPPING (H&B)]
   b. BOUNDARY SURVEY PREPARED BY H&B SURVEYING AND MAPPING, LLC DATED 04/27/15

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PREPARED BY: Golder Associates

PREPARED FOR: Dominion

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	REVIEW
1	09/30/15	PER DEQ COMMENTS	JRD	MEM	ATN	JRD

PROJECT: DOMINION BREMO POWER STATION CCR IMPOUNDMENT CLOSURE VPDES PERMIT APPLICATION AMENDMENT

TITLE: COVER SHEET

PROJECT No.		15-20347	FILE No. 1320347H01
DESIGN	JRD	06/27/15	SCALE AS SHOWN
CADD	ATN	06/27/15	DRAWING 1
CHECK	ATN	06/30/15	
REVIEW	JRD	06/30/15	

Golder Associates

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	09/30/15	PER DEQ COMMENTS	JRD	NM	ATN	JRD

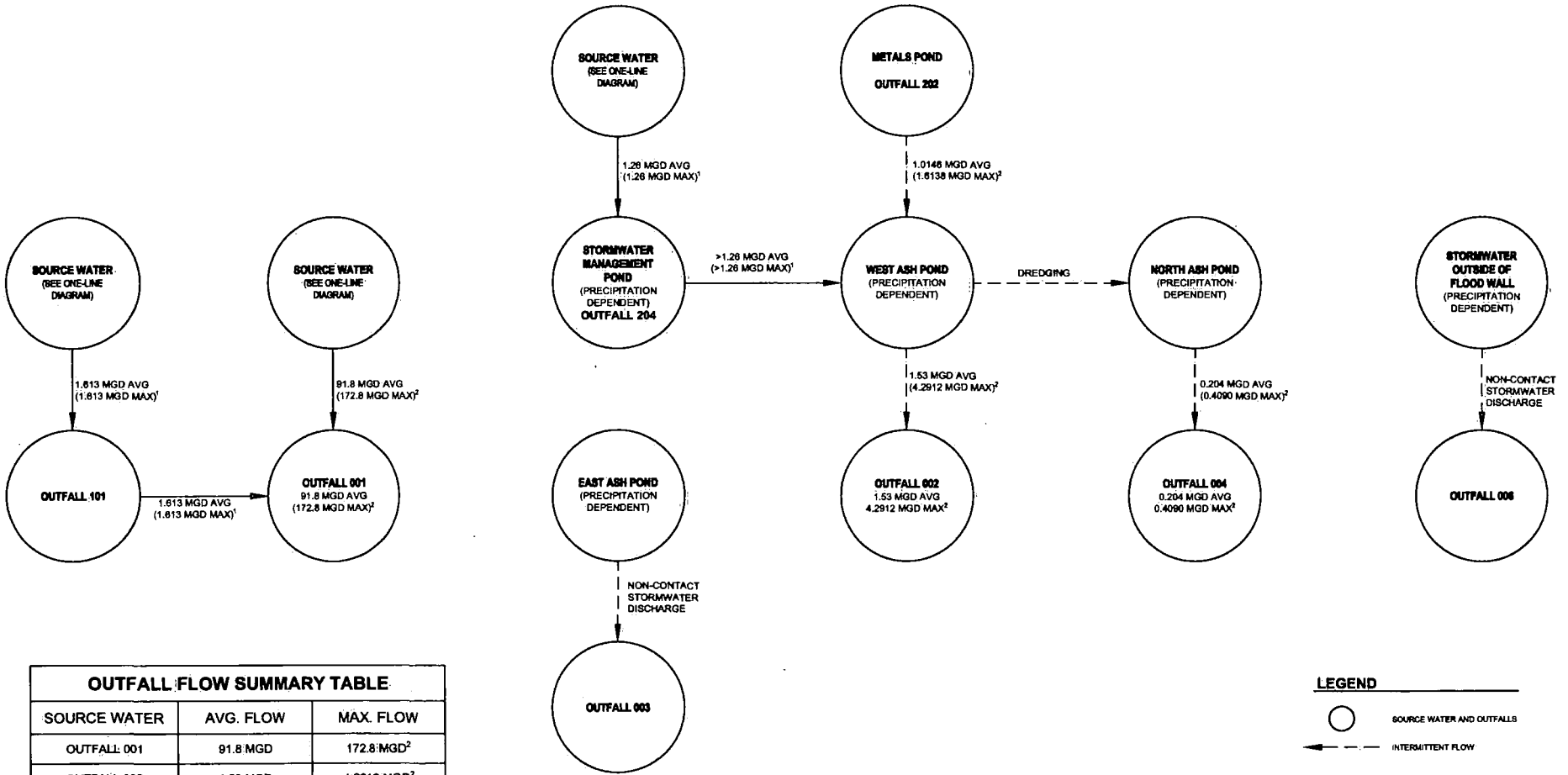
PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
EXISTING OUTFALL LOCATION MAP

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H02
DESIGN	JRD	09/27/15	SCALE	AS SHOWN
CADD	ATN	09/27/15		
CHECK	ATN	09/30/15		
REVIEW	JRD	09/30/15		

DRAWING 2



OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD	4.2912 MGD[2]
OUTFALL 004	0.204 MGD	0.4090 MGD[2]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE STORMWATER MANAGEMENT POND ARE INCLUDED IN THE FLOWS IDENTIFIED FOR THE WEST ASH POND.
6. MAXIMUM FLOWS FROM THE NORTH ASH POND WERE ASSUMED TO BE THE MAXIMUM FLOWS FROM THE WEST ASH POND DURING DREDGING.

LEGEND

SOURCE WATER AND OUTFALLS

INTERMITTENT FLOW

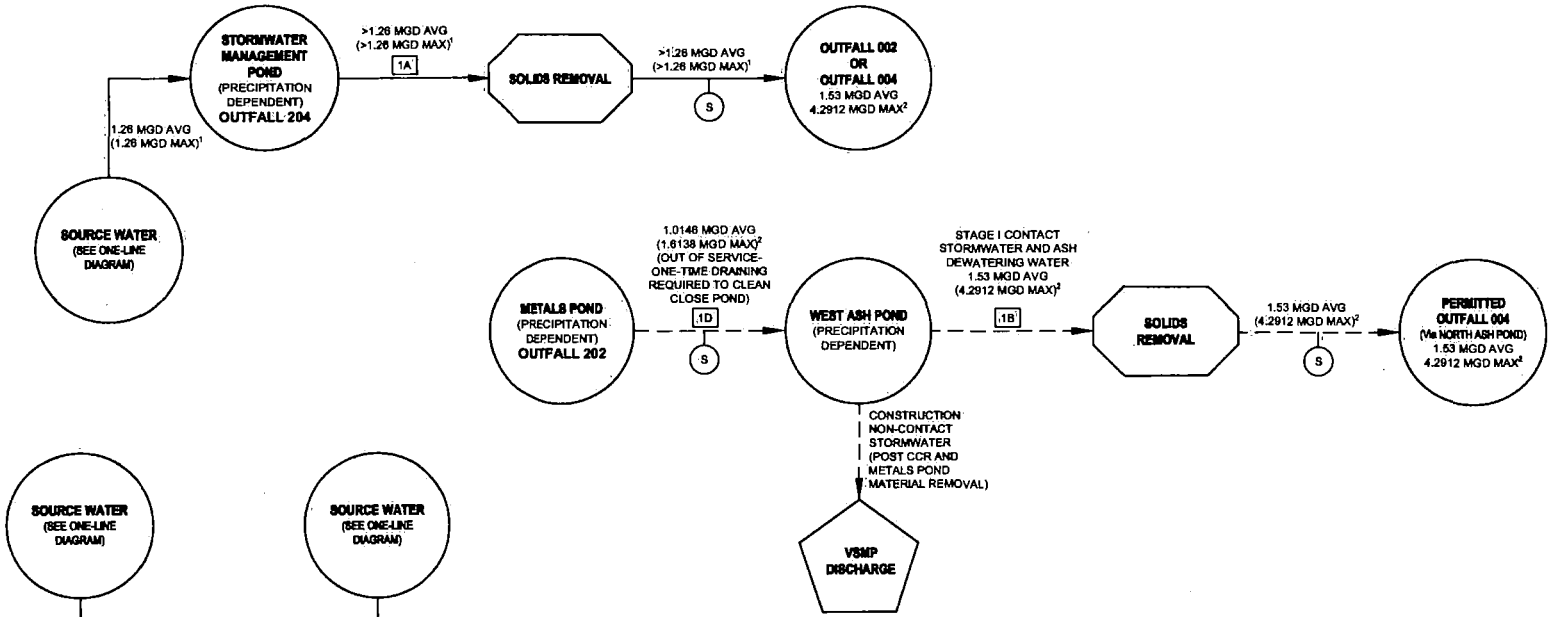
REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	08/27/15	PER DEQ COMMENTS	JRD	ASM	ATN	JRD

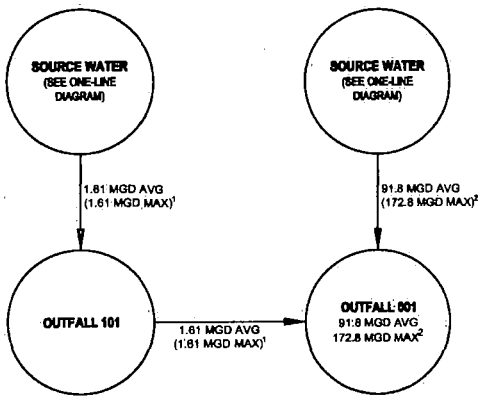
PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

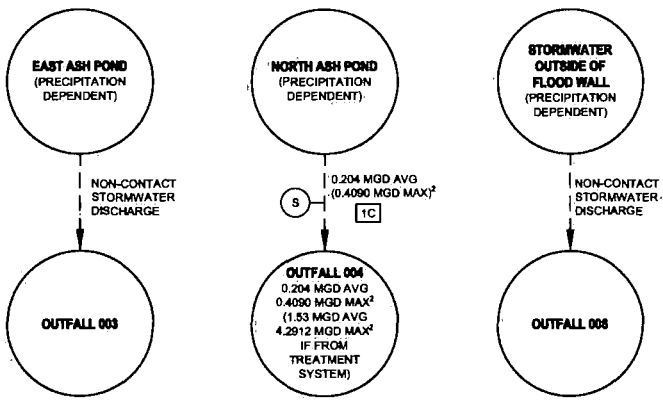
TITLE
PROCESS FLOW DIAGRAM (EXISTING CONDITIONS)

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	08/27/15	SCALE	AS SHOWN
CADD	ATN	08/27/15		
CHECK	ATN	08/30/15	DRAWING 3	
REVIEW	JRD	08/30/15		







OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD	4.2912 MGD[2]
OUTFALL 004	0.204 MGD/1.53 MGD	0.4090 MGD[2]/4.2912 MGD[2]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE METALS POND ARE INCLUDED IN THE FLOWS IDENTIFIED FOR THE WEST ASH POND.
6. FLOWS FROM OUTFALL 004 WILL INCREASE AS SHOWN IF FLOWS FROM THE TREATMENT SYSTEM ARE INCLUDED.

LEGEND

- VIRGINIA STORMWATER MANAGEMENT PROGRAM
- SOURCE WATER AND OUTFALLS
- SOLIDS REMOVAL
- 1A TABLE 4 REFERENCE
- S SAMPLING LOCATION
- INTERMITTENT FLOW

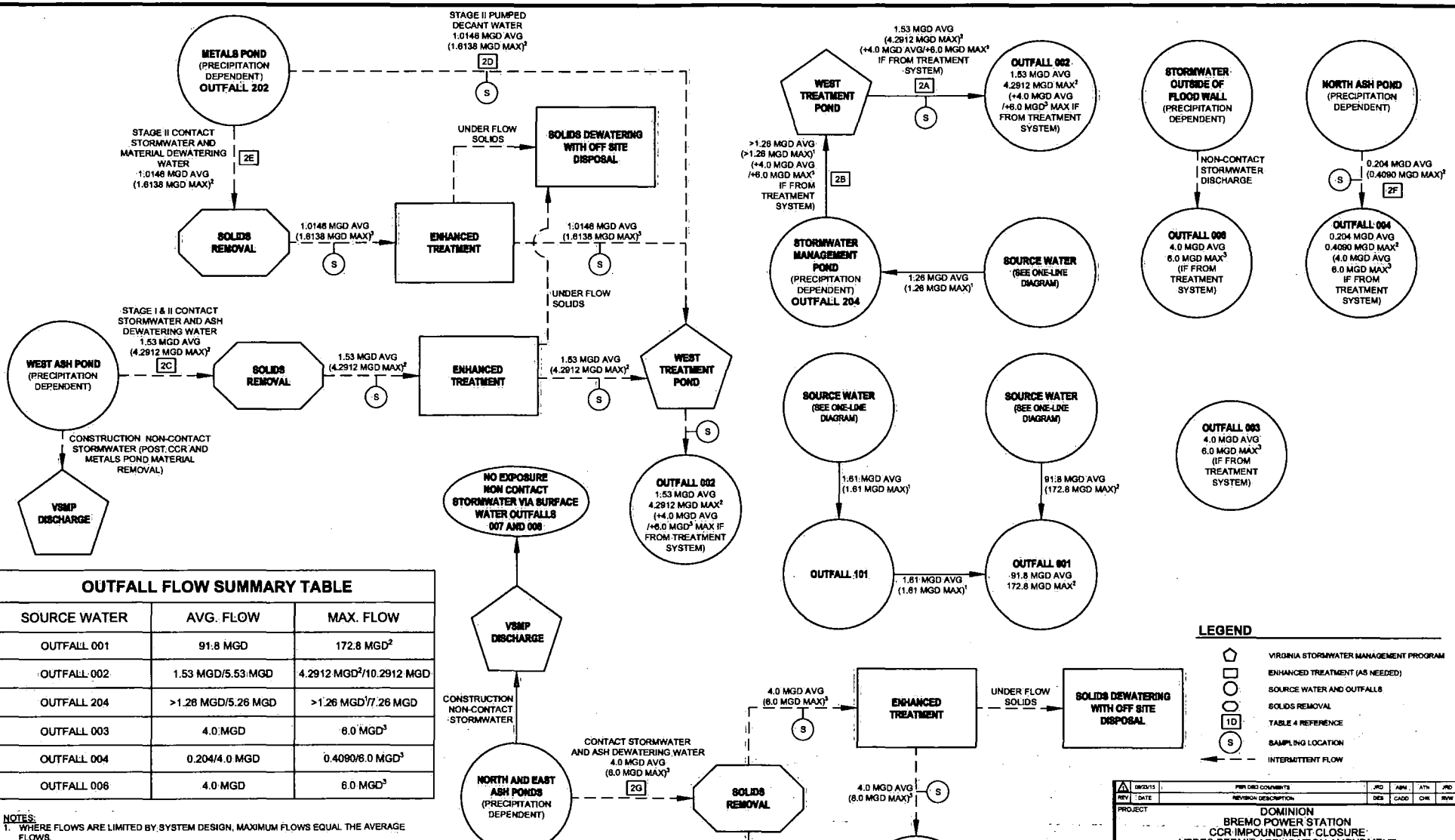
REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	08/23/15	PER DEQ COMMENTS	JRD	ABM	ATN	JRD

PROJECT: DOMINION BREMO POWER STATION CCR IMPOUNDMENT CLOSURE VPDES PERMIT APPLICATION AMENDMENT

TITLE: PROCESS FLOW DIAGRAM (STAGE I CONSTRUCTION) 2015 TIME FRAME

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 4	
REVIEW	JRD	06/30/15		



OUTFALL FLOW SUMMARY TABLE

SOURCE WATER	AVG. FLOW	MAX. FLOW
OUTFALL 001	91.8 MGD	172.8 MGD[2]
OUTFALL 002	1.53 MGD/5.53 MGD	4.2912 MGD[2]/10.2912 MGD
OUTFALL 204	>1.26 MGD/5.26 MGD	>1.26 MGD[1]/7.26 MGD
OUTFALL 003	4.0 MGD	6.0 MGD[3]
OUTFALL 004	0.204/4.0 MGD	0.4090/6.0 MGD[3]
OUTFALL 006	4.0 MGD	6.0 MGD[3]

NOTES:
1. WHERE FLOWS ARE LIMITED BY SYSTEM DESIGN, MAXIMUM FLOWS EQUAL THE AVERAGE FLOWS.
2. IF THE MAXIMUM FLOWS ARE LISTED IN THE PERMIT, THOSE FLOWS WERE USED.
3. WHERE FLOWS ARE NOT LIMITED BY SYSTEM DESIGN AND MAXIMUM FLOWS WERE NOT LISTED IN THE PERMIT, MAXIMUM FLOWS WERE CALCULATED BY MULTIPLYING THE AVERAGE FLOWS BY A FACTOR OF 1.5.
4. FLOWS FROM OUTFALL 101 ARE INCLUDED IN THE FLOWS IDENTIFIED FOR OUTFALL 001.
5. FLOWS FROM THE STORMWATER MANAGEMENT POND ARE INCLUDED IN THE FLOWS FROM THE WEST TREATMENT POND.
6. FLOWS FROM THE METALS POND ARE INCLUDED IN THE FLOWS FROM THE WEST TREATMENT POND.
7. FLOWS FROM OUTFALL 002, 003, 004, AND 006 WILL INCREASE AS SHOWN IF FLOWS FROM THE NORTH AND EAST ASH POND TREATMENT SYSTEM ARE INCLUDED.

LEGEND

- VIRGINIA STORMWATER MANAGEMENT PROGRAM
- ENHANCED TREATMENT (AS NEEDED)
- SOURCE WATER AND OUTFALLS
- SOLIDS REMOVAL
- 1D TABLE 4 REFERENCE
- S SAMPLING LOCATION
- INTERMITTENT FLOW

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	06/30/15	PER DEQ COMMENTS	JRD	ATN	ATN	JRD

PROJECT: DOMINION BREMO POWER STATION CCR IMPOUNDMENT CLOSURE VPDES PERMIT APPLICATION AMENDMENT

TITLE: **PROCESS FLOW DIAGRAM (STAGE II CONSTRUCTION) 2016-2018 TIME FRAME**

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H03-05
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 5	
REVIEW	JRD	06/30/15		

SAMPLING LOCATIONS	
OUTFALL	DESCRIPTION
001	END OF PIPE
002	WIER OF RISER
203	STP WIER

NO	DATE	REVISION DESCRIPTION	DES	CADD	CHK	REVIEW
1	06/30/15	PER DEQ COMMENTS	JRD	ABW	ATN	JRD

PROJECT:
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE:
PROPOSED OUTFALL LOCATION MAP

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H06
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	**DRAWING 6**	
REVIEW	JRD	06/30/15		

TABLES

Table 1
Summary of Process Water Characterization Analyses
Bremo Power Station

Sample Date	Location	Orignial list													EPA Form C					DEQ Attachment A														
		Alkalinity	Fluoride	Nitrate/Nitrite	Oil & Grease	Radium 226 & 228	Ammonia	Sulfate	TDS	BOD	TSS	Metals	Hex. Chromium	Mercury	COD	TOC	Bromide	TKN	Phosphorous, Total	Metals	Mercury, dissolved	Hex. Chromium, dissolved	Pesticides/PCBs	Base Neutral Extractables	Volatiles	Acid Extractables	Ammonia as NH3-N	Chloride	FIELD - Total Residual Chlorine	Cyanide, Free	E. Coli / Enterococcus	Sulfide, dissolved	Tributyltin	Hardness
		E310.2	E300	E353.2	E1664B	E903.1/SW9320	EPA350.1	E300	SM2540D	SM5210B	SM2540D	SW6010C/SW6020A	SM3500	SW7470	SM5220	SM5310C	EPA300	EPA351.2	SM4500	EPA200.7/200.8	EPA245.1		EPA625/622/614	EPA625	EPA624	EPA625/ASTM D7065-06	EPA350.1	EPA300	FIELD	SM4500	Colilert 18 QT/Enterolert	HACH8131		SM2340B
3/31/2015	PZ-1 (North Pond)	X	X	X	X	X	X	X	X	X	X	X		X														X						
	PZ-2 (East Pond)	X	X	X	X	X	X	X	X	X	X	X		X														X						
4/15/2015	PZ-1 (North Pond)	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
	PZ-2 (East Pond)	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
	Metals Pond			X	X	X	X	X	X		X	X	X	X			X	X	X									X						
	SWM Pond			X	X	X	X	X	X		X	X	X	X			X	X	X									X						
	North Pond Toe Drain	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X									X						X
5/21/2015	PZ-1 (North Pond)	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PZ-2 (East Pond)	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Metals Pond	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	SWM Pond	X	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6/4/2015	PZ-1 (North Pond)														X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PZ-2 (East Pond)														X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Metals Pond	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	SWM Pond	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	North Pond Toe Drain	X	X			X				X					X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6/16/2015	North Pond Toe Drain			X	X			X	X		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Parameter	Sample Date	Method					
Bacteria (mpn/100ml)							
Entrococci	05/21/2015	Enterolert	8	18	--	156	8
Entrococci	06/04/2015	Enterolert	34	73	1	921	12
Entrococci	06/16/2015	Enterolert	--	--	< 1	--	--
Escherichia coli	01/20/2015	SM9223F	--	--	--	--	30
Escherichia coli	05/21/2015	COLILERT-18 QT	< 1	< 1	--	261	4
Escherichia coli	06/04/2015	COLILERT-18 QT	4	< 1	< 1	613	23
Escherichia coli	06/16/2015	COLILERT-18 QT	--	--	< 1	--	--
Dissolved Metals (ug/L)							
Aluminum	01/20/2015	SM3111B	--	--	--	--	< 130
Aluminum	03/31/2015	SW6010C	78.3	61.2	--	--	--
Aluminum	04/15/2015	SW6010C	166	47.8	163	--	--
Aluminum	05/21/2015	E200.7	26.8	20.3	--	< 20.0	28.8
Aluminum	06/04/2015	E200.7	41.4	38.6	< 20.0	< 20.0	< 20.0
Aluminum	06/16/2015	E200.7	--	--	< 20.0	--	--
Antimony	01/20/2015	SM3113B	--	--	--	--	< 1
Antimony	03/31/2015	SW6020A	15.0	21.4	--	--	--
Antimony	04/15/2015	SW6020A	13.7	--	0.378	--	--
Antimony	05/21/2015	E200.8	2.53	11.1	--	< 0.110	0.615
Antimony	06/04/2015	E200.8	3.54	9.41	< 0.110	< 0.110	0.230
Antimony	06/16/2015	E200.8	--	--	< 0.110	--	--
Arsenic	01/20/2015	SM3113B	--	--	--	--	< 2
Arsenic	03/31/2015	SW6010C	103	30.6	--	--	--
Arsenic	04/15/2015	SW6010C	211	69.1	< 6.80	< 6.80	< 6.80
Arsenic	05/21/2015	E200.8	453	604	--	1.89	5.90
Arsenic	05/21/2015	E200.9	--	28.8	--	--	--
Arsenic	06/04/2015	E200.8	318	29.5	< 0.610	2.57	3.18
Arsenic	06/04/2015	E200.9	--	345	--	--	--
Arsenic	06/16/2015	E200.8	--	--	< 0.610	--	--
Barium	01/20/2015	SM3113B	--	--	--	--	39
Barium	03/31/2015	SW6010C	224	617	--	--	--
Barium	04/15/2015	SW6010C	648	788	109	--	--
Barium	05/21/2015	E200.7	637	742	--	55.9	117
Barium	06/04/2015	E200.7	598	629	13.9	47.6	96.8
Barium	06/16/2015	E200.7	--	--	13.7	--	--
Beryllium	01/20/2015	SM3113B	--	--	--	--	< 0.2
Beryllium	03/31/2015	SW6010C	< 0.100	< 0.100	--	--	--
Beryllium	04/15/2015	SW6010C	< 0.100	< 0.100	< 0.100	--	--
Beryllium	05/21/2015	E200.7	< 2.0	< 2.0	--	< 2.0	< 2.0
Beryllium	06/04/2015	E200.7	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Beryllium	06/16/2015	E200.7	--	--	< 2.0	--	--
Boron	03/31/2015	SW6010C	1290	2420	--	--	--
Boron	04/15/2015	SW6010C	2880	2310	390	230	428
Boron	05/21/2015	E200.7	1590	1580	--	229	414
Boron	06/04/2015	E200.7	1700	1610	789	246	258
Boron	06/16/2015	E200.7	--	--	803	--	--
Cadmium	01/20/2015	SM3113B	--	--	--	--	< 0.3
Cadmium	03/31/2015	SW6010C	< 0.360	< 0.360	--	--	--
Cadmium	04/15/2015	SW6010C	< 0.360	< 0.360	< 0.360	< 0.360	< 0.360

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Cadmium	05/21/2015	E200.8	< 2.20	**7.05**	--	< 0.110	< 0.110
Cadmium	06/04/2015	E200.8	**0.120**	**0.125**	< 0.110	< 0.110	< 0.110
Cadmium	06/16/2015	E200.8	--	--	< 0.110	--	--
Calcium	03/31/2015	SW6010C	**53500**	**117000**	--	--	--
Calcium	04/15/2015	SW6010C	**126000**	**142000**	**32100**	**119000**	**36500**
Calcium	05/21/2015	E200.7	**118000**	**115000**	--	**112000**	**34300**
Calcium	06/04/2015	E200.7	**1180**	**110000**	**31400**	**121000**	**29100**
Calcium	06/16/2015	E200.7	--	--	**20800**	--	--
Chromium	01/20/2015	E200.7	--	--	--	--	< 10
Chromium	01/20/2015	SM3113B	--	--	--	--	< 10
Chromium	03/31/2015	SW6010C	< 1.00	**1.05**	--	--	--
Chromium	04/15/2015	SW6010C	**1.15**	< 1.00	< 1.00	< 1.00	< 1.00
Chromium	05/21/2015	E200.8	< 9.00	**223**	--	< 0.450	< 0.450
Chromium	06/04/2015	E200.8	< 0.450	< 4.50	< 0.450	< 0.450	< 0.450
Chromium	06/16/2015	E200.8	--	--	< 0.450	--	--
Chromium (III)	05/21/2015	CALC	< 10	**223**	--	< 10	< 10
Chromium (III)	06/04/2015	CALC	< 10	< 10	< 10	< 10	< 10
Chromium (III)	06/16/2015	CALC	--	--	< 5	--	--
Cobalt	01/20/2015	SM3113B	--	--	--	--	< 0.6
Cobalt	03/31/2015	SW6010C	**1.58**	**3.90**	--	--	--
Cobalt	04/15/2015	SW6010C	**2.62**	**4.55**	< 1.10	--	--
Cobalt	05/21/2015	E200.7	< 2.0	**20.0**	--	< 2.0	< 2.0
Cobalt	06/04/2015	E200.7	< 2.0	**3.4**	< 2.0	< 2.0	< 2.0
Cobalt	06/16/2015	E200.7	--	--	< 2.0	--	--
Copper	01/20/2015	SM3113B	--	--	--	--	**6**
Copper	03/31/2015	SW6010C	**1.82**	**1.91**	--	--	--
Copper	04/15/2015	SW6010C	**2.51**	**2.01**	**2.25**	**4.36**	**4.44**
Copper	05/21/2015	E200.8	< 4.40	**773**	--	**2.29**	**1.51**
Copper	05/21/2015	E200.9	--	**3.5**	--	--	--
Copper	06/04/2015	E200.8	**2.41**	**2.30**	**0.344**	**1.92**	**2.02**
Copper	06/04/2015	E200.9	--	**433**	--	--	--
Copper	06/16/2015	E200.8	--	--	**0.724**	--	--
Hexavalent Chromium	01/20/2015	SM3500-CR-B	--	--	--	--	< 5
Hexavalent Chromium	05/21/2015	SM3500-CR-B	< 5	< 5	--	< 5	< 5
Hexavalent Chromium	06/04/2015	SM3500-CR-B	< 5	< 5	< 5	< 5	< 5
Hexavalent Chromium	06/16/2015	SM3500-CR-B	--	--	< 5	--	--
Iron	01/20/2015	SM3111B	--	--	--	--	**60**
Iron	03/31/2015	SW6010C	**44.8**	**196**	--	--	--
Iron	04/15/2015	SW6010C	**57.4**	< 22.0	**601**	< 22.0	**160**
Iron	05/21/2015	E200.7	< 3.0	< 3.0	--	**7.4**	**4.5**
Iron	06/04/2015	E200.7	**3.0**	< 3.0	**8.9**	< 3.0	< 3.0
Iron	06/16/2015	E200.7	--	--	**5.7**	--	--
Lead	01/20/2015	SM3113B	--	--	--	--	< 1
Lead	03/31/2015	SW6010C	< 3.10	< 3.10	--	--	--
Lead	04/15/2015	SW6010C	< 3.10	< 3.10	< 3.10	< 3.10	< 3.10
Lead	05/21/2015	E200.8	< 3.20	**52.7**	--	< 0.160	< 0.160
Lead	06/04/2015	E200.8	< 0.160	**0.185**	< 0.160	< 0.160	< 0.160
Lead	06/16/2015	E200.8	--	--	< 0.160	--	--
Lithium	03/31/2015	SW6010C	**249**	**305**	--	--	--
Lithium	04/15/2015	SW6010C	**454**	**340**	**5.53**	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Lithium	05/21/2015	SW6010C	--	--	--	< 1.2	< 1.2
Lithium	06/04/2015	SW6010C	68	520	< 1.2	370	< 1.2
Lithium	06/16/2015	SW6010C	--	--	< 1.2	--	--
Magnesium	01/20/2015	SM3111B	--	--	--	--	4450
Magnesium	03/31/2015	SW6010C	14400	27300	--	--	--
Magnesium	04/15/2015	SW6010C	32600	24700	13400	4240	11300
Magnesium	05/21/2015	E200.7	25800	19800	--	4120	10600
Magnesium	06/04/2015	E200.7	25400	22400	6640	4640	8130
Magnesium	06/16/2015	E200.7	--	--	6830	--	--
Manganese	01/20/2015	SM3111B	--	--	--	--	40
Manganese	03/31/2015	SW6010C	358	231	--	--	--
Manganese	04/15/2015	SW6010C	886	438	220	9.78	49.1
Manganese	05/21/2015	E200.7	876	873	--	< 2.0	< 2.0
Manganese	06/04/2015	E200.7	20.5	138	< 2.0	< 2.0	< 2.0
Manganese	06/16/2015	E200.7	--	--	< 2.0	--	--
Mercury	01/20/2015	SM3112B	--	--	--	--	< 0.02
Mercury	03/31/2015	SW7470A	< 0.170	< 0.170	--	--	--
Mercury	04/15/2015	SW7470A	< 0.170	< 0.170	< 0.170	< 0.170	< 0.170
Mercury	05/21/2015	E245.1	< 0.023	< 0.023	--	< 0.023	< 0.023
Mercury	06/04/2015	E245.1	< 0.023	< 0.023	< 0.023	< 0.023	< 0.023
Mercury	06/16/2015	E245.1	--	--	< 0.023	--	--
Molybdenum	01/20/2015	SM3113B	--	--	--	--	7
Molybdenum	03/31/2015	SW6010C	232	93.6	--	--	--
Molybdenum	04/15/2015	SW6010C	313	58.6	< 2.50	--	--
Molybdenum	05/21/2015	E200.7	83.9	< 50.0	--	< 50.0	< 50.0
Molybdenum	06/04/2015	E200.7	98.5	< 50.0	< 50.0	< 50.0	< 50.0
Molybdenum	06/16/2015	E200.7	--	--	< 50.0	--	--
Nickel	01/20/2015	SM3113B	--	--	--	--	< 5
Nickel	03/31/2015	SW6010C	4.49	14.2	--	--	--
Nickel	04/15/2015	SW6010C	14.6	15.3	7.10	14.4	8.60
Nickel	05/21/2015	E200.8	< 6.40	187	--	9.50	1.44
Nickel	06/04/2015	E200.8	3.47	28.2	0.528	25.9	1.44
Nickel	06/16/2015	E200.8	--	--	0.327	--	--
Potassium	03/31/2015	SW6010C	9710	14200	--	--	--
Potassium	04/15/2015	SW6010C	12600	15500	1850	--	--
Potassium	05/21/2015	E200.7	10500	14400	--	29700	3360
Potassium	06/04/2015	E200.7	9840	14200	1010	27200	3290
Potassium	06/16/2015	E200.7	--	--	1010	--	--
Selenium	01/20/2015	SM3113B	--	--	--	--	< 2
Selenium	03/31/2015	SW6010C	< 5.00	< 5.00	--	--	--
Selenium	04/15/2015	SW6010C	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Selenium	05/21/2015	E200.8	< 13.0	< 19.5	--	3.36	< 0.650
Selenium	06/04/2015	E200.8	< 0.650	7.24	< 0.650	5.29	< 0.650
Selenium	06/16/2015	E200.8	--	--	< 0.650	--	--
Silver	01/20/2015	SM3113B	--	--	--	--	< 0.1
Silver	03/31/2015	SW6020A	< 0.100	< 0.100	--	--	--
Silver	04/15/2015	SW6010C	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90
Silver	05/21/2015	E200.8	< 0.580	< 0.870	--	< 0.029	< 0.029
Silver	06/04/2015	E200.8	< 0.029	< 0.029	< 0.029	< 0.029	< 0.029
Silver	06/16/2015	E200.8	--	--	< 0.029	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Sodium	03/31/2015	SW6010C	**79600**	**12200**	--	--	--
Sodium	04/15/2015	SW6010C	**41800**	**10400**	**20000**	--	--
Sodium	05/21/2015	E200.7	**16100**	**9250**	--	**9620**	**19300**
Sodium	06/04/2015	E200.7	**14400**	**9240**	**21500**	**9580**	**14900**
Sodium	06/16/2015	E200.7	--	--	**21600**	--	--
Sulfide	05/21/2015	H8131	< 6	< 6	--	< 6	< 6
Sulfide	06/04/2015	H8131	< 6	< 6	< 6	< 6	< 6
Sulfide	06/16/2015	H8131	--	--	< 6	--	--
Thallium	01/20/2015	E279.2	--	--	--	--	< 0.3
Thallium	03/31/2015	SW6020A	**0.531**	**0.531**	--	--	--
Thallium	04/15/2015	SW6020A	**0.345**	--	< 0.110	**0.141**	< 0.110
Thallium	05/21/2015	E200.8	< 1.16	**19.3**	--	< 0.058	**0.061**
Thallium	06/04/2015	E200.8	**0.442**	**2.08**	< 0.058	< 0.058	< 0.058
Thallium	06/16/2015	E200.8	--	--	< 0.058	--	--
Vanadium	03/31/2015	SW6010C	**76.1**	**121**	--	--	--
Vanadium	04/15/2015	SW6010C	**88.8**	**186**	< 1.40	--	--
Vanadium	05/21/2015	E200.7	**30.1**	**134**	--	< 2.0	< 2.0
Vanadium	06/04/2015	E200.7	**22.4**	**291**	< 2.0	< 2.0	< 2.0
Vanadium	06/16/2015	E200.7	--	--	< 2.0	--	--
Zinc	01/20/2015	SM3111B	--	--	--	--	< 10
Zinc	03/31/2015	SW6010C	< 3.80	< 3.80	--	--	--
Zinc	04/15/2015	SW6010C	**4.99**	**3.85**	< 3.80	< 3.80	< 3.80
Zinc	05/21/2015	E200.8	< 32.0	**284**	--	**3.70**	**1.90**
Zinc	06/04/2015	E200.8	**2.89**	< 16.0	**2.05**	**4.46**	**1.70**
Zinc	06/16/2015	E200.8	--	--	**7.62**	--	--
PCBs (ug/L)							
Aroclor 1016	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1016	05/21/2015	E608	< 0.03	< 0.03	--	< 0.03	< 0.03
Aroclor 1016	06/04/2015	E608	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Aroclor 1016	06/16/2015	E608	--	--	< 0.03	--	--
Aroclor 1221	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1221	05/21/2015	E608	< 0.2	< 0.2	--	< 0.2	< 0.2
Aroclor 1221	06/04/2015	E608	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Aroclor 1221	06/16/2015	E608	--	--	< 0.2	--	--
Aroclor 1232	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1232	05/21/2015	E608	< 0.02	< 0.02	--	< 0.02	< 0.02
Aroclor 1232	06/04/2015	E608	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1232	06/16/2015	E608	--	--	< 0.02	--	--
Aroclor 1242	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1242	05/21/2015	E608	< 0.05	< 0.04	--	< 0.05	< 0.04
Aroclor 1242	06/04/2015	E608	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Aroclor 1242	06/16/2015	E608	--	--	< 0.04	--	--
Aroclor 1248	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1248	05/21/2015	E608	< 0.05	< 0.05	--	< 0.06	< 0.05
Aroclor 1248	06/04/2015	E608	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aroclor 1248	06/16/2015	E608	--	--	< 0.05	--	--
Aroclor 1254	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1254	05/21/2015	E608	< 0.04	< 0.04	--	< 0.04	< 0.04
Aroclor 1254	06/04/2015	E608	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04

Table 2
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Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Aroclor 1254	06/16/2015	E608	--	--	< 0.04	--	--
Aroclor 1260	01/20/2015	E608	--	--	--	--	< 0.6
Aroclor 1260	05/21/2015	E608	< 0.04	< 0.03	--	< 0.04	< 0.04
Aroclor 1260	06/04/2015	E608	< 0.03	< 0.04	< 0.03	< 0.04	< 0.04
Aroclor 1260	06/16/2015	E608	--	--	< 0.04	--	--
Pesticides (ug/L)							
4,4-DDD	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDD	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDD	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDD	06/16/2015	E608	--	--	< 0.005	--	--
4,4-DDE	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDE	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDE	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDE	06/16/2015	E608	--	--	< 0.005	--	--
4,4-DDT	01/20/2015	E608	--	--	--	--	< 0.057
4,4-DDT	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
4,4-DDT	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
4,4-DDT	06/16/2015	E608	--	--	< 0.005	--	--
Aldrin	01/20/2015	E608	--	--	--	--	< 0.057
Aldrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Aldrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Aldrin	06/16/2015	E608	--	--	< 0.005	--	--
alpha-BHC	01/20/2015	E608	--	--	--	--	< 0.057
alpha-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-BHC	06/16/2015	E608	--	--	< 0.005	--	--
alpha-Chlordane	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-Chlordane	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-Chlordane	06/16/2015	E608	--	--	< 0.005	--	--
alpha-Endosulfan	01/20/2015	E608	--	--	--	--	< 0.057
alpha-Endosulfan	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
alpha-Endosulfan	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
alpha-Endosulfan	06/16/2015	E608	--	--	< 0.005	--	--
Azinphos-methyl	01/20/2015	E622	--	--	--	--	< 1
Azinphos-methyl	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Azinphos-methyl	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Azinphos-methyl	06/16/2015	E622	--	--	< 2.1	--	--
beta-BHC	01/20/2015	E608	--	--	--	--	< 0.057
beta-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
beta-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
beta-BHC	06/16/2015	E608	--	--	< 0.005	--	--
beta-Endosulfan	01/20/2015	E608	--	--	--	--	< 0.057
beta-Endosulfan	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
beta-Endosulfan	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
beta-Endosulfan	06/16/2015	E608	--	--	< 0.005	--	--
Chlordane	01/20/2015	E608	--	--	--	--	< 0.227
Chlordane	05/21/2015	E608	< 0.222	< 0.202	--	< 0.235	< 0.208

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Chlordane	06/04/2015	E608	< 0.200	< 0.215	< 0.204	< 0.206	< 0.213
Chlordane	06/16/2015	E608	--	--	< 0.206	--	--
Chlorpyrifos	01/20/2015	E622	--	--	--	--	< 0.2
Chlorpyrifos	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Chlorpyrifos	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Chlorpyrifos	06/16/2015	E622	--	--	< 2.1	--	--
delta-BHC	01/20/2015	E608	--	--	--	--	< 0.057
delta-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
delta-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
delta-BHC	06/16/2015	E608	--	--	< 0.005	--	--
Demeton, Total	01/20/2015	E614	--	--	--	--	< 1
Demeton, Total	05/21/2015	E614	< 0.093	< 0.093	--	< 0.093	< 0.093
Demeton, Total	06/04/2015	E614	< 0.093	< 0.093	< 0.093	< 0.093	< 0.093
Demeton-O	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Demeton-O	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Demeton-O	06/16/2015	E622	--	--	< 2.1	--	--
Demeton-S	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Demeton-S	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Demeton-S	06/16/2015	E622	--	--	< 2.1	--	--
Diazinon	01/20/2015	E614	--	--	--	--	< 1
Diazinon	05/21/2015	E614	< 0.031	< 0.031	--	< 0.031	< 0.031
Diazinon	05/21/2015	E622	< 2.1	< 2.3	--	< 2.5	< 2.1
Diazinon	06/04/2015	E614	< 0.031	< 0.031	< 0.031	< 0.031	< 0.031
Diazinon	06/04/2015	E622	< 2.3	< 2.5	< 2.0	< 2.0	< 2.1
Diazinon	06/16/2015	E622	--	--	< 2.1	--	--
Dieldrin	01/20/2015	E608	--	--	--	--	< 0.057
Dieldrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Dieldrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Dieldrin	06/16/2015	E608	--	--	< 0.005	--	--
Endosulfan Sulfate	01/20/2015	E608	--	--	--	--	< 0.057
Endosulfan Sulfate	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endosulfan Sulfate	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endosulfan Sulfate	06/16/2015	E608	--	--	< 0.005	--	--
Endrin	01/20/2015	E608	--	--	--	--	< 0.057
Endrin	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endrin	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endrin	06/16/2015	E608	--	--	< 0.005	--	--
Endrin Aldehyde	01/20/2015	E608	--	--	--	--	< 0.057
Endrin Aldehyde	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Endrin Aldehyde	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Endrin Aldehyde	06/16/2015	E608	--	--	< 0.005	--	--
gamma-BHC	01/20/2015	E608	--	--	--	--	< 0.057
gamma-BHC	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
gamma-BHC	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
gamma-BHC	06/16/2015	E608	--	--	< 0.005	--	--
Heptachlor	01/20/2015	E608	--	--	--	--	< 0.057
Heptachlor	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
Heptachlor	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor	06/16/2015	E608	--	--	< 0.005	--	--
Heptachlor Epoxide	01/20/2015	E608	--	--	--	--	< 0.057
Heptachlor Epoxide	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Heptachlor Epoxide	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Heptachlor Epoxide	06/16/2015	E608	--	--	< 0.005	--	--
Malathion	01/20/2015	E614	--	--	--	--	< 1
Malathion	05/21/2015	E614	< 0.074	< 0.074	--	< 0.074	< 0.074
Malathion	06/04/2015	E614	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074
Malathion	06/16/2015	E614	--	--	< 0.074	--	--
Methoxychlor	01/20/2015	E608	--	--	--	--	< 0.057
Methoxychlor	05/21/2015	E608	< 0.006	< 0.005	--	< 0.006	< 0.005
Methoxychlor	06/04/2015	E608	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Methoxychlor	06/16/2015	E608	--	--	< 0.005	--	--
Parathion	01/20/2015	E614	--	--	--	--	< 1
Parathion	05/21/2015	E614	< 0.038	< 0.038	--	< 0.038	< 0.038
Parathion	06/04/2015	E614	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Parathion	06/16/2015	E614	--	--	< 0.038	--	--
Toxaphene	01/20/2015	E608	--	--	--	--	< 1.14
Toxaphene	05/21/2015	E608	< 0.222	< 0.202	--	< 0.235	< 0.208
Toxaphene	06/04/2015	E608	< 0.200	< 0.215	< 0.204	< 0.206	< 0.213
Toxaphene	06/16/2015	E608	--	--	< 0.206	--	--
Radium (pCi/L)							
Radium-226	01/20/2015	E903.1	--	--	--	--	< 0.901
Radium-226	03/31/2015	E903.1	**1.61**	**2.67**	--	--	--
Radium-226	04/15/2015	E903.1	**1.03**	**6.3**	< 0.253	--	--
Radium-226	05/21/2015	E903.1	**2.07**	**1.46**	--	**0.127**	**0.729**
Radium-226	06/04/2015	E903.1	--	--	**0.119**	**0.492**	**0.261**
Radium-226	06/16/2015	E903.1	--	--	**0.23**	--	--
Radium-228	01/20/2015	--	--	--	--	--	< 0.901
Radium-228	03/31/2015	SW9320	< 1.40	**2.88**	--	--	--
Radium-228	04/15/2015	SW9320	< 2.96	< 2.00	< 1.76	--	--
Radium-228	05/21/2015	E904.0	**1.47**	**1.32**	--	**0.475**	**0.283**
Radium-228	06/04/2015	E904.0	--	--	**-0.171**	**0.341**	**0.0745**
Radium-228	06/16/2015	E904.0	--	--	**0.371**	--	--
SVOCs (ug/L)							
1,2,4-Trichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,2,4-Trichlorobenzene	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
1,2,4-Trichlorobenzene	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
1,2,4-Trichlorobenzene	06/16/2015	E625	--	--	< 2.06	--	--
1,2-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,2-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,2-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,2-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
1,2-Diphenylhydrazine	01/20/2015	E625	--	--	--	--	< 10.9
1,2-Diphenylhydrazine	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
1,2-Diphenylhydrazine	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
1,2-Diphenylhydrazine	06/16/2015	E625	--	--	< 10.3	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
1,3-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,3-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,3-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,3-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
1,4-Dichlorobenzene	01/20/2015	E625	--	--	--	--	< 10.9
1,4-Dichlorobenzene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
1,4-Dichlorobenzene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
1,4-Dichlorobenzene	06/16/2015	E625	--	--	< 1.03	--	--
2,4,6-Trichlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4,6-Trichlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4,6-Trichlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4,6-Trichlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2,4-Dichlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dichlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4-Dichlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4-Dichlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2,4-Dimethylphenol	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dimethylphenol	05/21/2015	E625	< 0.51	< 0.51	--	< 0.51	< 0.53
2,4-Dimethylphenol	06/04/2015	E625	< 0.54	< 0.52	< 0.52	< 0.51	< 2.66
2,4-Dimethylphenol	06/16/2015	E625	--	--	< 0.52	--	--
2,4-Dinitrophenol	01/20/2015	E625	--	--	--	--	< 54.3
2,4-Dinitrophenol	05/21/2015	E625	< 0.51	< 0.51	--	< 0.51	< 0.53
2,4-Dinitrophenol	06/04/2015	E625	< 0.54	< 0.52	< 0.52	< 0.51	< 2.66
2,4-Dinitrophenol	06/16/2015	E625	--	--	< 0.52	--	--
2,4-Dinitrotoluene	01/20/2015	E625	--	--	--	--	< 10.9
2,4-Dinitrotoluene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,4-Dinitrotoluene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,4-Dinitrotoluene	06/16/2015	E625	--	--	< 1.03	--	--
2,6-Dinitrotoluene	01/20/2015	E625	--	--	--	--	< 10.9
2,6-Dinitrotoluene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2,6-Dinitrotoluene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2,6-Dinitrotoluene	06/16/2015	E625	--	--	< 1.03	--	--
2-Chloronaphthalene	01/20/2015	E625	--	--	--	--	< 10.9
2-Chloronaphthalene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Chloronaphthalene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Chloronaphthalene	06/16/2015	E625	--	--	< 1.03	--	--
2-Chlorophenol	01/20/2015	E625	--	--	--	--	< 10.9
2-Chlorophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Chlorophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Chlorophenol	06/16/2015	E625	--	--	< 1.03	--	--
2-Nitrophenol	01/20/2015	E625	--	--	--	--	< 10.9
2-Nitrophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
2-Nitrophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
2-Nitrophenol	06/16/2015	E625	--	--	< 1.03	--	--
3,3'-Dichlorobenzidine	01/20/2015	E625	--	--	--	--	< 10.9
3,3'-Dichlorobenzidine	05/21/2015	E625	< 4.04	< 4.08	--	< 4.08	< 4.26
3,3'-Dichlorobenzidine	06/04/2015	E625	< 4.35	< 4.12	< 4.17	< 4.04	< 21.3
3,3'-Dichlorobenzidine	06/16/2015	E625	--	--	< 4.12	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
4,6-Dinitro-2-methylphenol	01/20/2015	E625	--	--	--	--	< 54.3
4,6-Dinitro-2-methylphenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4,6-Dinitro-2-methylphenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4,6-Dinitro-2-methylphenol	06/16/2015	E625	--	--	< 1.03	--	--
4-Bromophenyl Phenyl Ether	01/20/2015	E625	--	--	--	--	< 10.9
4-Bromophenyl Phenyl Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Bromophenyl Phenyl Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Bromophenyl Phenyl Ether	06/16/2015	E625	--	--	< 1.03	--	--
4-Chlorophenyl-phenylether	01/20/2015	E625	--	--	--	--	< 10.9
4-Chlorophenyl-phenylether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Chlorophenyl-phenylether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Chlorophenyl-phenylether	06/16/2015	E625	--	--	< 1.03	--	--
4-Nitrophenol	01/20/2015	E625	--	--	--	--	< 54.3
4-Nitrophenol	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
4-Nitrophenol	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
4-Nitrophenol	06/16/2015	E625	--	--	< 1.03	--	--
Acenaphthene	01/20/2015	E625	--	--	--	--	< 10.9
Acenaphthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Acenaphthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Acenaphthene	06/16/2015	E625	--	--	< 1.03	--	--
Acenaphthylene	01/20/2015	E625	--	--	--	--	< 10.9
Acenaphthylene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Acenaphthylene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Acenaphthylene	06/16/2015	E625	--	--	< 1.03	--	--
Anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Anthracene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Anthracene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Anthracene	06/16/2015	E625	--	--	< 1.03	--	--
Benzidine	01/20/2015	E625	--	--	--	--	< 54.3
Benzidine	05/21/2015	E625	< 50.5	< 51.0	--	< 51.0	< 53.2
Benzidine	06/04/2015	E625	< 54.3	< 51.5	< 52.1	< 50.5	< 266
Benzidine	06/16/2015	E625	--	--	< 51.5	--	--
Benzo[a]anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[a]anthracene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Benzo[a]anthracene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Benzo[a]anthracene	06/16/2015	E625	--	--	< 10.3	--	--
Benzo[a]pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[a]pyrene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[a]pyrene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[a]pyrene	06/16/2015	E625	--	--	< 1.03	--	--
Benzo[b]fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[b]fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[b]fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[b]fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Benzo[g,h,i]perylene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[g,h,i]perylene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[g,h,i]perylene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[g,h,i]perylene	06/16/2015	E625	--	--	< 1.03	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Benzo[k]fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Benzo[k]fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Benzo[k]fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Benzo[k]fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloro-1-methylethyl) Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloro-1-methylethyl) Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloro-1-methylethyl) Ether	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloroethoxy)methane	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-chloroethoxy)methane	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloroethoxy)methane	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloroethoxy)methane	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-chloroethyl) Ether	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-chloroethyl) Ether	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-chloroethyl) Ether	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-chloroethyl) Ether	06/16/2015	E625	--	--	< 1.03	--	--
Bis(2-ethylhexyl) Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Bis(2-ethylhexyl) Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Bis(2-ethylhexyl) Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Bis(2-ethylhexyl) Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Butylbenzyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Butylbenzyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Butylbenzyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Butylbenzyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Chrysene	01/20/2015	E625	--	--	--	--	< 10.9
Chrysene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Chrysene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Chrysene	06/16/2015	E625	--	--	< 1.03	--	--
Dibenz[a,h]anthracene	01/20/2015	E625	--	--	--	--	< 10.9
Dibenz[a,h]anthracene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Dibenz[a,h]anthracene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Dibenz[a,h]anthracene	06/16/2015	E625	--	--	< 1.03	--	--
Diethyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Diethyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Diethyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Diethyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Dimethyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Dimethyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Dimethyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Dimethyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--
Di-n-Butyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Di-n-Butyl Phthalate	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
Di-n-Butyl Phthalate	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
Di-n-Butyl Phthalate	06/16/2015	E625	--	--	< 2.06	--	--
Di-n-octyl Phthalate	01/20/2015	E625	--	--	--	--	< 10.9
Di-n-octyl Phthalate	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Di-n-octyl Phthalate	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Di-n-octyl Phthalate	06/16/2015	E625	--	--	< 1.03	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Fluoranthene	01/20/2015	E625	--	--	--	--	< 10.9
Fluoranthene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Fluoranthene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Fluoranthene	06/16/2015	E625	--	--	< 1.03	--	--
Fluorene	01/20/2015	E625	--	--	--	--	< 10.9
Fluorene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Fluorene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Fluorene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachlorobenzene	01/20/2015	E625	--	--	--	--	< 2.72
Hexachlorobenzene	05/21/2015	E625	< 2.53	< 2.55	--	< 2.55	< 2.66
Hexachlorobenzene	06/04/2015	E625	< 2.72	< 2.58	< 2.60	< 2.53	< 13.3
Hexachlorobenzene	06/16/2015	E625	--	--	< 2.58	--	--
Hexachlorobutadiene	01/20/2015	E625	--	--	--	--	< 10.9
Hexachlorobutadiene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachlorobutadiene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachlorobutadiene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachlorocyclopentadiene	01/20/2015	E625	--	--	--	--	< 10.9
Hexachlorocyclopentadiene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachlorocyclopentadiene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachlorocyclopentadiene	06/16/2015	E625	--	--	< 1.03	--	--
Hexachloroethane	01/20/2015	E625	--	--	--	--	< 10.9
Hexachloroethane	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Hexachloroethane	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Hexachloroethane	06/16/2015	E625	--	--	< 1.03	--	--
Indeno[1,2,3-cd]pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Indeno[1,2,3-cd]pyrene	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Indeno[1,2,3-cd]pyrene	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Indeno[1,2,3-cd]pyrene	06/16/2015	E625	--	--	< 1.03	--	--
Isophorone	01/20/2015	E625	--	--	--	--	< 10.9
Isophorone	05/21/2015	E625	< 1.01	< 1.02	--	< 1.02	< 1.06
Isophorone	06/04/2015	E625	< 1.09	< 1.03	< 1.04	< 1.01	< 5.32
Isophorone	06/16/2015	E625	--	--	< 1.03	--	--
Kepone	01/20/2015	SW8270D	--	--	--	--	< 10.9
Kepone	05/21/2015	SW8270D	< 2.02	< 2.04	--	< 2.04	< 2.13
Kepone	06/04/2015	SW8270D	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
Kepone	06/16/2015	SW8270D	--	--	< 2.06	--	--
Naphthalene	01/20/2015	E625	--	--	--	--	< 10.9
Naphthalene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Naphthalene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Naphthalene	06/16/2015	E625	--	--	< 10.3	--	--
Nitrobenzene	01/20/2015	E625	--	--	--	--	< 10.9
Nitrobenzene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Nitrobenzene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Nitrobenzene	06/16/2015	E625	--	--	< 10.3	--	--
N-Nitrosodimethylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitrosodimethylamine	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
N-Nitrosodimethylamine	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
N-Nitrosodimethylamine	06/16/2015	E625	--	--	< 2.06	--	--
N-Nitroso-di-n-propylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitroso-di-n-propylamine	05/21/2015	E625	< 2.02	< 2.04	--	< 2.04	< 2.13
N-Nitroso-di-n-propylamine	06/04/2015	E625	< 2.17	< 2.06	< 2.08	< 2.02	< 10.6
N-Nitroso-di-n-propylamine	06/16/2015	E625	--	--	< 2.06	--	--
N-Nitrosodiphenylamine	01/20/2015	E625	--	--	--	--	< 10.9
N-Nitrosodiphenylamine	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
N-Nitrosodiphenylamine	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
N-Nitrosodiphenylamine	06/16/2015	E625	--	--	< 10.3	--	--
Nonylphenol	01/20/2015	D7065	--	--	--	--	< 5
Nonylphenol	05/21/2015	D7065	< 0.8182	< 0.8182	--	< 0.8182	< 0.8182
Nonylphenol	06/04/2015	D7065	< 0.8182	< 0.8182	< 0.8182	< 0.8182	< 0.8182
Nonylphenol	06/16/2015	D7065	--	--	< 0.8182	--	--
p-Chloro-m-cresol	01/20/2015	E625	--	--	--	--	< 10.9
p-Chloro-m-cresol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
p-Chloro-m-cresol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
p-Chloro-m-cresol	06/16/2015	E625	--	--	< 10.3	--	--
Pentachlorophenol	01/20/2015	E625	--	--	--	--	< 21.7
Pentachlorophenol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Pentachlorophenol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Pentachlorophenol	06/16/2015	E625	--	--	< 10.3	--	--
Phenanthrene	01/20/2015	E625	--	--	--	--	< 10.9
Phenanthrene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Phenanthrene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Phenanthrene	06/16/2015	E625	--	--	< 10.3	--	--
Phenol	01/20/2015	E420.4	--	--	--	--	< 10.9
Phenol	01/20/2015	E625	--	--	--	--	< 10.9
Phenol	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Phenol	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Phenol	06/16/2015	E625	--	--	< 10.3	--	--
Pyrene	01/20/2015	E625	--	--	--	--	< 10.9
Pyrene	05/21/2015	E625	< 10.1	< 10.2	--	< 10.2	< 10.6
Pyrene	06/04/2015	E625	< 10.9	< 10.3	< 10.4	< 10.1	< 53.2
Pyrene	06/16/2015	E625	--	--	< 10.3	--	--
Total Metals (ug/L)							
Aluminum	01/20/2015	SM3111D	--	--	--	--	< 130
Aluminum	03/31/2015	SW6010C	**22200**	**249000**	--	--	--
Aluminum	04/15/2015	SW6010C	**9220**	**65100**	**244**	--	--
Aluminum	05/21/2015	E200.7	**76300**	**120000**	--	**76.1**	**181**
Aluminum	06/04/2015	E200.7	**24700**	**123000**	< 20.0	**334**	**261**
Aluminum	06/16/2015	E200.7	--	--	< 20.0	--	--
Antimony	01/20/2015	SM3113B	--	--	--	--	< 1
Antimony	03/31/2015	SW6020A	**11.7**	**13.4**	--	--	--
Antimony	04/15/2015	SW6020A	**13.5**	**8.79**	**0.715**	**0.355**	**0.909**
Antimony	05/21/2015	E200.8	**4.77**	**9.50**	--	**0.157**	**0.559**
Antimony	06/04/2015	E200.8	**4.73**	**7.97**	< 0.110	**0.247**	**0.213**
Antimony	06/16/2015	E200.8	--	--	< 0.110	--	--
Arsenic	01/20/2015	SM3113B	--	--	--	--	< 2

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Arsenic	03/31/2015	SW6010C	173	813	--	--	--
Arsenic	04/15/2015	SW6010C	265	425	< 6.80	--	--
Arsenic	05/21/2015	E200.8	1020	838	--	3.59	7.43
Arsenic	05/21/2015	E200.9	--	544	--	--	--
Arsenic	06/04/2015	E200.8	485	1460	< 0.610	8.57	3.89
Arsenic	06/04/2015	E200.9	--	511	--	--	--
Arsenic	06/16/2015	E200.8	--	--	< 0.610	--	--
Barium	01/20/2015	SM3113B	--	--	--	--	43
Barium	03/31/2015	SW6010C	758	9370	--	--	--
Barium	04/15/2015	SW6010C	844	2620	114	--	--
Barium	05/21/2015	E200.7	2510	3680	--	58.9	125
Barium	06/04/2015	E200.7	1260	3540	14.5	59.9	108
Barium	06/16/2015	E200.7	--	--	13.4	--	--
Beryllium	01/20/2015	SM3113B	--	--	--	--	< 0.2
Beryllium	03/31/2015	SW6010C	5.54	87.7	--	--	--
Beryllium	04/15/2015	SW6010C	3.14	31.9	< 0.100	--	--
Beryllium	05/21/2015	E200.7	22.6	57.0	--	< 2.0	< 2.0
Beryllium	06/04/2015	E200.7	6.8	64.9	< 2.0	< 2.0	< 2.0
Beryllium	06/16/2015	E200.7	--	--	< 2.0	--	--
Boron	03/31/2015	SW6010C	1320	2190	--	--	--
Boron	04/15/2015	SW6010C	2790	2190	396	230	413
Boron	05/21/2015	E200.7	1630	1750	--	217	410
Boron	06/04/2015	E200.7	1740	1890	774	238	245
Boron	06/16/2015	E200.7	--	--	777	--	--
Cadmium	01/20/2015	SM3113B	--	--	--	--	< 0.3
Cadmium	03/31/2015	SW6010C	< 0.360	1.36	--	--	--
Cadmium	04/15/2015	SW6010C	< 0.360	1.33	< 0.360	< 0.360	< 0.360
Cadmium	05/21/2015	E200.8	2.26	9.41	--	< 0.110	< 0.110
Cadmium	06/04/2015	E200.8	0.636	11.5	< 0.110	< 0.110	< 0.110
Cadmium	06/16/2015	E200.8	--	--	< 0.110	--	--
Calcium	03/31/2015	SW6010C	53700	174000	--	--	--
Calcium	04/15/2015	SW6010C	129000	179000	32000	125000	35700
Calcium	05/21/2015	E200.7	137000	189000	--	119000	33400
Calcium	06/04/2015	E200.7	128000	228000	20900	124000	28800
Calcium	06/16/2015	E200.7	--	--	20400	--	--
Chromium	01/20/2015	SM3113B	--	--	--	--	< 1
Chromium	03/31/2015	SW6010C	32.3	366	--	--	--
Chromium	04/15/2015	SW6010C	20.5	150	< 1.40	< 1.40	< 1.40
Chromium	05/21/2015	E200.8	112	342	--	0.498	< 0.450
Chromium	06/04/2015	E200.8	23.6	557	< 0.450	3.08	< 0.450
Chromium	06/16/2015	E200.8	--	--	< 0.450	--	--
Chromium (III)	05/21/2015	CALC	112	342	--	< 5	< 5
Chromium (III)	06/04/2015	CALC	24	557	< 5	< 5	< 5
Chromium (III)	06/16/2015	CALC	--	--	< 5	--	--
Cobalt	01/20/2015	SM3113B	--	--	--	--	< 0.6
Cobalt	03/31/2015	SW6010C	25.5	265	--	--	--
Cobalt	04/15/2015	SW6010C	13.6	79.7	< 1.10	--	--
Cobalt	05/21/2015	E200.7	77.6	167	--	< 2.0	< 2.0
Cobalt	06/04/2015	E200.7	29.4	174	< 2.0	5.5	< 2.0
Cobalt	06/16/2015	E200.7	--	--	< 2.0	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Copper	01/20/2015	SM3113B	--	--	--	--	11
Copper	03/31/2015	SW6010C	86.6	1050	--	--	--
Copper	04/15/2015	SW6010C	57.7	404	2.81	4.04	4.26
Copper	05/21/2015	E200.8	363	1110	--	1.63	2.32
Copper	05/21/2015	E200.9	--	806	--	--	--
Copper	06/04/2015	E200.8	70.3	1780	< 0.220	6.05	2.87
Copper	06/04/2015	E200.9	--	853	--	--	--
Copper	06/16/2015	E200.8	--	--	0.681	--	--
Hexavalent Chromium	04/15/2015	SM3500-CR-B	< 8.8	16	17	< 8.8	12
Hexavalent Chromium	05/21/2015	SM3500-CR-B	< 50	< 25	--	< 5	< 5
Hexavalent Chromium	06/04/2015	SM3500-CR-B	< 25	< 100	< 5	< 5	< 5
Hexavalent Chromium	06/16/2015	SM3500-CR-B	--	--	< 5	--	--
Iron	01/20/2015	SM3111B	--	--	--	--	240
Iron	03/31/2015	SW6010C	10700	103000	--	--	--
Iron	04/15/2015	SW6010C	4070	22600	1030	142	379
Iron	05/21/2015	E200.7	27800	29800	--	548	244
Iron	06/04/2015	E200.7	8930	30600	12.7	1410	481
Iron	06/16/2015	E200.7	--	--	3.6	--	--
Lead	01/20/2015	SM3113B	--	--	--	--	< 1
Lead	03/31/2015	SW6010C	28.8	336	--	--	--
Lead	04/15/2015	SW6010C	15.9	77.2	< 3.10	< 3.10	< 3.10
Lead	05/21/2015	E200.8	152	244	--	< 0.160	< 0.160
Lead	06/04/2015	E200.8	35.6	579	< 0.160	1.47	0.254
Lead	06/16/2015	E200.8	--	--	< 0.160	--	--
Lithium	03/31/2015	SW6010C	259	579	--	--	--
Lithium	04/15/2015	SW6010C	507	372	5.39	--	--
Lithium	05/21/2015	SW6010C	--	--	--	320	320
Lithium	06/04/2015	SW6010C	44	320	< 1.2	330	< 1.2
Lithium	06/16/2015	SW6010C	--	--	< 1.2	--	--
Magnesium	01/20/2015	SM3111B	--	--	--	--	4570
Magnesium	03/31/2015	SW6010C	15200	41200	--	--	--
Magnesium	04/15/2015	SW6010C	31400	30300	13300	4380	11200
Magnesium	05/21/2015	E200.7	32500	38200	--	4140	10700
Magnesium	06/04/2015	E200.7	28600	47000	6770	4880	8340
Magnesium	06/16/2015	E200.7	--	--	6650	--	--
Manganese	01/20/2015	SM3111B	--	--	--	--	30
Manganese	03/31/2015	SW6010C	463	1170	--	--	--
Manganese	04/15/2015	SW6010C	858	994	241	27.8	100
Manganese	05/21/2015	E200.7	1280	1850	--	79.2	103
Manganese	06/04/2015	E200.7	1110	1850	< 2.0	542	175
Manganese	06/16/2015	E200.7	--	--	< 2.0	--	--
Mercury	01/20/2015	SM3112B	--	--	--	--	< 0.02
Mercury	03/31/2015	SW7470A	< 0.170	0.862	--	--	--
Mercury	04/15/2015	SW7470A	< 0.170	0.361	< 0.170	< 0.170	< 0.170
Mercury	05/21/2015	E245.1	0.189	1.86	--	< 0.023	< 0.023
Mercury	06/04/2015	E245.1	< 0.023	5.39	0.147	< 0.023	< 0.023
Mercury	06/16/2015	E245.1	--	--	< 0.023	--	--
Molybdenum	01/20/2015	SM3113B	--	--	--	--	7
Molybdenum	03/31/2015	SW6010C	226	64.9	--	--	--
Molybdenum	04/15/2015	SW6010C	305	32.6	< 2.50	--	--
Molybdenum	05/21/2015	E200.7	52.6	< 50.0	--	< 50.0	< 50.0

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Molybdenum	06/04/2015	E200.7	**92.5**	< 50.0	< 50.0	< 50.0	< 50.0
Molybdenum	06/16/2015	E200.7	--	--	< 50.0	--	--
Nickel	01/20/2015	SM3113B	--	--	--	--	< 5
Nickel	03/31/2015	SW6010C	**40.5**	**430**	--	--	--
Nickel	04/15/2015	SW6010C	**30.3**	**135**	**7.55**	**15.1**	**8.40**
Nickel	05/21/2015	E200.8	**126**	**332**	--	**11.4**	**1.81**
Nickel	06/04/2015	E200.8	**31.0**	**625**	**0.403**	**20.3**	**1.72**
Nickel	06/16/2015	E200.8	--	--	**0.527**	--	--
Potassium	03/31/2015	SW6010C	**12600**	**44500**	--	--	--
Potassium	04/15/2015	SW6010C	**13900**	**20600**	**1860**	--	--
Potassium	05/21/2015	E200.7	**23400**	**27700**	--	**30200**	**3470**
Potassium	06/04/2015	E200.7	**14800**	**25400**	**1070**	**28300**	**3340**
Potassium	06/16/2015	E200.7	--	--	**990**	--	--
Selenium	01/20/2015	SM3113B	--	--	--	--	< 2
Selenium	03/31/2015	SW6010C	< 5.00	**90.0**	--	--	--
Selenium	04/15/2015	SW6010C	< 5.00	**15.1**	< 5.00	< 5.00	< 5.00
Selenium	05/21/2015	E200.8	< 13.0	**35.3**	--	**5.48**	< 0.650
Selenium	06/04/2015	E200.8	< 3.25	**144**	< 0.650	**10.6**	< 0.650
Selenium	06/16/2015	E200.8	--	--	< 0.650	--	--
Silver	01/20/2015	SM3113B	--	--	--	--	< 0.1
Silver	03/31/2015	SW6020A	< 0.500	< 1.00	--	--	--
Silver	04/15/2015	SW6010C	< 1.90	< 1.90	< 1.90	< 1.90	< 1.90
Silver	05/21/2015	E200.8	< 0.580	< 0.870	--	< 0.029	< 0.029
Silver	06/04/2015	E200.8	< 0.145	< 0.870	< 0.029	< 0.029	< 0.029
Silver	06/16/2015	E200.8	--	--	< 0.029	--	--
Sodium	03/31/2015	SW6010C	**76000**	**16200**	--	--	--
Sodium	04/15/2015	SW6010C	**36900**	**10500**	**20000**	--	--
Sodium	05/21/2015	E200.7	**17700**	**11800**	--	**9810**	**19600**
Sodium	06/04/2015	E200.7	**15400**	**11500**	**22000**	**9890**	**14800**
Sodium	06/16/2015	E200.7	--	--	**21300**	--	--
Thallium	01/20/2015	E279.2	--	--	--	--	< 0.3
Thallium	03/31/2015	SW6020A	**1.91**	**11.4**	--	--	--
Thallium	04/15/2015	SW6020A	**0.818**	**9.12**	< 0.110	**0.141**	**0.134**
Thallium	05/21/2015	E200.8	**7.96**	**26.4**	--	< 0.058	< 0.058
Thallium	06/04/2015	E200.8	**1.78**	**46.4**	< 0.058	**0.096**	< 0.058
Thallium	06/16/2015	E200.8	--	--	< 0.058	--	--
Vanadium	03/31/2015	SW6010C	**176**	**1420**	--	--	--
Vanadium	04/15/2015	SW6010C	**159**	**796**	< 1.40	--	--
Vanadium	05/21/2015	E200.7	**407**	**718**	--	< 2.0	**2.8**
Vanadium	06/04/2015	E200.7	**131**	**1080**	< 2.0	< 2.0	< 2.0
Vanadium	06/16/2015	E200.7	--	--	< 2.0	--	--
Zinc	01/20/2015	SM3111B	--	--	--	--	**13**
Zinc	03/31/2015	SW6010C	**58.1**	**447**	--	--	--
Zinc	04/15/2015	SW6010C	**35.5**	**167**	< 3.80	< 3.80	**4.31**
Zinc	05/21/2015	E200.8	**228**	**491**	--	**16.9**	**14.0**
Zinc	06/04/2015	E200.8	**47.2**	**943**	< 1.60	**9.35**	**6.28**
Zinc	06/16/2015	E200.8	--	--	**5.50**	--	--
VOCs (ug/L)							
1,1,1-Trichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,1-Trichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
1,1,1-Trichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1,2,2-Tetrachloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,2,2-Tetrachloroethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,1,2,2-Tetrachloroethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,1,2,2-Tetrachloroethane	06/16/2015	E624	--	--	< 1.50	--	--
1,1,2-Trichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1,2-Trichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1,2-Trichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1-Dichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,1-Dichloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1-Dichloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	06/16/2015	E624	--	--	< 1.00	--	--
1,1-Dichloroethene	01/20/2015	E624	--	--	--	--	< 1
1,1-Dichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,1-Dichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
1,2-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,2-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
1,2-Dichloroethane	01/20/2015	E624	--	--	--	--	< 1
1,2-Dichloroethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,2-Dichloroethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,2-Dichloroethane	06/16/2015	E624	--	--	< 1.50	--	--
1,2-Dichloropropane	01/20/2015	E624	--	--	--	--	< 1
1,2-Dichloropropane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
1,2-Dichloropropane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
1,2-Dichloropropane	06/16/2015	E624	--	--	< 1.50	--	--
1,3-Dichlorobenzene	01/20/2015	E624	--	--	--	--	< 10
1,3-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,3-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
1,3-Dichloropropene, Total	01/20/2015	E624	--	--	--	--	< 10
1,3-Dichloropropene, Total	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,3-Dichloropropene, Total	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3-Dichloropropene, Total	06/16/2015	E624	--	--	< 1.00	--	--
1,4-Dichlorobenzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
1,4-Dichlorobenzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,4-Dichlorobenzene	06/16/2015	E624	--	--	< 1.00	--	--
2-Chloroethyl Vinyl Ether	01/20/2015	E624	--	--	--	--	< 10
2-Chloroethyl Vinyl Ether	05/21/2015	E624	< 5.00	< 5.00	--	< 5.00	< 5.00
2-Chloroethyl Vinyl Ether	06/04/2015	E624	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
2-Chloroethyl Vinyl Ether	06/16/2015	E624	--	--	< 5.00	--	--
Acrolein	01/20/2015	E624	--	--	--	--	< 10
Acrolein	05/21/2015	E624	< 25.5	< 25.5	--	< 25.5	< 25.5
Acrolein	06/04/2015	E624	< 25.5	< 25.5	< 25.5	< 25.5	< 25.5

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Acrolein	06/16/2015	E624	--	--	< 25.5	--	--
Acrylonitrile	01/20/2015	E624	--	--	--	--	**8.95**
Acrylonitrile	05/21/2015	E624	< 8.50	< 8.50	--	< 8.50	< 8.50
Acrylonitrile	06/04/2015	E624	< 8.50	< 8.50	< 8.50	< 8.50	< 8.50
Acrylonitrile	06/16/2015	E624	--	--	< 8.50	--	--
Benzene	01/20/2015	E624	--	--	--	--	< 1
Benzene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Benzene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzene	06/16/2015	E624	--	--	< 1.00	--	--
Bromodichloromethane	01/20/2015	E624	--	--	--	--	< 1
Bromodichloromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Bromodichloromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromodichloromethane	06/16/2015	E624	--	--	< 1.00	--	--
Bromoform	01/20/2015	E624	--	--	--	--	< 1
Bromoform	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Bromoform	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Bromoform	06/16/2015	E624	--	--	< 1.50	--	--
Bromomethane	01/20/2015	E624	--	--	--	--	< 1
Bromomethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Bromomethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromomethane	06/16/2015	E624	--	--	< 1.00	--	--
Carbon Tetrachloride	01/20/2015	E624	--	--	--	--	< 1000
Carbon Tetrachloride	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Carbon Tetrachloride	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Carbon Tetrachloride	06/16/2015	E624	--	--	< 1.00	--	--
Chlorobenzene	01/20/2015	E624	--	--	--	--	< 1
Chlorobenzene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
Chlorobenzene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	06/16/2015	E624	--	--	< 0.50	--	--
Chloroethane	01/20/2015	E624	--	--	--	--	< 1
Chloroethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Chloroethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	06/16/2015	E624	--	--	< 1.00	--	--
Chloroform	01/20/2015	E624	--	--	--	--	< 1
Chloroform	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Chloroform	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroform	06/16/2015	E624	--	--	< 1.00	--	--
Chloromethane	01/20/2015	E624	--	--	--	--	< 1
Chloromethane	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Chloromethane	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Chloromethane	06/16/2015	E624	--	--	< 1.50	--	--
cis-1,3-Dichloropropene	01/20/2015	E624	--	--	--	--	< 1
cis-1,3-Dichloropropene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
cis-1,3-Dichloropropene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
cis-1,3-Dichloropropene	06/16/2015	E624	--	--	< 1.00	--	--
Dibromochloromethane	01/20/2015	E624	--	--	--	--	< 1
Dibromochloromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Dibromochloromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromochloromethane	06/16/2015	E624	--	--	< 1.00	--	--
Ethylbenzene	01/20/2015	E624	--	--	--	--	< 1
Ethylbenzene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
Ethylbenzene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	06/16/2015	E624	--	--	< 0.50	--	--
m,p-Xylenes	01/20/2015	E624	--	--	--	--	< 2
m,p-Xylenes	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
m,p-Xylenes	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
m,p-Xylenes	06/16/2015	E624	--	--	< 1.00	--	--
Methylene Chloride	01/20/2015	E624	--	--	--	--	< 4
Methylene Chloride	05/21/2015	E624	< 5.00	< 5.00	--	< 5.00	< 5.00
Methylene Chloride	06/04/2015	E624	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Methylene Chloride	06/16/2015	E624	--	--	< 5.00	--	--
o-Xylene	01/20/2015	E624	--	--	--	--	< 1
o-Xylene	05/21/2015	E624	< 0.50	< 0.50	--	< 0.50	< 0.50
o-Xylene	06/04/2015	E624	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
o-Xylene	06/16/2015	E624	--	--	< 0.50	--	--
Tetrachloroethene	01/20/2015	E624	--	--	--	--	< 1
Tetrachloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Tetrachloroethene	06/04/2015	E624	**1.56**	**1.68**	< 1.00	**1.16**	< 1.00
Tetrachloroethene	06/16/2015	E624	--	--	< 1.00	--	--
Toluene	01/20/2015	E624	--	--	--	--	< 1
Toluene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Toluene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	06/16/2015	E624	--	--	< 1.00	--	--
trans-1,2-Dichloroethene	01/20/2015	E624	--	--	--	--	< 1
trans-1,2-Dichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
trans-1,2-Dichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,2-Dichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
trans-1,3-Dichloropropene	01/20/2015	E624	--	--	--	--	< 1
trans-1,3-Dichloropropene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
trans-1,3-Dichloropropene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,3-Dichloropropene	06/16/2015	E624	--	--	< 1.00	--	--
Trichloroethene	01/20/2015	E624	--	--	--	--	< 1
Trichloroethene	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Trichloroethene	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichloroethene	06/16/2015	E624	--	--	< 1.00	--	--
Trichlorofluoromethane	01/20/2015	E624	--	--	--	--	< 1
Trichlorofluoromethane	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Trichlorofluoromethane	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichlorofluoromethane	06/16/2015	E624	--	--	< 1.00	--	--
Vinyl Chloride	01/20/2015	E624	--	--	--	--	< 1
Vinyl Chloride	05/21/2015	E624	< 1.00	< 1.00	--	< 1.00	< 1.00
Vinyl Chloride	06/04/2015	E624	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Vinyl Chloride	06/16/2015	E624	--	--	< 1.00	--	--
Xylenes, Total	01/20/2015	E624	--	--	--	--	< 3

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
Xylenes, Total	05/21/2015	E624	< 1.50	< 1.50	--	< 1.50	< 1.50
Xylenes, Total	06/04/2015	E624	< 1.50	< 1.50	< 1.50	< 1.50	< 1.50
Xylenes, Total	06/16/2015	E624	--	--	< 1.50	--	--
WQ/Other (ug/L)							
Alkalinity, Total	03/31/2015	E310.2	**280000**	**380000**	--	--	--
Alkalinity, Total	04/15/2015	E310.2	**430000**	**420000**	**110000**	--	--
Alkalinity, Total	05/21/2015	SM2320B	**421000**	**397000**	--	**136000**	**113000**
Alkalinity, Total	06/04/2015	SM2320B	--	--	**72000**	**136000**	**92000**
Alkalinity, Total	06/16/2015	SM2320B	--	--	**74000**	--	--
Ammonia	03/31/2015	E350.1	**220**	**280**	--	--	--
Ammonia	04/15/2015	E350.1	**330**	**310**	< 45	< 45	< 45
Ammonia Nitrogen	01/20/2015	SM4500-NH3-D	--	--	--	--	**60**
Ammonia Nitrogen	05/21/2015	E350.1	**460**	**210**	--	**90**	**80**
Ammonia Nitrogen	06/04/2015	E350.1	--	--	< 50	--	--
Ammonia Nitrogen	06/16/2015	E350.1	--	--	< 50	--	--
Biochemical Oxygen Demand	01/20/2015	SM5210B	--	--	--	--	< 2000
Biochemical Oxygen Demand	03/31/2015	SM5210B	< 2000	**2000**	--	--	--
Biochemical Oxygen Demand	04/15/2015	SM5210B	< 2000	< 2000	< 2000	--	--
Biochemical Oxygen Demand	05/21/2015	SM5210B	< 200	< 200	--	< 200	< 200
Biochemical Oxygen Demand	06/04/2015	SM5210B	--	--	< 200	< 200	< 200
Biochemical Oxygen Demand	06/16/2015	SM5210B	--	--	**700**	--	--
Bromide	01/20/2015	E300	--	--	--	--	< 1000
Bromide	04/15/2015	E300	**790**	**110**	**230**	**71**	**180**
Bromide	05/21/2015	E300.0A	< 1000	< 1000	--	**3050**	< 1000
Bromide	06/16/2015	E300.0A	--	--	< 5000	--	--
Chemical Oxygen Demand	01/20/2015	H8000	--	--	--	--	< 5000
Chemical Oxygen Demand	05/21/2015	SM5220D	**1170000**	**3920000**	--	**14600**	< 10000
Chemical Oxygen Demand	06/04/2015	SM5220D	**115000**	**1090000**	< 10000	**22100**	**16300**
Chemical Oxygen Demand	06/16/2015	SM5220D	--	--	< 10000	--	--
Chloride	01/20/2015	E300	--	--	--	--	**14700**
Chloride	03/31/2015	E300	**15000**	**5500**	--	--	--
Chloride	04/15/2015	E300	**17000**	**4100**	**9700**	**3800**	**15000**
Chloride	05/21/2015	E300.0A	**12300**	**2900**	--	< 1000	**14000**
Chloride	06/04/2015	E300.0A	--	--	**11800**	--	--
Chloride	06/16/2015	E300.0A	--	--	**11600**	--	--
Cyanide	01/20/2015	SM4500-CN-E	--	--	--	--	< 10
Cyanide	05/21/2015	SM4500-CN-E	< 10	< 10	--	**12**	< 10
Cyanide	06/04/2015	SM4500-CN-E	< 10	< 10	< 10	< 10	< 10
Cyanide	06/16/2015	SM4500-CN-E	--	--	< 10	--	--
Fluoride	01/20/2015	E300	--	--	--	--	**44**
Fluoride	03/31/2015	E300	**420**	**130**	--	--	--
Fluoride	04/15/2015	E300	**410**	**120**	**100**	--	--
Fluoride	05/21/2015	E300.0A	**600**	< 100	--	**500**	< 100
Fluoride	06/04/2015	E300.0A	--	--	< 100	**500**	< 100
Fluoride	06/16/2015	E300.0A	--	--	< 500	--	--
Hardness	04/15/2015	SM2340B	**450000**	**570000**	**130000**	--	--
Hardness	05/21/2015	SM2340B	**476000**	**628000**	--	**313000**	**128000**
Hardness	06/04/2015	SM2340B	**438000**	**764000**	**80000**	**330000**	**106000**
Hardness	06/16/2015	SM2340B	--	--	**78300**	--	--

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			Ash Dewatering Water		Toe Drain	Commingled Process and Stormwater	
Nitrate	05/21/2015	CALC	< 150	< 150	--	< 150	< 150
Nitrate	06/04/2015	CALC	--	--	< 150	--	--
Nitrate	06/16/2015	CALC	--	--	< 150	--	--
Nitrite	05/21/2015	SM4500-NO2	< 50	< 50	--	< 50	< 50
Nitrite	06/04/2015	SM4500-NO2	--	--	< 50	--	--
Nitrite	06/16/2015	SM4500-NO2	--	--	< 50	--	--
Nitrogen, Nitrate-Nitrite	01/20/2015	E353.2	--	--	--	--	**170**
Nitrogen, Nitrate-Nitrite	03/31/2015	E353.2	< 41	< 41	--	--	--
Nitrogen, Nitrate-Nitrite	04/15/2015	E353.2	< 41	**83**	< 41	< 41	< 41
Nitrogen, Nitrate-Nitrite	05/21/2015	SM4500-NO3-F	**40**	**40**	--	**40**	**40**
Nitrogen, Nitrate-Nitrite	06/04/2015	SM4500-NO3-F	--	--	**120**	--	--
Nitrogen, Nitrate-Nitrite	06/16/2015	SM4500-NO3-F	--	--	**40**	--	--
Nitrogen, Total Kjeldahl	01/20/2015	E351.2	--	--	--	--	< 300
Nitrogen, Total Kjeldahl	04/15/2015	E351.2	**770**	**11000**	**320**	**400**	**340**
Nitrogen, Total Kjeldahl	05/21/2015	E351.2	**1480**	**1630**	--	**560**	< 200
Nitrogen, Total Kjeldahl	06/04/2015	E351.2	--	--	< 200	--	--
Nitrogen, Total Kjeldahl	06/16/2015	E351.2	--	--	< 200	--	--
Oil & Grease, Total Rec	01/20/2015	E1664B	--	--	--	--	< 5000
Oil & Grease, Total Rec	03/31/2015	E1664B	< 2400	< 2400	--	--	--
Oil & Grease, Total Rec	04/15/2015	E1664B	< 2400	< 2400	< 2400	< 2400	< 2400
Oil & Grease, Total Rec	05/21/2015	E1664A	< 5000	< 5000	--	< 5000	< 5000
Oil & Grease, Total Rec	06/04/2015	E1664A	--	--	< 5200	--	--
Oil & Grease, Total Rec	06/16/2015	E1664A	--	--	< 5000	--	--
Phosphorus	01/20/2015	SM4500-P-E	--	--	--	--	**60**
Phosphorus	04/15/2015	E365.4	**510**	**4400**	< 25	< 25	**30**
Phosphorus	05/21/2015	SM4500-P-E	**2930**	**12900**	--	**20**	**10**
Phosphorus	06/04/2015	SM4500-P-E	--	--	< 10	--	--
Phosphorus	06/16/2015	SM4500-P-E	--	--	**20**	--	--
Sulfate	01/20/2015	E300	--	--	--	--	**23210**
Sulfate	03/31/2015	E300	**74000**	**53000**	--	--	--
Sulfate	04/15/2015	E300	**40000**	**43000**	**39000**	**220000**	**42000**
Sulfate	05/21/2015	E300.0A	**7100**	**40300**	--	**255000**	**44600**
Sulfate	06/04/2015	E300.0A	--	--	**33600**	--	--
Sulfate	06/16/2015	E300.0A	--	--	**2610000**	--	--
Sulfide	01/20/2015	SM4500-S2-F	--	--	--	--	< 1000
Sulfide	05/21/2015	H8131	< 6	< 6	--	< 6	< 6
Sulfide	06/16/2015	H8131	--	--	< 6	--	--
Total Dissolved Solids	01/20/2015	SM2540C	--	--	--	--	**134000** **49500**
Total Dissolved Solids	03/31/2015	SM2540C	**390000**	**450000**	--	--	--
Total Dissolved Solids	04/15/2015	SM2540C	**500000**	**500000**	**200000**	**450000**	**180000**
Total Dissolved Solids	05/21/2015	SM2540C	**480000**	**487000**	--	**493000**	**225000**
Total Dissolved Solids	06/16/2015	SM2540C	--	--	**183000**	--	--
Total Organic Carbon	01/20/2015	SM5310B	--	--	--	--	**5200**
Total Organic Carbon	05/21/2015	SM5310C	< 1000	< 1000	--	**6200**	**3300**
Total Organic Carbon	06/04/2015	SM5310C	< 5000	< 1000	< 1000	**6100**	**3200**
Total Organic Carbon	06/16/2015	SM5310C	--	--	< 1000	--	--
Total Suspended Solids	01/20/2015	SM4500-P-E	--	--	--	--	**2400**

Table 2
Summary of Constituents in Expected Process Water
Bremo Power Station

			PZ-1 (North Pond)	PZ-2 (East Pond)	North Pond Toe Drain	Metals Pond	SWM Pond
Source Water Type			**Ash Dewatering Water**		**Toe Drain**	**Commingled Process and Stormwater**	
Total Suspended Solids	03/31/2015	SM2540D	**1100000**	**24000000**	--	--	--
Total Suspended Solids	04/15/2015	SM2540D	**750000**	**13000000**	**4300**	< 2500	**5400**
Total Suspended Solids	05/21/2015	SM2540D	**5640000**	**5120000**	--	**3000**	**47600**
Total Suspended Solids	06/04/2015	SM2540B	--	--	**175000**	--	--
Total Suspended Solids	06/04/2015	SM2540D	--	--	< 1000	--	--
Total Suspended Solids	06/16/2015	SM2540D	--	--	< 1000	--	--
Tributyltin	01/20/2015	GC-FPD	--	--	--	--	< 0.03
Tributyltin	05/21/2015	GC-FPD	< 0.03	< 0.03	--	< 0.03	< 0.03
Tributyltin	06/04/2015	GC-FPD	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tributyltin	06/16/2015	GC-FPD	--	--	< 0.01	--	--

ug/L - microgram per liter
pci/L - picocuries per liter
mpn/100ml - most probable number per 100 millilitres

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Bacteria (mpn/100ml)										
Entrococci	21	34	46	73	0.5	1	539	921	10	12
Escherichia coli	2	4	0	0	0	0	437	613	14	23
Dissolved Metals (ug/L)										
Aluminum	78.1	166	42	61.2	54.3	163	0	0	9.6	28.8
Antimony	8.69	15	14	21.4	0.126	0.378	0	0	0.282	0.615
Arsenic	271	453	185	604	0	0	1.49	2.57	2.27	5.9
Barium	527	648	694	788	45.5	109	51.8	55.9	84.3	117
Beryllium	0	0	0	0	0	0	0	0	0	0
Boron	1870	2880	1980	2420	661	803	235	246	367	428
Cadmium	0.03	0.12	1.79	7.05	0	0	0	0	0	0
Calcium	74700	126000	121000	142000	28100	32100	117000	121000	33300	36500
Chromium	0.288	1.15	56	223	0	0	0	0	0	0
Chromium (III)	0	0	112	223	0	0	0	0	0	0
Cobalt	1.05	2.62	7.96	20	0	0	0	0	0	0
Copper	1.69	2.51	203	773	1.11	2.25	2.86	4.36	3.49	6
Hexavalent Chromium	0	0	0	0	0	0	0	0	0	0
Iron	26.3	57.4	49	196	205	601	2.5	7.4	56	160
Lead	0	0	13.2	52.7	0	0	0	0	0	0
Lithium	257	454	388	520	1.84	5.53	190	370	0	0
Magnesium	24600	32600	23600	27300	8960	13400	4330	4640	8620	11300
Manganese	535	886	420	873	73	220	3.26	9.78	22.3	49.1
Mercury	0	0	0	0	0	0	0	0	0	0
Molybdenum	182	313	38.1	93.6	0	0	0	0	2	7
Nickel	5.64	14.6	61.2	187	2.65	7.1	16.6	25.9	2.87	8.6
Potassium	10700	12600	14600	15500	1290	1850	28500	29700	3330	3360
Selenium	0	0	1.81	7.24	0	0	2.88	5.29	0	0
Silver	0	0	0	0	0	0	0	0	0	0
Sodium	38000	79600	10300	12200	21000	21600	9600	9620	17100	19300
Sulfide	0	0	0	0	0	0	0	0	0	0
Thallium	0.33	0.531	7.3	19.3	0	0	0.047	0.141	0.015	0.061
Vanadium	54.4	88.8	183	291	0	0	0	0	0	0
Zinc	1.97	4.99	72	284	3.22	7.62	2.72	4.46	0.9	1.9
PCBs (ug/L)										
Aroclor 1016	0	0	0	0	0	0	0	0	0	0
Aroclor 1221	0	0	0	0	0	0	0	0	0	0
Aroclor 1232	0	0	0	0	0	0	0	0	0	0
Aroclor 1242	0	0	0	0	0	0	0	0	0	0
Aroclor 1248	0	0	0	0	0	0	0	0	0	0
Aroclor 1254	0	0	0	0	0	0	0	0	0	0
Aroclor 1260	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Pesticides (ug/L)										
4,4-DDD	0	0	0	0	0	0	0	0	0	0
4,4-DDE	0	0	0	0	0	0	0	0	0	0
4,4-DDT	0	0	0	0	0	0	0	0	0	0
Aldrin	0	0	0	0	0	0	0	0	0	0
alpha-BHC	0	0	0	0	0	0	0	0	0	0
alpha-Chlordane	0	0	0	0	0	0	0	0	0	0
alpha-Endosulfan	0	0	0	0	0	0	0	0	0	0
Azinphos-methyl	0	0	0	0	0	0	0	0	0	0
beta-BHC	0	0	0	0	0	0	0	0	0	0
beta-Endosulfan	0	0	0	0	0	0	0	0	0	0
Chlordane	0	0	0	0	0	0	0	0	0	0
Chlorpyrifos	0	0	0	0	0	0	0	0	0	0
delta-BHC	0	0	0	0	0	0	0	0	0	0
Demeton, Total	0	0	0	0	0	0	0	0	0	0
Demeton-O	0	0	0	0	0	0	0	0	0	0
Demeton-S	0	0	0	0	0	0	0	0	0	0
Diazinon	0	0	0	0	0	0	0	0	0	0
Dieldrin	0	0	0	0	0	0	0	0	0	0
Endosulfan Sulfate	0	0	0	0	0	0	0	0	0	0
Endrin	0	0	0	0	0	0	0	0	0	0
Endrin Aldehyde	0	0	0	0	0	0	0	0	0	0
gamma-BHC	0	0	0	0	0	0	0	0	0	0
Heptachlor	0	0	0	0	0	0	0	0	0	0
Heptachlor Epoxide	0	0	0	0	0	0	0	0	0	0
Malathion	0	0	0	0	0	0	0	0	0	0
Methoxychlor	0	0	0	0	0	0	0	0	0	0
Parathion	0	0	0	0	0	0	0	0	0	0
Toxaphene	0	0	0	0	0	0	0	0	0	0
Radium (pCi/L)										
Radium-226	1.57	2.07	3.48	6.3	0.116	0.23	0.31	0.492	0.33	0.729
Radium-228	0.49	1.47	1.4	2.88	0.0667	0.371	0.408	0.475	0.119	0.283

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
SVOCs (ug/L)										
1,2,4-Trichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Diphenylhydrazine	0	0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
2,4,6-Trichlorophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dichlorophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dimethylphenol	0	0	0	0	0	0	0	0	0	0
2,4-Dinitrophenol	0	0	0	0	0	0	0	0	0	0
2,4-Dinitrotoluene	0	0	0	0	0	0	0	0	0	0
2,6-Dinitrotoluene	0	0	0	0	0	0	0	0	0	0
2-Chloronaphthalene	0	0	0	0	0	0	0	0	0	0
2-Chlorophenol	0	0	0	0	0	0	0	0	0	0
2-Nitrophenol	0	0	0	0	0	0	0	0	0	0
3,3'-Dichlorobenzidine	0	0	0	0	0	0	0	0	0	0
4,6-Dinitro-2-methylphenol	0	0	0	0	0	0	0	0	0	0
4-Bromophenyl Phenyl Ether	0	0	0	0	0	0	0	0	0	0
4-Chlorophenyl-phenylether	0	0	0	0	0	0	0	0	0	0
4-Nitrophenol	0	0	0	0	0	0	0	0	0	0
Acenaphthene	0	0	0	0	0	0	0	0	0	0
Acenaphthylene	0	0	0	0	0	0	0	0	0	0
Anthracene	0	0	0	0	0	0	0	0	0	0
Benzidine	0	0	0	0	0	0	0	0	0	0
Benzo[a]anthracene	0	0	0	0	0	0	0	0	0	0
Benzo[a]pyrene	0	0	0	0	0	0	0	0	0	0
Benzo[b]fluoranthene	0	0	0	0	0	0	0	0	0	0
Benzo[g,h,i]perylene	0	0	0	0	0	0	0	0	0	0
Benzo[k]fluoranthene	0	0	0	0	0	0	0	0	0	0
Bis(2-chloro-1-methylethyl) Ether	0	0	0	0	0	0	0	0	0	0
Bis(2-chloroethoxy)methane	0	0	0	0	0	0	0	0	0	0
Bis(2-chloroethyl) Ether	0	0	0	0	0	0	0	0	0	0
Bis(2-ethylhexyl) Phthalate	0	0	0	0	0	0	0	0	0	0
Butylbenzyl Phthalate	0	0	0	0	0	0	0	0	0	0
Chrysene	0	0	0	0	0	0	0	0	0	0
Dibenz[a,h]anthracene	0	0	0	0	0	0	0	0	0	0
Diethyl Phthalate	0	0	0	0	0	0	0	0	0	0
Dimethyl Phthalate	0	0	0	0	0	0	0	0	0	0
Di-n-Butyl Phthalate	0	0	0	0	0	0	0	0	0	0
Di-n-octyl Phthalate	0	0	0	0	0	0	0	0	0	0
Fluoranthene	0	0	0	0	0	0	0	0	0	0
Fluorene	0	0	0	0	0	0	0	0	0	0
Hexachlorobenzene	0	0	0	0	0	0	0	0	0	0
Hexachlorobutadiene	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclopentadiene	0	0	0	0	0	0	0	0	0	0
Hexachloroethane	0	0	0	0	0	0	0	0	0	0
Indeno[1,2,3-cd]pyrene	0	0	0	0	0	0	0	0	0	0
Isophorone	0	0	0	0	0	0	0	0	0	0
Kepone	0	0	0	0	0	0	0	0	0	0
Naphthalene	0	0	0	0	0	0	0	0	0	0
Nitrobenzene	0	0	0	0	0	0	0	0	0	0
N-Nitrosodimethylamine	0	0	0	0	0	0	0	0	0	0
N-Nitroso-di-n-propylamine	0	0	0	0	0	0	0	0	0	0
N-Nitrosodiphenylamine	0	0	0	0	0	0	0	0	0	0
Nonylphenol	0	0	0	0	0	0	0	0	0	0
p-Chloro-m-cresol	0	0	0	0	0	0	0	0	0	0
Pentachlorophenol	0	0	0	0	0	0	0	0	0	0
Phenanthrene	0	0	0	0	0	0	0	0	0	0
Phenol	0	0	0	0	0	0	0	0	0	0
Pyrene	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
Total Metals (ug/L)										
Aluminum	33100	76300	139000	249000	81.3	244	205	334	147	261
Antimony	8.68	13.5	9.92	13.4	0.238	0.715	0.253	0.355	0.42	0.909
Arsenic	486	1020	765	1460	0	0	6.08	8.57	3.77	7.43
Barium	1340	2510	4800	9370	47.3	114	59.4	59.9	92	125
Beryllium	9.52	22.6	60.4	87.7	0	0	0	0	0	0
Boron	1870	2790	2010	2190	649	777	228	238	356	413
Cadmium	0.724	2.26	5.9	11.5	0	0	0	0	0	0
Calcium	112000	137000	193000	228000	24400	32000	123000	125000	32600	35700
Chromium	47.1	112	354	557	0	0	1.19	3.08	0	0
Chromium (III)	68	112	450	557	0	0	0	0	0	0
Cobalt	36.5	77.6	171	265	0	0	2.8	5.5	0	0
Copper	144	363	1000	1780	1.16	2.81	3.91	6.05	5.11	11
Hexavalent Chromium	0	0	5.3	16	5.7	17	0	0	3	12
Iron	12900	27800	46500	103000	349	1030	700	1410	336	481
Lead	58.1	152	309	579	0	0	0.49	1.47	0.0635	0.254
Lithium	270	507	424	579	1.8	5.39	330	330	160	320
Magnesium	26900	32500	39200	47000	8910	13300	4470	4880	8700	11200
Manganese	928	1280	1470	1850	80.3	241	216	542	102	175
Mercury	0.0473	0.189	2.12	5.39	0.049	0.147	0	0	0	0
Molybdenum	169	305	24.4	64.9	0	0	0	0	2	7
Nickel	57	126	381	625	2.83	7.55	15.6	20.3	2.98	8.4
Potassium	16200	23400	29600	44500	1310	1860	29300	30200	3410	3470
Selenium	0	0	71.1	144	0	0	5.36	10.6	0	0
Silver	0	0	0	0	0	0	0	0	0	0
Sodium	36500	76000	12500	16200	21100	22000	9850	9890	17200	19600
Thallium	3.12	7.96	23.3	46.4	0	0	0.079	0.141	0.0335	0.134
Vanadium	218	407	1000	1420	0	0	0	0	1.4	2.8
Zinc	92.2	228	512	943	1.83	5.5	8.75	16.9	9.4	14

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
VOCs (ug/L)										
1,1,1-Trichloroethane	0	0	0	0	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	0	0	0	0	0	0	0	0	0	0
1,1,2-Trichloroethane	0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethane	0	0	0	0	0	0	0	0	0	0
1,1-Dichloroethene	0	0	0	0	0	0	0	0	0	0
1,2-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,2-Dichloroethane	0	0	0	0	0	0	0	0	0	0
1,2-Dichloropropane	0	0	0	0	0	0	0	0	0	0
1,3-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
1,3-Dichloropropene, Total	0	0	0	0	0	0	0	0	0	0
1,4-Dichlorobenzene	0	0	0	0	0	0	0	0	0	0
2-Chloroethyl Vinyl Ether	0	0	0	0	0	0	0	0	0	0
Acrolein	0	0	0	0	0	0	0	0	0	0
Acrylonitrile	0	0	0	0	0	0	0	0	2.98	8.95
Benzene	0	0	0	0	0	0	0	0	0	0
Bromodichloromethane	0	0	0	0	0	0	0	0	0	0
Bromoform	0	0	0	0	0	0	0	0	0	0
Bromomethane	0	0	0	0	0	0	0	0	0	0
Carbon Tetrachloride	0	0	0	0	0	0	0	0	0	0
Chlorobenzene	0	0	0	0	0	0	0	0	0	0
Chloroethane	0	0	0	0	0	0	0	0	0	0
Chloroform	0	0	0	0	0	0	0	0	0	0
Chloromethane	0	0	0	0	0	0	0	0	0	0
cis-1,3-Dichloropropene	0	0	0	0	0	0	0	0	0	0
Dibromochloromethane	0	0	0	0	0	0	0	0	0	0
Ethylbenzene	0	0	0	0	0	0	0	0	0	0
m,p-Xylenes	0	0	0	0	0	0	0	0	0	0
Methylene Chloride	0	0	0	0	0	0	0	0	0	0
o-Xylene	0	0	0	0	0	0	0	0	0	0
Tetrachloroethene	0	0	0	0	0	0	0	0	0	0
Toluene	0	0	0	0	0	0	0	0	0	0
trans-1,2-Dichloroethene	0	0	0	0	0	0	0	0	0	0
trans-1,3-Dichloropropene	0	0	0	0	0	0	0	0	0	0
Trichloroethene	0	0	0	0	0	0	0	0	0	0
Trichlorofluoromethane	0	0	0	0	0	0	0	0	0	0
Vinyl Chloride	0	0	0	0	0	0	0	0	0	0
Xylenes, Total	0	0	0	0	0	0	0	0	0	0

Table 3
Statistical Summary of Constituents in Process Water
Bremo Power Station

	PZ-1 (North Pond)		PZ-2 (East Pond)		North Pond Toe Drain		Metals Pond		SWM Pond	
Source Water Type	Ash Dewatering Water				Toe Drain		Commingled Process and Stormwater			
Parameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
WQ/Other (ug/L)										
Alkalinity, Total	377000	430000	399000	420000	85000	110000	136000	136000	103000	113000
Ammonia	280	330	300	310	0	0	0	0	0	0
Ammonia Nitrogen	460	460	210	210	0	0	90	90	70	80
Biochemical Oxygen Demand	0	0	700	2000	200	700	0	0	0	0
Bromide	400	790	55	110	120	230	1560	3050	60	180
Chemical Oxygen Demand	643000	1170000	2510000	3920000	0	0	18400	22100	5430	16300
Chloride	14800	17000	4200	5500	11000	11800	1900	3800	14600	15000
Cyanide	0	0	0	0	0	0	6	12	0	0
Fluoride	480	600	83	130	30	100	500	500	15	44
Hardness	455000	476000	654000	764000	96100	130000	322000	330000	117000	128000
Nitrate	0	0	0	0	0	0	0	0	85	170
Nitrite	0	0	0	0	0	0	0	0	0	0
Nitrogen, Nitrate-Nitrite	10	40	41	83	53	120	20	40	70	170
Nitrogen, Total Kjeldahl	1130	1480	6320	11000	110	320	480	560	110	340
Oil & Grease, Total Rec	0	0	0	0	0	0	0	0	0	0
Phosphorus	1720	2930	8650	12900	7	20	10	20	30	60
Sulfate	40000	74000	45400	53000	894000	2610000	238000	255000	36600	44600
Sulfide	0	0	0	0	0	0	0	0	0	0
Total Dissolved Solids	460000	500000	479000	500000	192000	200000	472000	493000	152000	225000
Total Organic Carbon	0	0	0	0	0	0	6200	6200	3900	5200
Total Suspended Solids	2500000	5640000	14000000	24000000	44800	175000	2000	3000	18500	47600
Tributyltin	0	0	0	0	0	0	0	0	0	0

ug/L - microgram per liter
pci/L - picocuries per liter
mpn/100ml - most probable number per 100 millilitres
Zero Value used in place of all non-detected parameters

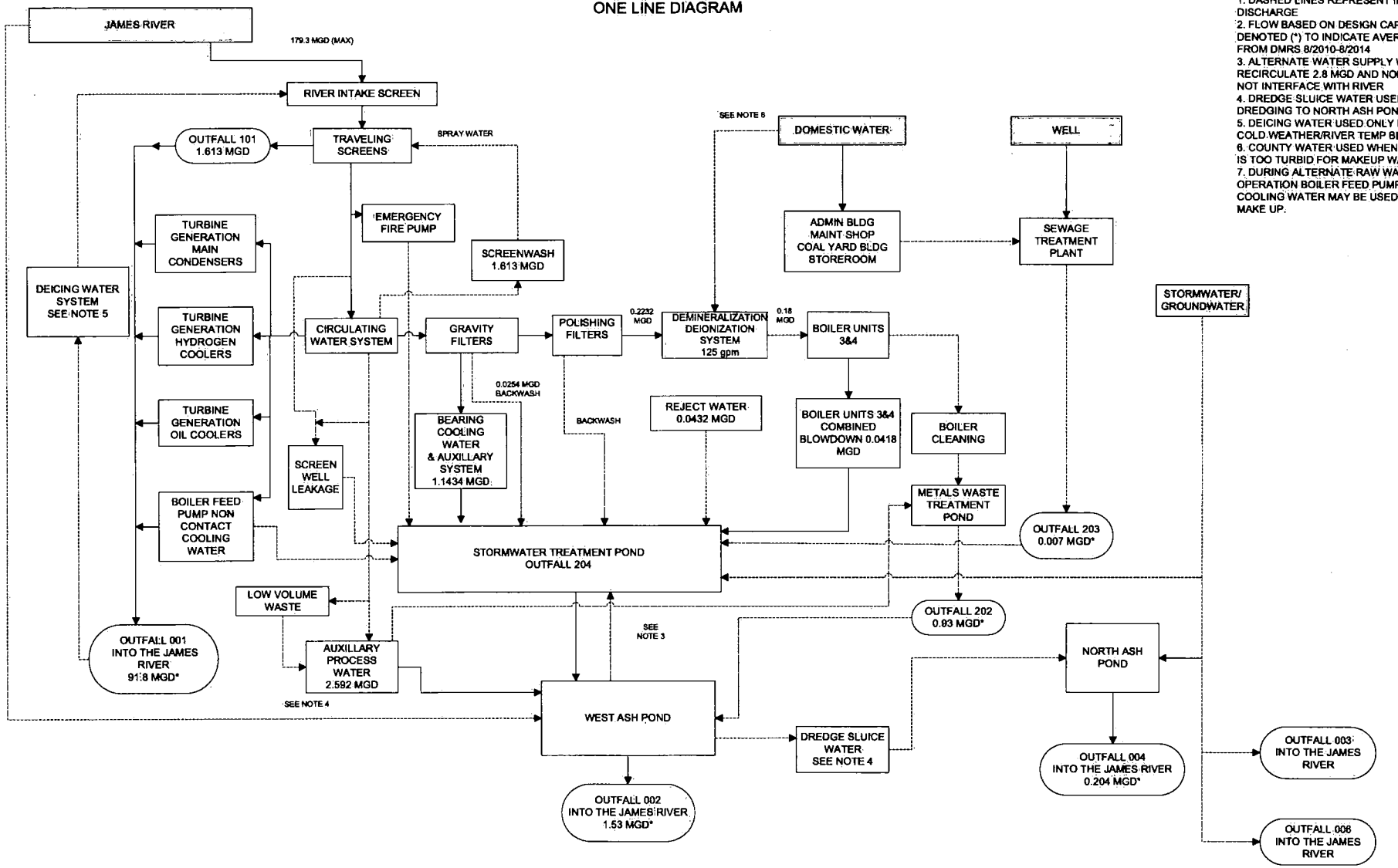
Table 4 Monitoring and Discharge Locations for Wastewaters Generated Prior to and Following Closure of the Bremo Power Station Ash Ponds				
Ref.	**Phase**	**Wastewater Type**	**Sampling Parameters and Location**	**Discharge Location**
1A	Interim Process Flow - Stage I	Stormwater Management Pond following rerouting to Outfall 002 or Outfall 004	The final effluent from the pretreatment system (solids removal) will be monitored for compliance with discharge limits for Outfalls 002 or 004.	Discharge to existing Outfall 002 or Outfall 004
1B	Interim Process Flow - Stage I	West Ash Pond contact stormwater and Ash Dewatering Water (ADW)	The final effluent from the pretreatment system (solids removal) will be monitored for TSS.	Effluent from the pretreatment system will be directed to Outfall 004 via the north end of the North Ash Pond
1C	Interim Process Flow - Stage I	North Ash Pond Impoundment Decant Water (IDW)	Monitoring will be performed at currently permitted location Outfall 004.	Discharge at currently permitted location Outfall 004
1D	Interim Process Flow - Stage I	Metals Pond pumped decant water (optional)	Pumped water will be monitored for compliance with Part IA limits for Outfall 202 prior to discharge to the West Ash Pond	Discharge to the West Ash Pond
2A	Interim Process Flow - Stage II	West Treatment Pond	Monitoring will be performed at the currently permitted location for Outfall 002.	Discharge at currently permitted location Outfall 002
2B	Interim Process Flow - Stage II	Stormwater Management Pond	Monitoring will be performed at the currently permitted location for Outfall 002.	Discharge at currently permitted location Outfall 002
2C	Interim Process Flow - Stage II	West Ash Pond contact stormwater and ADW	The final effluent from the pretreatment system (solids removal) will be monitored for TSS and enhanced treatment will be added as necessary for compliance with the discharge limits for Outfall 002.	Discharge to new West Treatment Pond
2D	Interim Process Flow - Stage II	Metals Pond pumped decant water	Pumped water will be monitored for compliance with Part IA limits for Outfall 202 prior to discharge to the new West Treatment Pond.	Discharge to new West Treatment Pond

Table 4 Monitoring and Discharge Locations for Wastewaters Generated Prior to and Following Closure of the Bremo Power Station Ash Ponds				
Ref.	**Phase**	**Wastewater Type**	**Sampling Parameters and Location**	**Discharge Location**
2E	Interim Process Flow - Stage II	Metals Pond contact stormwater and material dewatering water	Pumped water will be monitored prior to discharge to the new West Treatment Pond for compliance with Part IA limits for Outfall 202. Enhanced treatment will be added as necessary for compliance with the discharge limits at Outfall 002. Or pump and haul to off-site disposal.	Discharge to new West Treatment Pond; or pump and haul to off-site disposal
2F	Interim Process Flow - Stage II	North Ash Pond IDW during final decant prior to dewatering	Monitoring will be performed at currently permitted location Outfall 004 (TSS monitored at each foot of draw down for compliance with Part IA limits).	Discharge at currently permitted location Outfall 004
2G	Interim Process Flow - Stage II	North and East Ash Pond contact stormwater and ADW	The final effluent from the pretreatment system (solids removal and enhanced treatment as necessary) will be monitored for compliance with discharge limits.	Effluent from the pretreatment system may be directed to the new West Treatment Pond, the Stormwater Management Pond, or any of the following active Outfalls; 002, 003, 004, or 006.
3A	Final Process Flow	West Treatment Pond	Monitoring will be performed at the currently permitted location for Outfall 002.	Discharge at currently permitted location Outfall 002
3B	Final Process Flow	Non-contact stormwater from closed North and East Ash Ponds	No monitoring anticipated.	Discharge to stormwater Outfall 008 via the new dry stormwater detention area
3C	Final Process Flow	Non-contact stormwater from East Ash Pond perimeter road embankment	No monitoring anticipated.	Discharge to stormwater Outfall 007

APPENDIX I

Existing Conditions One-line Diagram

BREMO POWER STATION
STATION WATER FLOW
ONE LINE DIAGRAM



NOTES:

1. DASHED LINES REPRESENT INTERMITTENT DISCHARGE
2. FLOW BASED ON DESIGN CAPACITY UNLESS DENOTED (*) TO INDICATE AVERAGE FLOW FROM DMRS 8/2010-8/2014
3. ALTERNATE WATER SUPPLY WILL RECIRCULATE 2.8 MGD AND NORMALLY WILL NOT INTERFACE WITH RIVER
4. DREDGE SLUICE WATER USED ONLY WHEN DREDGING TO NORTH ASH POND
5. DEICING WATER USED ONLY DURING SEVERE COLD WEATHER/RIVER TEMP BELOW 36 F
6. COUNTY WATER USED WHEN RIVER WATER IS TOO TURBID FOR MAKEUP WATER
7. DURING ALTERNATE RAW WATER SYSTEM OPERATION BOILER FEED PUMP NON CONTACT COOLING WATER MAY BE USED AS SYSTEM MAKE UP.

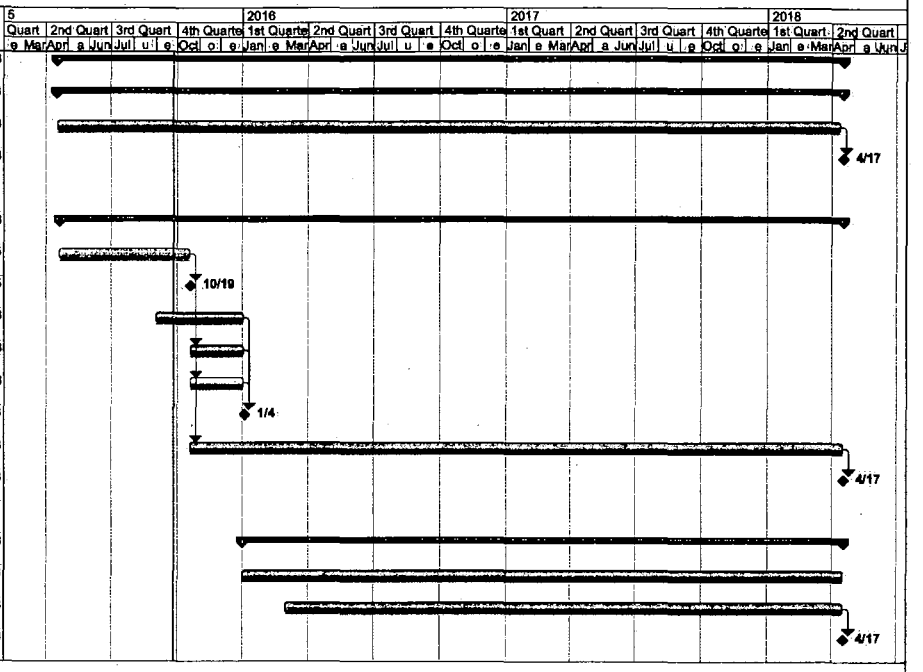
REVISED 1/2015

APPENDIX II

Tentative Closure Construction Schedule

Bremo Power Station CCR Pond Closure Project - Construction and VPDES Schedule

ID		Task Name	Start	Finish
1		**Construction Schedule**	**Fri 4/17/15**	**Tue 4/17/18**
2		**Regulatory Schedule**	**Fri 4/17/15**	**Tue 4/17/18**
3		Closure Timeframe for CCR Impoundments	Fri 4/17/15	Thu 4/12/18
4		Closure Date from EPA CCR Rule	Tue 4/17/18	Tue 4/17/18
5				
6		**West Ash Pond Clean Closure Schedule (Includes Metals Pond)**	**Mon 4/20/15**	**Tue 4/17/18**
7		Hydraulic Dredging of CCR to North Pond and Decanting	Mon 4/20/15	Sun 10/18/15
8		Inactivate CCR Ponds (West and North Ash Ponds)	Mon 10/19/15	Mon 10/19/15
9		**Stage I - Stormwater Management Pond w/TSS control to Outfall 002**	Tue 9/1/15	Fri 1/1/16
10		**Stage I - Contact Stormwater from West Ash Pond w/TSS control to North Ash Pond (Outfall 004)**	Mon 10/19/15	Fri 1/1/16
11		Repurposing of the West Ash Pond	Mon 10/19/15	Fri 1/1/16
12		**Stage I - Routing of Stormwater Management Pond to West Treatment Pond (Outfall 002)**	Mon 1/4/16	Mon 1/4/16
13		Clean Closure of the remaining West Ash Pond and Metals Pond	Mon 10/19/15	Mon 4/16/18
14		West Ash Pond and Metals Pond Clean Closed	Tue 4/17/18	Tue 4/17/18
15				
16		**North and East Ash Pond Closure Schedule**	**Fri 1/1/16**	**Tue 4/17/18**
17		**Stage II - Contact Stormwater/Dewatering Water from North/East Ponds w/TSS Control (Outfall TBD)**	Fri 1/1/16	Mon 4/16/18
18		Closure of the North and East Ash Ponds	Tue 3/1/16	Mon 4/16/18
19		North and East Ash Ponds Closed	Tue 4/17/18	Tue 4/17/18



Project: VPDES Schedule Ver. 1.2
Date: Fri 9/25/15

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

APPENDIX III

Post-construction (Final) One-line Diagram

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates Inc.
2108 W. Laburnum Avenue, Suite 200
Richmond, VA 23227 USA
Tel: (804) 358-7900
Fax: (804) 358-2900

Golder Associates

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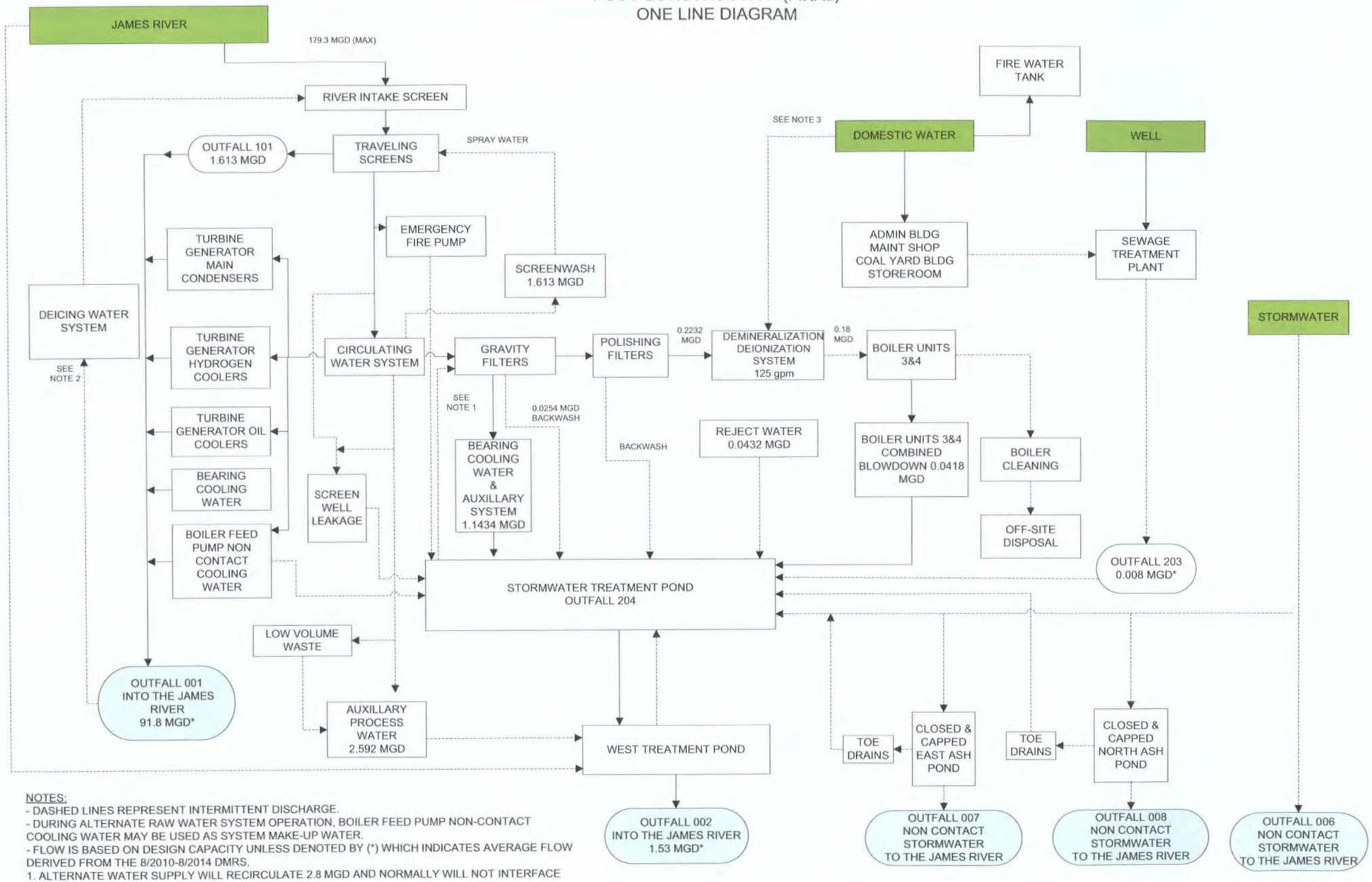
BREMO POWER STATION
STATION WATER FLOW
POST CONSTRUCTION (FINAL)
ONE LINE DIAGRAM



NOTES:
- DASHED LINES REPRESENT INTERMITTENT DISCHARGE.
- DURING ALTERNATE RAW WATER SYSTEM OPERATION, BOILER FEED PUMP NON-CONTACT COOLING WATER MAY BE USED AS SYSTEM MAKE-UP WATER.
- FLOW IS BASED ON DESIGN CAPACITY UNLESS DENOTED BY (*) WHICH INDICATES AVERAGE FLOW DERIVED FROM THE 8/2010-8/2014 DMRS.

1. ALTERNATE WATER SUPPLY WILL RECIRCULATE 2.8 MGD AND NORMALLY WILL NOT INTERFACE WITH RIVER.
2. DEICING WATER IS USED ONLY DURING SEVERE COLD WEATHER.
3. COUNTY WATER IS USED WHEN RIVER WATER IS TOO TURBID FOR USE AS MAKE-UP WATER.

REVISED 9/2015

Dominion Resources Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
dom.com

Dominion®

CERTIFIED MAIL
RETURN RECIEPT REQUESTED

December 4, 2015

DEQ VALLEY
DEC 0 9 2015
To:
Date:

Ms. Amy Owens
Regional Director
Department of Environmental Quality
Valley Regional Office
4411 Early Road
Harrisonburg, Virginia 22801

RE: Dominion – Bremo Power Station VPDES Permit No. VA0004138
Supplemental Information to Permit Application Addendum (Rev.1)

Dear Ms. Owens:

Dominion's application for renewal of the subject permit was submitted to your office on January 14, 2015. An addendum to the application was submitted on August 6, 2015 in order to incorporate changes in wastewater management that are anticipated to result from closure of the station's existing ash ponds. The addendum was revised based on discussions with DEQ staff and was resubmitted on October 6, 2015.

The enclosed documentation is being provided as a supplement to the October 6, 2015 submittal and proposes the addition of a new non-contact stormwater outfall (proposed outfall 009). The new outfall will be used to drain surface water from the former West Ash Pond area following the completion of closure activities. The attached documents include a brief narrative description of the additional outfall and drawings that have been updated to include the proposed outfall 009.

Should you have any questions or require additional information, please contact Ken Roller at (804) 273-3494 or Kenneth.Roller@dom.com.

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

CERTIFICATION

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 the 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.

NAME: David A. Craymer

OFFICIAL TITLE: Vice President, Power Generation System Operations

PHONE NO.: (804) 273-3685

SIGNAURE: _____

DATE SIGNED: 12/7/15

DEQ VALLEY

DEC 0 9 2015

To: _____

Date: _____

NARRATIVE DESCRIPTION OF PROPOSED OUTFALL

Outfall 009 – Former West Ash Pond Area

Following the completion of clean closure activities on or before April 17, 2018, the former West Ash Pond area will be eliminated from the industrial area, with the post-construction (non-contact) stormwater discharged via a new surface water outfall (proposed outfall 009) located on the northern side of the former West Ash Pond area and the new West Treatment Pond (see Drawing 6). Outfall 009 will be the outlet of a dry detention (non-contact) stormwater area designed to attenuate flow velocities in an existing drainage swale leading to the exiting roadside ditch (Bremo Road). The Bremo Road roadside ditch drains into Holman Creek which is a tributary to the James River. Information for outfall 009 includes the following:

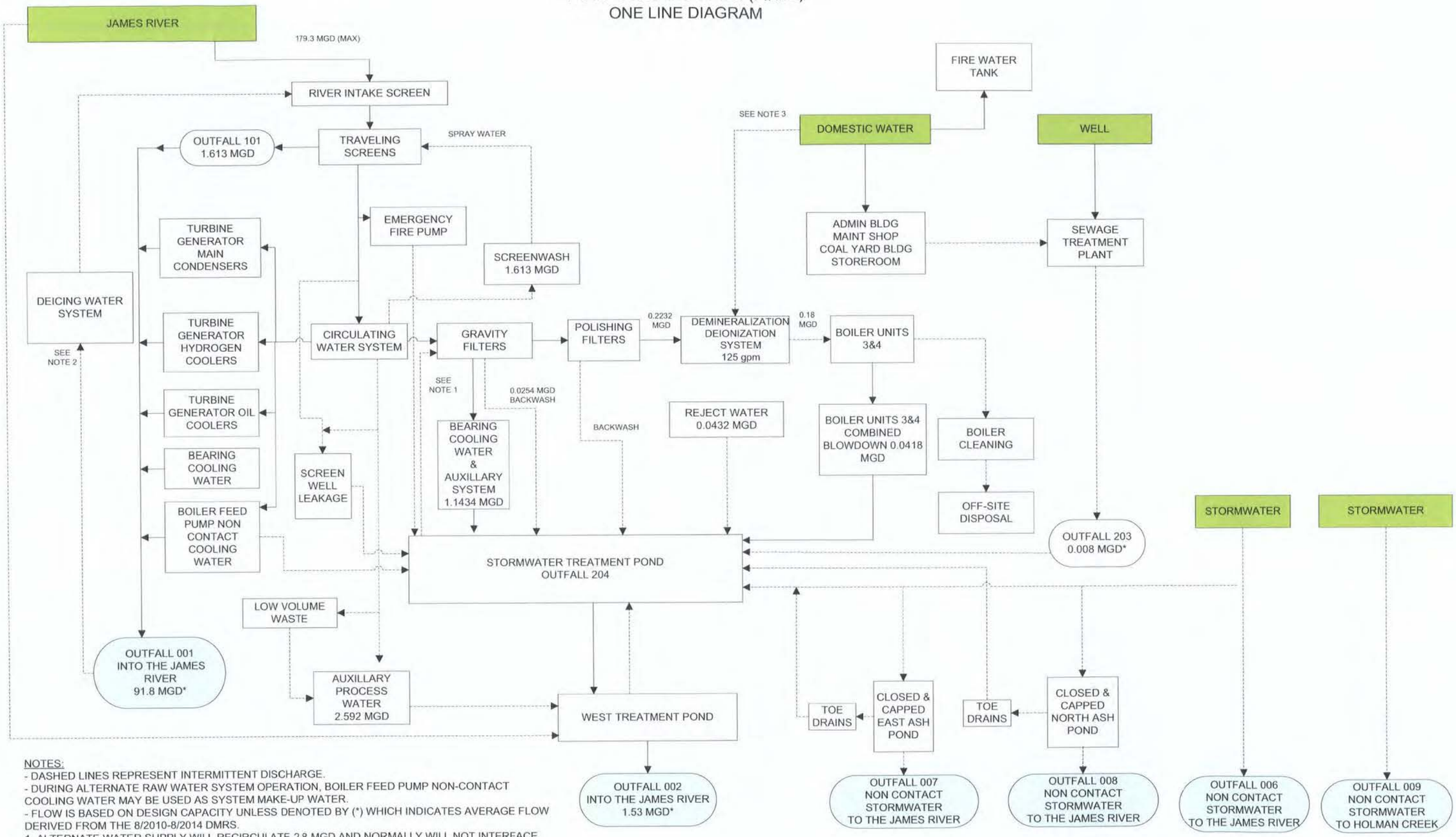
Physical Location:
Latitude: N 037° 42' 45"
Longitude: W 078° 17' 28"

Drainage Area: 23.7 acres

Area description: The drainage area post-construction ground cover condition is managed turf with a gentle slope graded towards the north to the existing grassed swale area which lies between Bremo Road and the former West Ash Pond area and the new West Treatment Pond. Overland flow originates from the former West Ash Pond area and drains to an existing grass swale where it will enter the dry detention (non-contact) stormwater area prior to its release to the existing Bremo Road roadside ditch which drains to Holman Creek. The physical location of outfall 009 is the end of culvert that drains to the existing roadside ditch.

DEQ VALLEY
DEC 0 9 2015
To:
Date:

BREMO POWER STATION
STATION WATER FLOW
POST CONSTRUCTION (FINAL)
ONE LINE DIAGRAM



NOTES:
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2. DEICING WATER IS USED ONLY DURING SEVERE COLD WEATHER.
3. COUNTY WATER IS USED WHEN RIVER WATER IS TOO TURBID FOR USE AS MAKE-UP WATER.

DEQ VALLEY
DEC 09 2015
T
Date

REVISED 11/2015

SAMPLING LOCATIONS	
OUTFALL	DESCRIPTION
001	END OF PIPE
002	WIER OF RISER
203	STP WIER
204	END OF PIPE

DEQ VALLEY
DEC 09 2015
To:
Date:

REV	DATE	REVISION DESCRIPTION	DES	CADD	CHK	RVW
1	11/24/15	OUTFALL 009 ADDED	JRD	ABM	ATN	JRD

PROJECT
DOMINION
BREMO POWER STATION
CCR IMPOUNDMENT CLOSURE
VPDES PERMIT APPLICATION AMENDMENT

TITLE
PROPOSED OUTFALL LOCATION MAP

Golder Associates

PROJECT No.		15-20347	FILE No.	1520347H06B
DESIGN	JRD	06/27/15	SCALE	AS SHOWN
CADD	ATN	06/27/15		
CHECK	ATN	06/30/15	DRAWING 6	
REVIEW	JRD	06/30/15		

250 0 250 500
SCALE FEET