

OMB Control Number: 2040-XXXX
Approval Expires: 05/dd/2013

Plant ID: Insert Plant ID
Plant Name: Insert Plant Name



Steam Electric Questionnaire

PART A - STEAM ELECTRIC POWER PLANT OPERATIONS

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Plant ID: Insert Plant ID
Plant Name: Insert Plant Name

PART A. STEAM ELECTRIC POWER PLANT OPERATIONS

INSTRUCTIONS

Complete Part A of the questionnaire for your plant. As you are completing the electronic form, note the following: When you enter your plant name and plant ID on the Part A Table of Contents tab, all name and ID fields throughout Part A will automatically populate. Refer to the overall questionnaire instructions, the glossary, and the acronym list for assistance with completing Part A.

Please provide all free response answers in the highlighted yellow areas. Throughout Part A, you may need to make copies of certain sections/questions. Instructions are provided throughout Part A regarding making copies. Note that outfall number or steam electric generating unit ID must be populated on the copied tab or section, located in the upper right corner under "Plant ID" and "Plant Name", in order to correlate the requested information with the correct outfall or steam electric generating unit.

Where the questionnaire indicates to provide an attachment, an electronic format (e.g., PDF) is preferred; however, hardcopies are also acceptable.

Use the Comments tab at the end of Part A to do the following: provide additional information as requested in certain questions within Part A; indicate atypical data (e.g., if 2009 information is not representative of normal operations); and note methods used to make best engineering estimates in the event that exact data are not available.

Plant ID: Insert Plant ID
Plant Name: Insert Plant Name

Part: A
Section Title: 1.1. Plant Contact Information
Instructions: Throughout Section 1.1 (Questions A1-1 to A1-5), provide information requested on plant contacts. Please provide all free response answers in the highlighted yellow areas.

CBI?

Yes

A1-1. Provide the physical plant address in the yellow spaces provided below.

Plant Name:

Street Address:

City:

State: Zip Code:

CBI?

Yes

A1-2. Provide the name, title, telephone and fax numbers, and e-mail address of the primary contact for technical information supplied in this questionnaire.

Primary Technical Contact Name:

Primary Technical Contact Title:

Email:

Street Address:

City:

State: Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time): am/pm

to am/pm

CBI?

Yes

A1-3. Provide the name, title, telephone and fax numbers, and e-mail address of the secondary contact for technical information supplied in this questionnaire.

Secondary Technical Contact Name:

Secondary Technical Contact Title:

Email:

Street Address:

City:

State: ▼ Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time): am/pm ▼
to am/pm ▼

CBI?

Yes

A1-4. Provide the name, title, telephone and fax numbers, and e-mail address of the primary contact for economic/financial information supplied in this questionnaire.

Primary Economic/Financial Contact Name:

Primary Economic/Financial Contact Title:

Email:

Street Address:

City:

State: ▼ Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time): am/pm ▼
to am/pm ▼

CBI?

Yes

A1-5. Provide the name, title, telephone and fax numbers, and e-mail address of the secondary contact for economic/financial information supplied in this questionnaire.

Secondary Economic/Financial Contact Name:

Secondary Economic/Financial Contact Title:

Email:

Street Address:

City:

State: ▼

Zip Code:

Telephone Number:

Fax Number:

Convenient time to call between (Eastern Time): am/pm ▼

to am/pm ▼

Plant ID: Insert Plant ID
Plant Name: Insert Plant Name

Part: A
Section Title: 1.2. General Plant Operating Characteristics
Instructions: Throughout Section 1.2 (Questions A1-6 to A1-14), provide information requested on general *plant* operating characteristics. Please provide all free response answers in the highlighted yellow areas.

CBI?

Yes

A1-6. Is the plant permanently retired or will it be permanently retired by December 31, 2011?

- Yes (Stop)
- No (Continue)



**STOP! IF YOU ANSWERED YES TO QUESTION A1-6,
DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

CBI?

Yes

A1-7. Does the plant generate or have the potential to generate electricity from a steam electric generating unit (i.e., a generating unit that utilizes a thermal cycle employing the steam/water system as the thermodynamic medium (steam turbine))? [NOTE: Combined cycle systems with at least one associated steam turbine are considered steam electric generating units.]

- Yes (Continue)
- No, this plant does not generate or have the potential to generate electricity from a steam electric generating unit. (Stop)



**STOP! IF YOU ANSWERED NO TO QUESTION A1-7,
DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

CBI?

Yes

A1-8. Indicate all of the fossil or nuclear fuels that the plant used to generate electricity in 2009 (refer to Table A-17 for a further breakdown of fossil-type fuels in the "Type of Fuel" tab). [NOTE: Do **NOT** include fuels only used for start up or emergency generators when answering this question.]

- Coal
- Oil
- Gas
- Petroleum Coke
- Nuclear Fuel
- None (the plant did not use fossil or nuclear fuels other than for start up in 2009)



**STOP! IF YOU ANSWERED NONE IN QUESTION A1-8,
DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

CBI?

Yes

A1-9. Identify how the plant uses/handles the electricity generated and indicate the percent of **electricity** by end use/handling. [Check all boxes that apply.]

- Used on site _____ %
- Distributed for sale _____ %
- Other _____ %

If "Other" was selected, use the yellow space below to provide a description of electricity end use/handling.

CBI?

Yes

A1-10. Provide the primary, secondary, and tertiary six-digit North American Industry Classification System (NAICS) codes that best describe the plant's activities. Refer to the U.S. Census Bureau's website to identify appropriate NAICS codes (<http://www.census.gov/eos/www/naics/>).

- Primary NAICS: _____
- Secondary NAICS: _____
- Tertiary NAICS: _____

CBI?

Yes

A1-11. Is the generation of electricity the *primary purpose* (i.e., the predominant source of revenue and principal reason for operation) of the plant?

Yes

No, specify the primary purpose of the plant to the right:



**STOP! IF YOU ANSWERED NO IN QUESTION A1-11,
DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.**

CBI?

Yes

A1-12. Identify how the plant uses steam generated at the plant and indicate the percent of steam by use. [Check all boxes that apply.]

Electricity Generation

Heating and/or Cooling

Other

_____%
_____%
_____%

If "Other" was selected, use the space below to provide a description of the use for steam.

CBI?

Yes

A1-13. Provide the total plant nameplate electric generating capacity, as reported in U.S. DOE/EIA Form 860, schedule 3, line 1, and the total electric net summer and winter capacities.

Nameplate capacity _____ MW

Net summer capacity _____ MW

Net winter capacity _____ MW

CBI?

Yes

A1-14. In Table A-1, provide the total net and *gross electrical generation* for all electric generating units at the plant during calendar years 2007 through 2009.

Table A-1. Net and Gross Plant Electrical Generation for 2007-2009

Calendar Year	Net Electrical Generation (MW-hrs)	Gross Electrical Generation (MW-hrs)
2007	MW-hrs	MW-hrs
2008	MW-hrs	MW-hrs
2009	MW-hrs	MW-hrs

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 2.1. Plant Identification and Information on Permits and Studies
Instructions: Throughout Section 2.1 (Question A2-1 to A2-4), provide information requested on plant identity, permits, and studies. Please provide all free response answers in the highlighted yellow areas.

CBI? Yes **A2-1.** Provide the identification code of this plant as reported on U.S. DOE/EIA Form-860, "Annual Electric Generator Report," schedule 2, line 1.
 EIA Plant Identification Code: Check here if not applicable

CBI? Yes **A2-2.** Provide the identification code of this plant as used when reporting to the Rural Utilities Service (RUS).
 RUS Plant Identification Code: Check here if not applicable

CBI? Yes **A2-3.** Did the plant conduct any Environmental Assessment (EA) or Environmental Impact Statement (EIS) studies on receiving waters or pond/impoundments reported in Table A-4?
 Yes (Continue)
 No (Skip to Question A2-4)
 If yes, please attach results from the study(ies).
 I have attached the results from the study(ies)
 I did not attach the results from the study(ies). Explain why:

CBI? Yes **A2-4.** In Table A-2, provide a list of the plant's most recently approved permits that are associated with industrial activities. If the plant has more than one ID for a permit type, list all IDs in the space provided. Also indicate if the plant has a new/pending permit under development.

Note: Do **NOT** include the following types of permits: permits required for construction of wastewater and/or sanitary sewage facilities, erosion and sediment control permits associated with construction activities, temporary and general permits for hydrostatic testing water, water obstruction and encroachment permits, and/or water allocation permits.

Table A-2. Permit Information

Permit Type	Permit ID(s)	Approval Date		Expiration Date		New/Pending Permit is Under Development
		Month	Year	Month	Year	
National Pollutant Discharge Elimination System (NPDES)		Month	Year	Month	Year	Yes/No
		Month	Year	Month	Year	
		Month	Year	Month	Year	
Resource Conservation and Recovery Act (RCRA)		Month	Year	Month	Year	Yes/No
		Month	Year	Month	Year	
		Month	Year	Month	Year	
Stormwater		Month	Year	Month	Year	Yes/No
		Month	Year	Month	Year	
		Month	Year	Month	Year	
Air Pollution Operating		Month	Year	Month	Year	Yes/No
		Month	Year	Month	Year	
		Month	Year	Month	Year	
Underground Injection Control (UIC)		Month	Year	Month	Year	Yes/No
		Month	Year	Month	Year	
		Month	Year	Month	Year	

If the plant does not have an individual NPDES permit, skip to Section 3.

CBI?

Yes

A2-7. Does the outfall release water to a discharge canal prior to discharging to surface water?

- Yes
- No

CBI?

Yes

A2-8. Provide the receiving surface water name and type of surface water. If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

Receiving Surface Water Name:

Type of Surface Water: Type of Receiving Water ▼ Other, specify:

If the receiving surface water is unnamed, provide the name(s) of the next receiving water downstream with a designated name.

CBI?

Yes

A2-9. Has a mixing zone been applied to the outfall?

- Yes
- No

CBI?

Yes

A2-10. In Table A-3, provide the percent contribution that each wastewater listed has to the total outfall flow.

Table A-3. Wastewaters Discharged Through Outfall

Wastewater	Percent Contribution of Outfall Flow
Cooling Water	
Fly Ash Sluice	
Bottom Ash Sluice	
FGD Scrubber Wastewater (slurry blowdown or scrubber purge)	
Leachate from Coal Combustion Residue Landfills or Ponds/Impoundments	
Coal Pile Runoff	
Metal Cleaning Waste	
Storm Water	
Other	
Total	100%

Outfall is used for emergency discharges only. (Respondent still required to answer Table A-3.)

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 3. Ponds/Impoundments

Instructions: Throughout Section 3 (Questions A3-1 to A3-3), provide information for all *ponds/impoundments* the plant has or is currently constructing/installing or planning to construct/install by December 31, 2020.

CBI? Yes **A3-1.** Does the plant have or is the plant currently constructing/installing or planning to construct/install by December 31, 2020 any ponds/impoundments used for the storage, treatment, and/or disposal of *process wastewater*, *residues*, or by-products (including *sludge* or water streams containing residues or by-products)?

Note: This includes ponds/impoundments located on non-adjointing property that are under the operational control of the plant.

- Yes (Continue)
- No (Skip to Section 4)

CBI? Yes **A3-2.** In Table A-4 below list all pond/impoundment units located at the plant, or pond/impoundments the plant is currently constructing/installing or planning to construct/install by December 31, 2020, including those located on non-adjointing property, used for storage, treatment, and/or disposal of process wastewater, residues, or by-products (including sludge or water streams containing residues or by-products). For each pond/impoundment unit, EPA assigned an ID number (e.g., SPD-1, SPD-2) in Table A-4, which will be used throughout the remainder of the survey. In the "Plant Designation" column, provide the plant's name for each pond/impoundment unit.

Additionally, provide the latitude and longitude at the pond outlet (see glossary), the closest distance from the pond/impoundment unit to the nearest surface water, the year the pond/impoundment unit was brought online (or is planned to be brought online), and indicate whether the pond/impoundment is lined or unlined and whether leachate (see glossary) is collected from the pond/impoundment (e.g., the pond/impoundment has a leachate collection system or other means for collecting leaks or seepage, etc.). Note: If the pond/impoundment does not have a pond outlet, provide the latitude and longitude corresponding to the emergency outlet for the pond/impoundment.

Table A-4. Identification of Plant Pond/Impoundment Units

Pond/ Impoundment Unit ID	Plant Designation	Latitude and Longitude at Pond Outlet			Is the Pond Lined?	Is Leachate (including Leaks or Seepage) Collected?	Closest Distance to Nearest Surface Water (ft)	Year Initially Brought Online Or Planned to be Brought Online	Is the Pond/ Impoundment Inactive?
		deg	min	sec					
Active/Inactive/Open Pond/Impoundment Units									
SPD-1		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-2		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-3		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-4		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-5		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-6		Lat:				Yes/No	Yes/No		Yes/No
		Long:							
SPD-7		Lat:				Yes/No	Yes/No		Yes/No
		Long:							

SPD-8		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-9		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-10		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-11		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-12		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-13		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
SPD-14		Lat:					Yes/No	▼	Yes/No	▼			Yes/No	▼
		Long:												
Retired/Closed Pond/Impoundment Units														
RET-SPD-1		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
RET-SPD-2		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
RET-SPD-3		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
RET-SPD-4		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
Planned Pond/Impoundment Units														
SPD-A		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
SPD-B		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
SPD-C		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
SPD-D		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												
SPD-E		Lat:					Yes/No	▼	Yes/No	▼				
		Long:												

CBI? Yes **A3-3.** In Table A-5 below, indicate all process wastewater, residues, or by-products (or sludges or water streams containing the wastes, residues or by-products) that are stored, treated, and/ or disposed of in each pond/impoundment unit identified in Table A-4. [Check all boxes that apply.] For solid waste and process wastewater not listed in the checkboxes or the drop down menu provide the name and description in the yellow box provided. Do not include treatment chemicals that are added to the pond/impoundment.

Table A-5. Wastes Stored or Disposed of in Plant Pond/Impoundment Units

Pond/ Impoundment Unit ID	Solid Waste		Process Wastewater	
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
		<input type="checkbox"/> Solids from Dry FGD		
	▼ Other, specify:			Other, specify:
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
		<input type="checkbox"/> Solids from Dry FGD		
	▼ Other, specify:			Other, specify:
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
		<input type="checkbox"/> Solids from Dry FGD		
	▼ Other, specify:			Other, specify:
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
		<input type="checkbox"/> Solids from Dry FGD		
	▼ Other, specify:			Other, specify:
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	
Other, specify:			Other, specify:	

Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Solids from Dry FGD			
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Solids from Dry FGD			
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Solids from Dry FGD			
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Solids from Dry FGD			
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Pond ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material	Process Wastewaters	▼ Process Wastewaters
	<input type="checkbox"/> Solids from Dry FGD			
	Other, specify:		Other, specify:	
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		
Other, specify:		Other, specify:		

Pond ID	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	Process Wastewaters Process Wastewaters Process Wastewaters	Process Wastewaters Process Wastewaters Process Wastewaters
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	Process Wastewaters Process Wastewaters Process Wastewaters	Process Wastewaters Process Wastewaters Process Wastewaters
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	Process Wastewaters Process Wastewaters Process Wastewaters	Process Wastewaters Process Wastewaters Process Wastewaters
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
Pond ID	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	Process Wastewaters Process Wastewaters Process Wastewaters	Process Wastewaters Process Wastewaters Process Wastewaters
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	
	Other, specify:		Other, specify:	

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 4. Landfills

Instructions: Throughout Section 4 (Questions A4-1 to A4-3), provide information for *landfills* (see glossary) the plant has or is currently constructing/installing or planning to construct/install by December 31, 2020.

Note: This includes landfills located on non-adjoining property that are under the operational control of the plant. This also includes landfills, within 20 miles, owned/operated by the plant's ultimate parent firm, for the purpose of storing/disposing of process wastewaters, residues, or by-products from the plant.

CBI?
 Yes

A4-1. Does the plant have or is the plant currently constructing/installing or planning to construct/install by December 31, 2020 any landfills used for the storage or disposal of *process wastewater*, *residues*, or by-products?

- Yes (Continue)
 No (Skip to Section 5)

CBI?
 Yes

A4-2. In Table A-6 below, list all landfills located at the plant, or landfills the plant (or ultimate parent firm) is currently constructing/installing or planning to construct/install by December 31, 2020, including those located on non-adjoining property, used for storage or disposal of process wastewater, residues, or by-products from the plant. For each landfill, EPA assigned an ID number (e.g., LANDFILL-1, LANDFILL-2) in Table A-6, which will be used throughout the remainder of the survey. In the "Plant Designation" column, provide the plant's name for each landfill. Additionally, provide the latitude and longitude at the center of the landfill, the closest distance from the landfill to the nearest surface water, the year the landfill was brought online (or is planned to be brought online), and indicate whether the landfill is lined or unlined and whether *leachate* is collected from the landfill (i.e., the landfill has a *leachate collection system* or other collection system).

Table A-6. Identification of Plant Landfills

Landfill ID	Plant Designation	Latitude and Longitude at Center of Landfill			Is the Landfill Lined?	Is Leachate Collected?	Closest Distance to Nearest Surface Water (ft)	Year Initially Brought Online Or Planned to be Brought Online	Is the Landfill Inactive?
		deg	min	sec					
Active/Inactive/Open Landfills									
LANDFILL-1		Lat:			Yes/No	Yes/No			Yes/No
		Long:							
LANDFILL-2		Lat:			Yes/No	Yes/No			Yes/No
		Long:							
LANDFILL-3		Lat:			Yes/No	Yes/No			Yes/No
		Long:							
LANDFILL-4		Lat:			Yes/No	Yes/No			Yes/No
		Long:							

Retired/Closed Landfills										
RET- LANDFILL-1		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
RET- LANDFILL-2		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
RET- LANDFILL-3		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
RET- LANDFILL-4		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
Planned Landfills										
LANDFILL-A		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
LANDFILL-B		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
LANDFILL-C		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								
LANDFILL-D		Lat:				Yes/No	▼	Yes/No	▼	
		Long:								

CBI?

Yes

A4-3. In Table A-7 below, indicate all *process wastewater*, *residues* or by-products that are stored or disposed of in each landfill identified in Table A-6. [Check all boxes that apply.] For solid waste not listed in the checkboxes provide the name and description in the yellow box provided.

Table A-7. Wastes Stored or Disposed of in Landfills

Landfill ID	Waste Stored or Disposed of in Landfill	
Landfill ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material
		<input type="checkbox"/> Solids from Dry FGD
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
Landfill ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material
		<input type="checkbox"/> Solids from Dry FGD
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
Landfill ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material
		<input type="checkbox"/> Solids from Dry FGD
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	
Landfill ID	<input type="checkbox"/> Boiler Slag	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum)
	<input type="checkbox"/> Bottom Ash	<input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic
	<input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Pozzolanic Material
		<input type="checkbox"/> Solids from Dry FGD
	Other, specify:	
	Other, specify:	
	Other, specify:	
	Other, specify:	

		<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	
Landfill ID	▼	Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	
Landfill ID	▼	Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	
Landfill ID	▼	Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD	
Landfill ID	▼	Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		
		Other, specify: _____		

	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	Landfill ID <input type="text"/>	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD
	Other, specify: _____ Other, specify: _____ Other, specify: _____ Other, specify: _____		
	<input type="checkbox"/> Boiler Slag <input type="checkbox"/> Bottom Ash <input type="checkbox"/> Fly Ash	Landfill ID <input type="text"/>	<input type="checkbox"/> FGD Calcium Sulfate (Gypsum) <input type="checkbox"/> FGD Calcium Sulfite – Not Pozzolanic <input type="checkbox"/> FGD Pozzolanic Material <input type="checkbox"/> Solids from Dry FGD
	Other, specify: _____ Other, specify: _____ Other, specify: _____ Other, specify: _____		

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A

Section Title: 5. Plant Property and Water Balance

Instructions: Throughout Section 5 (Questions A5-1 to A5-3), provide information requested on plant property and water balance. Please provide all free response answers in the highlighted yellow areas.

CBI?
 Yes

A5-1. Provide the geographical coordinates of the plant (degrees, minutes, seconds) as reported to EIA on U.S. DOE/EIA Form-860 (2007), schedule 2, line 6.

Note: Geographical coordinates are not required for any plants that have any nuclear units on site.

Geographical coordinates not provided, nuclear generating unit(s) located at the plant.

Coordinate	Degrees	Minutes	Seconds
Latitude			
Longitude			

CBI?
 Yes

A5-2. Attach an aerial map showing the property boundary of the *plant* that shows buildings, *ponds/impoundments*, *landfills*, and other significant features of the plant. Provide as many maps as necessary. Number each map diagram in the upper right corner; the first map should be numbered MAP-1, the second MAP-2, etc. Include the plant name and plant ID in the upper right hand corner of each diagram. If there is one or more nuclear generating units on-site, an aerial map is NOT required.

Diagram is attached.

Diagram not attached because nuclear unit(s) on-site.

CBI? Yes

A5-3. Attach a water balance diagram for the plant that shows all sources of water, plant *process operations*, process wastewaters generated and how they are handled/*treated*, flow rates of all water streams, and all outfalls at the plant. Specific instructions for the diagram are provided in the checklist below.

NOTE: You may use an existing diagram, such as a water balance diagram included in the plant's NPDES Form 2C, and mark the additional required information on the diagram by hand. You may also use a diagram from previous years as long as the diagram is still representative of current operations.

Provide as many diagrams as necessary to convey the information requested in the checklist below. Number each block diagram in the upper right corner; the first block diagram should be numbered WB-1, the second WB-2, etc. Include the plant name and plant ID in the upper right hand corner of the diagram.

 Diagram is attached.

Block Diagram Checklist

Mark the boxes below to verify that you have completed each checklist item...

- Include the water balance diagram number, plant name, and plant ID on the diagram.
- Show and label all water sources (e.g., lakes and rivers), *process wastewater* generated by each steam electric generating unit and process operation, and outfalls. Use the codes provided in the Codes Tables tab. Effluent streams may include process wastewater and *sludges*.

- Identify all *wastewater treatment systems* used to treat the process wastewaters generated by the steam electric generating units. Represent the wastewater treatment systems as a block or other shape. Use EPA-assigned numbers from other parts of the questionnaire if applicable. If the wastewater treatment system does not have an EPA-assigned number, use the plant-designated name for the wastewater treatment system.
- Identify the final destination of the *treated* wastewater and process wastewater (e.g., treated wastewater effluent to *POTW* or surface waters; solid wastes to on- or off-site destinations). Use codes provided in the Codes Table tab.
- Indicate, as appropriate, where treated wastewater is *reused* or *recycled* within the plant (e.g., reuse of settling pond/impoundment water as fly ash sluice).
- Identify all outfall locations. Include *NPDES permit* outfall numbers, if applicable.
- Provide the typical flow rates for all streams on the diagram (in gpm or gpd). If the wastewater stream is intermittent, provide amount and frequency; for example "100 gal, twice/day, 100 dpy" or "1000 gpm, 4 hpd, 365 dpy". For sludges, provide amount in tpd.

If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.

Review:

If any of the statements above were not checked, revise the block diagram(s) and ensure all statements have been checked.

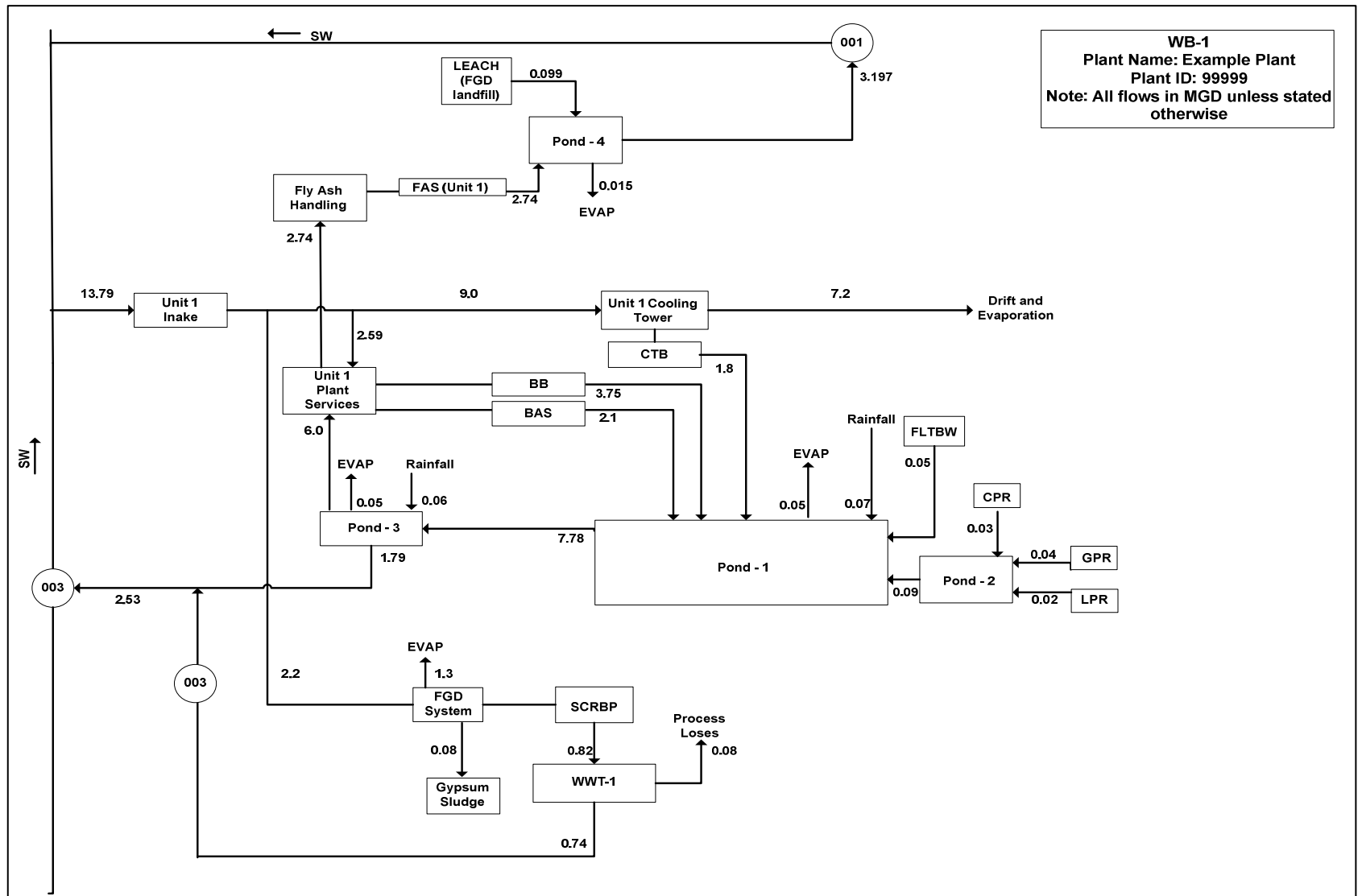


Figure A-1: Example Water Balance Diagram

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 6. Steam Electric Generating Unit Information

Instructions: Throughout Section 6 (Questions A6-1 to A6-2), provide information requested on each steam electric generating unit that the plant has operated or any steam electric generating units the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Plants do NOT need to include information on units retired before January 1, 2009. Please provide all free response answers in the highlighted yellow areas.

CBI?
 Yes

A6-1. In Table A-8, provide information for each steam electric generating unit that commenced operating prior to January 1, 2010. Plants do NOT need to include information on units retired before January 1, 2009. For combined cycle systems, provide EIA Generator IDs for all steam and combustion turbines associated with the combined cycle system. Provide the electric generation for the entire combined cycle system in 2009. In the "Type of Unit" column, if you indicate "Other", provide an explanation in the Comments page. See the glossary for definitions of *base load*, *peaking*, *cycling*, and *intermediate*.

Table A-8. Steam Electric Units Operated Prior to January 1, 2010

Steam Electric Unit	EIA Generator ID	Operated in 2009	Type of Steam Electric Prime Mover (or Turbine)	Total Unit Electric Generation in 2009 (MW-hrs)	Total Unit Nameplate Capacity		Type of Unit	Is this Unit Now Retired?
					Steam Turbine Capacity (MW)	Combustion Turbine Capacity (MW)		
SE Unit-1		<input type="radio"/> Yes Calendar days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No Was operated in previous years	Type of Turbine					
SE Unit-2		<input type="radio"/> Yes Calendar days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No Was operated in previous years	Type of Turbine					
SE Unit-3		<input type="radio"/> Yes Calendar days of operation:					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:	<input type="radio"/> Yes <input type="radio"/> No
		<input type="radio"/> No Was operated in previous years	Type of Turbine					

SE Unit-4	<input type="radio"/> Yes Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: 	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No Was operated in previous years								
SE Unit-5	<input type="radio"/> Yes Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: 	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No Was operated in previous years								
SE Unit-6	<input type="radio"/> Yes Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: 	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No Was operated in previous years								
SE Unit-7	<input type="radio"/> Yes Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: 	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No Was operated in previous years								
SE Unit-8	<input type="radio"/> Yes Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: 	<input type="radio"/> Yes <input type="radio"/> No
	<input type="radio"/> No Was operated in previous years								

SE Unit-9	<input type="radio"/> Yes	Calendar days of operation:	Type of Turbine	▼					<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify: _____	<input type="radio"/> Yes <input type="radio"/> No	
	<input type="radio"/> No										Was operated in previous years
	<input type="radio"/> Yes	Calendar days of operation:									
	<input type="radio"/> No										
	<input type="radio"/> Yes	Calendar days of operation:									
	<input type="radio"/> No										Was operated in previous years
<input type="radio"/> Yes	Calendar days of operation:										
<input type="radio"/> No		Was operated in previous years									

CBI?
 Yes

A6-2. In Table A-9, provide information for each steam electric generating unit that commenced operating after December 31, 2009, or the plant is currently constructing/installing or planning to construct/install by December 31, 2015. For combined cycle systems, provide EIA Generator IDs for all steam and combustion turbines associated with the combined cycle system and provide the total capacity for all steam turbines and combustion turbines separately (i.e., sum the respective capacity for all steam turbines and combustion turbines associated with the combined cycle system). In the "Type of Boiler or Reactor" column, check all that apply. In the "Type of Unit" column, if you indicate "Other", provide an explanation in the Comments page. See the glossary for definitions of *base load*, *peaking*, *cycling*, and *intermediate*.

Table A-9. Steam Electric Generating Units That Commenced Operating After December 31, 2009 or Planned Steam Electric Generating Units

Steam Electric Unit	EIA Generator ID (if applicable) or Plant Designation	Type of Boiler or Reactor [check all that apply]	Type of Steam Electric Prime Mover (or Turbine)	Initial Date of Operation or Planned Date of Operation		Total Unit Nameplate Capacity		Type of Unit
				Month	Year	Steam Turbine Capacity (MW)	Combustion Turbine Capacity (MW)	
SE Unit-A		<input type="checkbox"/> Tangential-fired boiler	Type of Turbine ▼	Month ▼	New Unit Yes ▼			<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:
		<input type="checkbox"/> Wall-fired boiler						
		<input type="checkbox"/> Cyclone-fired boiler						
		<input type="checkbox"/> Waste heat recovery boiler (HRSG)						
		<input type="checkbox"/> Pressurized water reactor						
		<input type="checkbox"/> Boiling water reactor						
	<input type="checkbox"/> Pressurized heavy water reactor							
	<input type="checkbox"/> Other, specify below:							
SE Unit-B		<input type="checkbox"/> Tangential-fired boiler	Type of Turbine ▼	Month ▼	New Unit Yes ▼			<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:
		<input type="checkbox"/> Wall-fired boiler						
		<input type="checkbox"/> Cyclone-fired boiler						
		<input type="checkbox"/> Waste heat recovery boiler (HRSG)						
		<input type="checkbox"/> Pressurized water reactor						
		<input type="checkbox"/> Boiling water reactor						
	<input type="checkbox"/> Pressurized heavy water reactor							
	<input type="checkbox"/> Other, specify below:							
SE Unit-C		<input type="checkbox"/> Tangential-fired boiler	Type of Turbine ▼	Month ▼	New Unit Yes ▼			<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:
		<input type="checkbox"/> Wall-fired boiler						
		<input type="checkbox"/> Cyclone-fired boiler						
		<input type="checkbox"/> Waste heat recovery boiler (HRSG)						
		<input type="checkbox"/> Pressurized water reactor						
		<input type="checkbox"/> Boiling water reactor						
	<input type="checkbox"/> Pressurized heavy water reactor							
	<input type="checkbox"/> Other, specify below:							
SE Unit-D		<input type="checkbox"/> Tangential-fired boiler	Type of Turbine ▼	Month ▼	New Unit Yes ▼			<input type="radio"/> Base load <input type="radio"/> Peaking <input type="radio"/> Cycling <input type="radio"/> Intermediate <input type="radio"/> Other, specify:
		<input type="checkbox"/> Wall-fired boiler						
		<input type="checkbox"/> Cyclone-fired boiler						
		<input type="checkbox"/> Waste heat recovery boiler (HRSG)						
		<input type="checkbox"/> Pressurized water reactor						
		<input type="checkbox"/> Boiling water reactor						
	<input type="checkbox"/> Pressurized heavy water reactor							
	<input type="checkbox"/> Other, specify below:							

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A

Section Title: 7. Condenser Cooling Water Systems

Instructions: Throughout Section 7 (Questions A7-1 to A7-3), provide information requested for all condenser cooling water systems currently operating at the plant and any condenser cooling water systems the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Please provide all free response answers in the highlighted yellow areas.

CBI?

Yes

A7-1. In Table A-10, provide information for all condenser cooling water systems currently operating at the plant and any condenser cooling water systems the plant is currently constructing/installing or planning to construct/install by December 31, 2015. Indicate the type of condenser cooling system and the specific steam electric generating units that the system cools. [Check all boxes that apply.] If the plant adds chemicals to the condenser cooling system, provide the chemical trade name, manufacturer, and active ingredient(s). If there is more than one active ingredient in the chemical additive, include all of them in the yellow box provided. Separate multiple entries with commas. Enter the typical amount of process wastewater generated or blown down from the cooling water system and the typical duration and frequency of generation or blow down. For planned cooling systems, provide this information to the extent known.

Table A-10. Condenser Cooling Systems for All Steam Electric Generating Units

Cooling System ID	Type of Condenser Cooling System	Steam Electric Units that the System Cools (check all boxes that apply)	Chemical Additives Added to the Cooling System and Make-up Water System			Typical Amount of Process Wastewater Generated/Blow Down from Cooling System (gpm)	Typical Duration AND Frequency of Generation/ Blowdown (hpd AND dpy)
			Trade Name	Manufacturer	Active Ingredient(s)		
Operating Condenser Cooling Water Systems							
CS-1	Type of Cooling System ▼ Other: 	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 8	 	 	 	 gpm	 hpd
		<input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 9					 dpy
		<input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 10					
		<input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit A					
		<input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit B					
		<input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit C					
CS-2	Type of Cooling System ▼ Other: 	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 8	 	 	 	 gpm	 hpd
		<input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 9					 dpy
		<input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 10					
		<input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit A					
		<input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit B					
		<input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit C					
CS-3	Type of Cooling System ▼ Other: 	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 8	 	 	 	 gpm	 hpd
		<input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 9					 dpy
		<input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 10					
		<input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit A					
		<input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit B					
		<input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit C					
CS-3	Type of Cooling System ▼ Other: 	<input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit D	 	 	 	 gpm	 hpd
							 dpy

Planned Cooling Water Systems							
CS-A	Type of Cooling System Other: [redacted]	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 8	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 9	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 10	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit A	[redacted]	[redacted]	[redacted]	[redacted] gpm
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit B	[redacted]	[redacted]	[redacted]	[redacted] dpy
		<input type="checkbox"/> SE Unit 6	<input type="checkbox"/> SE Unit C	[redacted]	[redacted]	[redacted]	[redacted] dpy
<input type="checkbox"/> SE Unit 7	<input type="checkbox"/> SE Unit D	[redacted]	[redacted]	[redacted]	[redacted] dpy		
CS-B	Type of Cooling System Other: [redacted]	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 8	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 9	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 10	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit A	[redacted]	[redacted]	[redacted]	[redacted] gpm
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit B	[redacted]	[redacted]	[redacted]	[redacted] dpy
		<input type="checkbox"/> SE Unit 6	<input type="checkbox"/> SE Unit C	[redacted]	[redacted]	[redacted]	[redacted] dpy
<input type="checkbox"/> SE Unit 7	<input type="checkbox"/> SE Unit D	[redacted]	[redacted]	[redacted]	[redacted] dpy		
CS-C	Type of Cooling System Other: [redacted]	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 8	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 9	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 10	[redacted]	[redacted]	[redacted]	[redacted] hpd
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit A	[redacted]	[redacted]	[redacted]	[redacted] gpm
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit B	[redacted]	[redacted]	[redacted]	[redacted] dpy
		<input type="checkbox"/> SE Unit 6	<input type="checkbox"/> SE Unit C	[redacted]	[redacted]	[redacted]	[redacted] dpy
<input type="checkbox"/> SE Unit 7	<input type="checkbox"/> SE Unit D	[redacted]	[redacted]	[redacted]	[redacted] dpy		

CBI?

Yes

A7-2. How did the plant demonstrate compliance with limits on *priority pollutants* for cooling tower blowdown from these cooling systems? [Check all boxes that apply.]

- Waste stream monitoring
- Plant does not operate cooling towers
- Certification from supplier
- Engineering calculations
- Plant does not have priority pollutant limits on cooling tower blowdown
- Other, specify: [redacted]

CBI?

Yes

A7-3. Is POTW effluent used in the cooling water system?

- Yes
- No

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name
 SE Unit ID: Insert SE Unit ID

Part: A
Section Title: 8. Fuel Usage by Steam Electric Generating Unit

Instructions: In Section 8 (Questions A8-1 through A8-3), provide information for all steam electric generating units that were operated in 2009, including units that operated for only part of 2009 (i.e., those units for which you responded "Yes" in Question A6-1, Table A-8, "Operated in 2009" column). Please provide all free response answers in the highlighted yellow areas.

Make copies of Section 8 for each steam electric generating unit ID operated in 2009 using the "Copy Section 8" button below. Enter the steam electric generating unit ID (use unit IDs assigned in Table A-8) in the space above titled "SE Unit ID".

Copy Section 8

CBI?
 Yes

A8-1. In Table A-11, provide the types and amounts of fuels used in 2009. [Check all boxes that apply.] Include fuels used for start up. Also provide the BTU generated by each general fuel type reported for the year 2009.

Note: EPA is requesting the BTUs actually generated by the fuel. Additionally, for reporting barrels of oil, use a conversion of one barrel is equal to 42 U.S. gallons, if needed.

Table A-11. Fuel Usage for Steam Electric Power Generation in 2009

Fossil/Nuclear Fuels								
Coal and Petroleum Coke		Gas		Oil		Nuclear		
BTU Generated by Coal and/or Petroleum Coke		BTU Generated by Gas		BTU Generated by Oil		BTU Generated by Nuclear Fuels		
Type	Amount (tons)	Type	Amount (Million ft ³)	Type	Amount (barrels)	Type	Amount	Units (Specify)
<input type="checkbox"/> Anthracite		<input type="checkbox"/> Natural Gas		<input type="checkbox"/> No. 1 Fuel Oil		<input type="checkbox"/> Nuclear		
<input type="checkbox"/> Bituminous		<input type="checkbox"/> Blast Furnace Gas		<input type="checkbox"/> No. 2 Fuel Oil		<input type="checkbox"/> None		
<input type="checkbox"/> Lignite		<input type="checkbox"/> Gaseous Propane		<input type="checkbox"/> No. 4 Fuel Oil				
<input type="checkbox"/> Subbituminous		<input type="checkbox"/> Other Gases (Provide Below)		<input type="checkbox"/> No. 5 Fuel Oil				
<input type="checkbox"/> Waste Coal				<input type="checkbox"/> No. 6 Fuel Oil				
<input type="checkbox"/> Coal Synfuel		<input type="checkbox"/> None		<input type="checkbox"/> Diesel Fuel				
<input type="checkbox"/> Other Coal (Provide below)				<input type="checkbox"/> Jet Fuel				
				<input type="checkbox"/> Kerosene				
<input type="checkbox"/> Petroleum Coke				<input type="checkbox"/> Waste Oil				
<input type="checkbox"/> None				<input type="checkbox"/> Other Oil (Provide below)				
				<input type="checkbox"/> None				
Total BTU Generated by Fossil/Nuclear Fuels								
Other Fuels (i.e., Fuels other than Fossil or Nuclear)								
Type	Amount	Units (Specify)	Type	Amount	Units (Specify)	Type	Amount	Units (Specify)
<input type="checkbox"/> Municipal Solid Waste			<input type="checkbox"/> Landfill Gas			<input type="checkbox"/> None		
<input type="checkbox"/> Wood			<input type="checkbox"/> Other Biomass			<input type="checkbox"/> Other (Provide below)		
Total BTU Generated by Other Fuels								
Total BTU Generated by All Fuels								

CBI? Yes**A8-2.** Do the total BTUs generated by the fossil/nuclear fuels comprise 50 percent or more of the total BTUs generated by all fuels for the steam electric generating unit in 2009? Yes No**CBI?** Yes**A8-3.** Did the plant report a fossil or nuclear fuel as the predominant or second most predominant energy source for this generating unit on Form EIA-860 for reporting year 2009? NOTE: This information is reported in Schedule 3, Part B, lines 9 and 11. Yes No

If the plant responded "Yes" to either Question A8-2 or A8-3, then this steam electric generating unit is classified as a "fossil/nuclear electric generating unit" for the purposes of this questionnaire. If the plant responded "No" to both Questions A8-2 and A8-3, then this electric generating unit is classified as an "other electric generating unit" for the purposes of this questionnaire.

NOTE: IF ALL STEAM ELECTRIC GENERATING UNITS IDENTIFIED IN TABLE A-8 ARE CLASSIFIED AS "OTHER ELECTRIC GENERATING UNITS" (BASED ON THE CLASSIFICATION DETERMINED FROM QUESTIONS A8-2 AND A8-3), DO NOT COMPLETE THE REMAINDER OF THIS QUESTIONNAIRE.

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 9. NOx Control Systems

Instructions: Throughout Section 9 (Questions A9-1 to A9-11), provide information for all *NOx control systems* operated on fossil-fueled electric generating units on or after January 1, 2009 and all NOx control systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

CBI?
 Yes

A9-1. Did the plant operate any NOx control systems on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any NOx control system on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-12)
 No (Skip to Section 10)

In Table A-12, provide information for NOx control systems that the plant operated after January 1, 2009, is currently constructing/installing, or planning to construct/install by December 31, 2020 on each operating or planned fossil-fueled electric generating unit (identified in Table A-8 or Table A-9). Provide the steam electric generating unit ID (use codes from Table A-8 or Table A-9), the type of NOx control system(s) operating or planned for the steam electric generating unit, whether the NOx control system(s) are operating or planned, and the date the NOx control was/will be installed. In addition, for the steam electric generating units serviced by a SCR system, identify the date and location (i.e., on- or off-site) of the last and next SCR catalyst replacement/regeneration.

Table A-12. NOx Control Systems

SE Unit ID	Type of NOx Control System	Status of NOx Control System	Date of Installation, Previous or Planned		For Steam Electric Generating Units Serviced by a SCR System					
					Date of Last SCR Catalyst Replacement or Regeneration		Where Last SCR Catalyst Regeneration Occurred	Date of Next Planned SCR Catalyst Replacement or Regeneration		Where Next SCR Catalyst Regeneration is Planned to Occur
					Month	Year		Month	Year	
SE Unit ID ▼	<input type="checkbox"/> SCR	Operating/P ▼	Month ▼	Year ▼	Month ▼	Last Year ▼	Last Onsite/Offsite ▼	Planned Mo ▼	Planned Ye ▼	Planned Onsite/Offsite ▼
	<input type="checkbox"/> SNCR	Operating/P ▼	Month ▼	Year ▼						
	<input type="checkbox"/> Overfire Air	Operating/P ▼	Month ▼	Year ▼	Last Replaced/Regenerated ▼	Planned Replaced/Regenera ▼				
	<input type="checkbox"/> Low NOx burners	Operating/P ▼	Month ▼	Year ▼						
	<input type="checkbox"/> Other: 	Operating/P ▼	Month ▼	Year ▼						
SE Unit ID ▼	<input type="checkbox"/> SCR	Operating/P ▼	Month ▼	Year ▼	Month ▼	Last Year ▼	Last Onsite/Offsite ▼	Planned Mo ▼	Planned Ye ▼	Planned Onsite/Offsite ▼
	<input type="checkbox"/> SNCR	Operating/P ▼	Month ▼	Year ▼						
	<input type="checkbox"/> Overfire Air	Operating/P ▼	Month ▼	Year ▼	Last Replaced/Regenerated ▼	Planned Replaced/Regenera ▼				
	<input type="checkbox"/> Low NOx burners	Operating/P ▼	Month ▼	Year ▼						
	<input type="checkbox"/> Other: 	Operating/P ▼	Month ▼	Year ▼						

SE Unit ID ▼	<input type="checkbox"/> SCR	Operating/P ▼	Month ▼		Month ▼ Last Year ▼	Last Onsite/Offsite ▼	Planned Mo ▼ Planned Ye ▼	Planned Onsite/Offsite ▼
	<input type="checkbox"/> SNCR	Operating/P ▼	Month ▼					
	<input type="checkbox"/> Overfire Air	Operating/P ▼	Month ▼					
	<input type="checkbox"/> Low NOx burners	Operating/P ▼	Month ▼					
	<input type="checkbox"/> Other: [redacted]	Operating/P ▼	Month ▼					
					Last Replaced/Regenerated ▼		Planned Replaced/Regenera ▼	

CBI?
 Yes

A9-2. If the plant has sent an SCR catalyst off site for regeneration, provide the company name, location, and phone number for the company(ies) that performed the last two *SCR catalyst regenerations*.

Plant did not send SCR catalyst offsite for regeneration.

Table A-13. Companies that performed the last two SCR catalyst regenerations

Company Name	City	State	Telephone Number
		State ▼	
		State ▼	

CBI?

Yes

A9-3. If the SCR catalyst is regenerated on site, indicate whether process wastewater is generated from the regeneration process.

- Yes (Continue)
- No (Skip to Question A9-7)
- NA: SCR catalyst is NOT regenerated on site (Skip to Question A9-7)

CBI?

Yes

A9-4. Provide the typical volume of *SCR catalyst regeneration wastewater* generated (gpy) and the frequency at which the process wastewater is generated.

gpy times every year(s)

CBI?

Yes

A9-5. Is the SCR catalyst regeneration wastewater commingled with other wastewaters? If yes, indicate the wastewaters with which the SCR catalyst regeneration wastewater is commingled. [Check all boxes that apply.]

- Yes
 - Fly ash transport water
 - Bottom ash transport water
 - FGD scrubber purge
 - Cooling tower blowdown
 - Once-through cooling water
 - Cleaning wastes from cleaning metal process equipment
 - Other, specify:
- No

CBI?

Yes

A9-6. Indicate all intermediate and final destination(s) of the SCR catalyst regeneration wastewater. If the plant recycles the SCR catalyst regeneration wastewater, indicate the plant process to which this water is recycled. [Check all that apply].

- Immediately recycled back to plant process. Please describe how the process wastewater is reused:
- Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply.]
 - Settling pond
 - pH adjustment
 - Chemical precipitation
 - Constructed wetlands
 - Other, specify:
- Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2):
- Indirect discharge to a publicly or privately owned treatment works
- Other, explain:

CBI?

Yes

A9-7. Is the SCR catalyst washed on site?

- Yes (Continue)
- No (Skip to Section 10)

CBI?

A9-8. Is process wastewater generated from the *SCR catalyst washing* process?

Yes

- Yes (Continue)
- No (Skip to Section 10)

CBI?

A9-9. Provide the typical volume of *SCR catalyst washing wastewater* generated (gpy) and the frequency at which the process wastewater is generated.

Yes

_____ gpy _____ times every _____ year(s)

CBI?

A9-10. Is the SCR catalyst washing wastewater commingled with other wastewaters? If yes, indicate the wastewaters with which the SCR catalyst washing wastewater is commingled. [Check all boxes that apply.]

Yes

- Yes
 - Fly ash transport water
 - Bottom ash transport water
 - FGD scrubber purge
 - Cooling tower blowdown
 - Once-through cooling water
 - Cleaning wastes from cleaning metal process equipment
 - Other, specify: _____

No

CBI?

A9-11. Indicate all intermediate and final destination(s) of the SCR catalyst washing wastewater. If the plant recycles the SCR catalyst washing wastewater, indicate the plant process to which this water is recycled. [Check all that apply].

Yes

Immediately recycled back to plant process. Please describe how the process wastewater is reused:

Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply.]

- Settling pond
- pH adjustment
- Chemical precipitation
- Constructed wetlands
- Other, specify: _____

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2):

Indirect discharge to a publicly or privately owned treatment works

Other, explain:

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 10. Flue Gas Mercury Control Systems

Instructions: Throughout Section 10 (Questions A10-1 to A10-5), provide information for all *flue gas mercury control systems* (including those not currently operating) that are currently installed on fossil-fueled electric generating units and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Do NOT include FGD, SCR/SNCR, and *particulate matter control systems*. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

CBI?
 Yes

A10-1. Are there any flue gas mercury control systems (other than FGD, SCR/SNCR, or *particulate matter control systems*) installed on fossil-fueled electric generating units or is the plant currently constructing/installing or planning to construct/install any flue gas mercury control systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-14)
 No (Skip to Question A10-3)

In Table A -14 provide information for all flue gas mercury control systems (other than FGD, SCR/SNCR, or particulate matter control systems) currently installed on fossil-fueled electric generating units (including those not currently operating) and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. Provide the type of mercury control system and the generating units that are or will be serviced by the system. [Check all boxes that apply.] For planned mercury control systems, provide the type of system it will be and all generating units that will be serviced by the system.

Table A-14. Flue Gas Mercury Control Systems

Mercury Control Systems	Type of Mercury Control System	Steam Electric Units that Exhaust to the System (Check all boxes that apply)	Date of Installation, Previous or Planned		Location of Mercury Control System in Relation to Initial Particulate Matter Control System	Handling of Mercury Control Solid Waste	Design or Targeted Mercury Removal Efficiency (%)
			Month	Year			
Currently Operating Flue Gas Mercury Control Systems							
FGMC-1		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	

FGMC-2		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	
FGMC-3		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	
FGMC-4		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	
Planned Flue Gas Mercury Control Systems							
FGMC-A		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	
FGMC-B		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		Upstream/Downstream	Wet/Dry	
FGMC-C		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Select		Select	Select	

CBI?

Yes

A10-2. In the space below, provide a description of all flue gas mercury control system processes, the plant is currently operating, currently constructing/installing, or planning to construct/install by December 31, 2020. Include the solid wastes and process wastewater streams generated, the volume and characteristics (i.e., *pollutants* present) of the process wastewater generated, and any known or anticipated probable effect on other process wastewater (e.g., fly ash transport water). Additionally, indicate how the solid wastes and process wastewater from mercury control systems are/will be handled (e.g., are solid wastes combined with fly ash). Provide the final destination of all mercury control system wastes (e.g., sent to an ash pond or other impoundment, landfilled, or hauled off site).

[Redacted area]

CBI?

Yes

A10-3. Has the plant ever operated or does it plan to operate a pilot-scale flue gas mercury control system for a pilot study evaluation?

- Yes (Continue)
- No (Skip to Section 11)

Specify the type(s) of technology studied:

[Redacted area]

CBI?

Yes

A10-4 Did the study evaluate *process wastewaters* generated by the technology or identify that *process wastewater* will be generated or affected by the technology?

- Yes (Continue)
- No (Skip to Section 11)

CBI?

Yes

A10-5 Provide the name of the company whose technology was/will be tested, the start and end date of the pilot study, and attach the final technical evaluation report from the pilot study (if study is complete).

Company Name:

[Redacted area]

Start Date:

[Redacted area]

End Date:

[Redacted area]

- I have attached the final technical evaluation report.
- I did not attach the final technical evaluation report. Explain why:

[Redacted area]

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 11. Carbon Capture Systems

Instructions: Throughout Section 11 (Questions A11-1 to A11-6), provide information for all *carbon capture systems* operated on fossil-fueled electric generating units on or after January 1, 2009 and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Provide this information for both full-scale and pilot-scale systems. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

CBI?
 Yes

A11-1. Did the plant operate any *carbon capture systems* on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any carbon capture systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-15)
 No (Skip to Section 12)

In Table A-15 provide information for carbon capture systems that the plant operated after January 1, 2009 on fossil-fueled electric generating units at the plant and systems that the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. Provide the type of carbon capture system and the steam electric generating units that correspond to the system. [Check all boxes that apply.] For planned carbon capture systems, provide the type of system it will be and all steam electric generating units that will correspond to the system.

Table A-15. Carbon Capture Systems

CCS Systems	Type of Carbon Capture System	Steam Electric Units Corresponding to the System (Check all boxes that apply).	Date of Installation, Previous or Planned		Full Scale or Pilot Scale	Percent of Flue Gas Treated
			Month	Year		
Currently Operating Carbon Capture Systems						
CCS-1		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
CCS-2		<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	

CCS-3		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month ▼		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 8				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 9				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 10				
		Other: 					
CCS-4		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month ▼		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 8				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 9				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 10				
		Other: 					
Planned Carbon Capture Systems							
CCS-A		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month ▼		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 8				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 9				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 10				
		Other: 					
CCS-B		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month ▼		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 8				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 9				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 10				
		Other: 					
CCS-C		<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month ▼		<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
		<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7				
		<input type="checkbox"/> SE Unit 3	<input type="checkbox"/> SE Unit 8				
		<input type="checkbox"/> SE Unit 4	<input type="checkbox"/> SE Unit 9				
		<input type="checkbox"/> SE Unit 5	<input type="checkbox"/> SE Unit 10				
		Other: 					

CBI?
 Yes

A11-2. In the space below, provide a description of all full-scale and pilot-scale carbon capture system processes, previously tested, previously operated, currently operating, currently being constructed/installed, and/or planned to constructed/installed by December 31, 2020. Provide a general description of the system, including the specific list of types of chemicals and equipment used, the types of process wastewater generated, and any known or anticipated probable effect on other *process wastewater* streams (e.g., fly ash transport water). Additionally, indicate how the process wastewater streams from the carbon capture process were/will be managed.

CBI?

Yes

A11-3. Has the plant operated any full-scale or pilot-scale carbon capture systems for studies in which process wastewaters generated by the technology were evaluated?

- Yes (Continue)
- No (Skip to Section 12)

CBI?

Yes

A11-4. Provide the name of the company whose technology was tested, the start and end date of the study, and attach the final technical evaluation report from the study (if study is complete).

Company Name:

Start Date: End Date:

- I have attached the final technical evaluation report.
- I did not attach the final technical evaluation report. Explain why:

CBI?

Yes

A11-5. Provide the typical volume of *process wastewater* generated from the carbon capture system (gpm) and the duration (hpd) and frequency (dpy) of *carbon capture wastewater* generation.

gpm hpd dpy

CBI?

Yes

A11-6. Were characterization samples of the *carbon capture wastewater* collected during the study?

- Yes (Continue)
- No (Skip to Section 12)

Provide the analytical results of the *carbon capture wastewater* characterization (if not already included in the technical report requested in Question A11-4).

- I have attached the analytical results of the carbon capture wastewater characterization.
- I did not attach the analytical results of the carbon capture wastewater characterization. Explain why:

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: 12. Wet Electrostatic Precipitator Systems

Instructions: Throughout Section 12, provide information for all wet electrostatic precipitator (ESP) systems operated on fossil-fueled electric generating units on or after January 1, 2009 and all systems the plant is currently constructing/installing or planning to construct/install on fossil-fueled electric generating units by December 31, 2020. See Part A Section 8 for unit classifications. Provide this information for both full-scale and pilot-scale systems. You will need to indicate the steam electric generating units that are serviced by these air pollution control systems. Use codes from Table A-8 or Table A-9 to designate the SE Unit ID.

CBI?

Yes

A12-1. Did the plant operate any wet ESP systems on fossil-fueled electric generating units after January 1, 2009 or is the plant currently constructing/installing or planning to construct/install any wet ESP systems on fossil-fueled electric generating units by December 31, 2020? See Part A Section 8 for unit classifications.

- Yes (Complete Table A-16)
 No (Skip to Section 13)

In Table A-16 provide information for wet ESP systems that the plant operated after January 1, 2009 that service fossil-fueled electric generating units and systems that the plant is currently constructing/installing or planning to construct/install to service fossil-fueled electric generating units by December 31, 2020. Provide the steam electric generating units that correspond to the system, the date the system was/is planned to be installed, the location of the system, whether it is a full-scale or pilot-scale system, and if it is a pilot-scale system, the percent of flue gas that is treated.

Table A-16. Wet Electrostatic Precipitator Systems

Wet ESP System IDs	Steam Electric Units Corresponding to the System (Check all boxes that apply).	Date of Installation, Previous or Planned		Location of Wet ESP System	Full Scale or Pilot Scale	Percent of Flue Gas Treated
		Month	Year			
Currently Operating Wet ESP Systems						
WESP-1	<input type="checkbox"/> SE Unit 1 <input type="checkbox"/> SE Unit 6 <input type="checkbox"/> SE Unit 2 <input type="checkbox"/> SE Unit 7 <input type="checkbox"/> SE Unit 3 <input type="checkbox"/> SE Unit 8 <input type="checkbox"/> SE Unit 4 <input type="checkbox"/> SE Unit 9 <input type="checkbox"/> SE Unit 5 <input type="checkbox"/> SE Unit 10 Other:	Month		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	

WESP-2	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7					
Other:							
WESP-3	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7					
Other:							
WESP-4	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7					
Other:							
Planned Wet ESP Systems							
WESP-A	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 5	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 6					
Other:							
WESP-B	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7					
Other:							
WESP-C	<input type="checkbox"/> SE Unit 1	<input type="checkbox"/> SE Unit 6	Month <input type="text"/>		<input type="radio"/> Immediately downstream of dry ESP <input type="radio"/> Immediately downstream of baghouse <input type="radio"/> Immediately downstream of wet FGD <input type="radio"/> Other (Explain below):	<input type="radio"/> Full Scale <input type="radio"/> Pilot Scale	
	<input type="checkbox"/> SE Unit 2	<input type="checkbox"/> SE Unit 7					
Other:							

CBI?

Yes

A12-2. Provide the flow rate, duration, and frequency of the wastewater generated from the wet ESP system for calendar year 2009.

gpm
 hpd
 dpy

CBI?

Yes

A12-3. Provide the source of the water used in the wet ESP system. [Check all boxes that apply.]

Raw intake water

Intake water that has been treated on site prior to use

Process wastewater, specify Process Wastewaters

Other process wastewater, specify: [Redacted]

Other, explain: [Redacted]

CBI?

Yes

A12-4. For water sources that may be used in the wet ESP (e.g., fresh intake, recycled process water), indicate the maximum chlorides concentration and maximum solids percentage that is acceptable for the water to be used for those purposes. Identify any other criteria that the source water must meet.

Chlorides concentration: [Redacted] ppm

Solids percentage: [Redacted] %

Other, explain: [Redacted]

CBI?

Yes

A12-5. Indicate all intermediate and final destination(s) of the wet ESP wastewater. If the plant recycles the wet ESP wastewater, indicate the plant process to which this water is recycled. [Check all that apply].

Immediately recycled back to plant process. Please describe how the wet ESP wastewater is reused:

[Redacted]

Transferred to solid separation process. Identify the type of solid separation process below. [Check all boxes that apply.]

Dewatering bin

Hydrocyclones

Centrifuges

Filters

Other (Explain): [Redacted]

Transferred to treatment system reported in Tables D-1 or D-2. Identify the type of treatment system below. [Check all boxes that apply.]

Settling pond

Chemical precipitation

Biological reactor – aerobic

Biological reactor – anoxic/anaerobic

Mechanical vapor compression (brine concentrator)

Constructed wetlands

Mechanical vapor compression (brine concentrator) with spray dryer

Mechanical vapor compression (brine concentrator) with crystallizer

Other, explain: [Redacted]

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2): [Redacted]

Indirect discharge to a publicly or privately owned treatment works

Deep well injection

Other, explain: [Redacted]

CBI?

Yes

A12-6. Has the plant operated any full-scale or pilot-scale wet ESP systems for studies in which process wastewaters generated by the technology were evaluated?

Yes

(Continue)

No

(Skip to Section 13)

CBI?

Yes

A12-7. Provide the name of the company whose technology was tested, the start and end date of the study, and attach the final technical evaluation report from the study (if study is complete).

Company Name:

[Redacted]

Start Date:

[Redacted]

End Date:

[Redacted]

I have attached the final technical evaluation report.

I did not attach the final technical evaluation report. Explain why:

[Redacted]

CBI?

Yes

A12-8. Were characterization samples of the wet ESP wastewater collected during the study?

Yes

(Continue)

No

(Skip to Section 13)

Provide the analytical results of the wet ESP wastewater characterization (if not already included in the technical report requested in Question A12-7).

I have attached the analytical results of the wet ESP wastewater characterization.

I did not attach the analytical results of the wet ESP wastewater characterization. Explain why:

[Redacted]

Plant ID: Insert Plant ID
Plant Name: Insert Plant Name

Part: A
Section Title: 13. Coal Storage and Processing

Instructions: Throughout Section 13 (Questions A13-1 to A13-17), provide information regarding the storage, processing, and use of coal for all steam electric generating units that were operated in 2009. Please provide all free response answers in the highlighted yellow areas.

CBI?

Yes

A13-1. Did the plant store or process any coal on site in 2009? Processing coal includes any methods used to prepare the coal for use at the plant including but not limited to crushing/pulverizing coal.

Yes (Continue)

No (Skip to Question A13-16)

CBI?

A13-2. Provide the amount (gpy) and number of days of *discharge* of *coal pile runoff* in 2009. If there was no coal pile runoff discharge, enter "0" and provide the reason in the Comments tab. The plant can estimate discharge of coal pile runoff, but a description of the estimation method must be included in the Comments tab.

 gpy number of days of discharge in 2009

CBI?

Yes

A13-3. Was the coal pile runoff monitored for pH?

- Yes (Continue)
- No (Skip to Question A13-4)

If yes, provide the pH range for the coal pile runoff generated at the plant (prior to any commingling with other water streams, including other stormwater).

pH in coal pile runoff: Minimum: S.U.
Maximum: S.U.
Median: S.U.

CBI?

Yes

A13-4. Is coal pile runoff transferred to a pond/impoundment?

- Yes, transferred to a pond/impoundment
 - Segregated - specify pond/impoundment unit ID(s) from Table A-4:
 - Commingled - specify pond/impoundment unit ID(s) from Table A-4:
- No

CBI?

Yes

A13-5. Indicate all intermediate and final destination(s) of the coal pile runoff. If the plant recycles the coal pile runoff, indicate the plant process to which this water is recycled. [Check all that apply].

Immediately recycled back to plant process. Please indicate the plant process(es) to which the process wastewater is recycled.

Fly or bottom ash sluicing

Flue gas desulfurization

Other, explain: _____

Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply.]

Settling pond

Constructed wetlands

pH adjustment

Other, specify: _____

Chemical precipitation

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2): _____

Indirect discharge to a publicly or privately owned treatment works

Other, explain: _____

CBI?

Yes

A13-6. Indicate whether the plant washes the coal on site. (See the definition for *coal washing* in the glossary for assistance).

Yes (Continue)

No (Skip to Question A13-8)

Provide the average volume of *coal wash* water generated (gpm), the duration of water generation (hpd), and the frequency of water generation (dpy).

_____ gpm

_____ hpd

_____ dpy

CBI?

Yes

A13-7. Indicate all intermediate and final destination(s) of the *coal wash* water. If the plant recycles the coal wash water, indicate the plant process to which this water is recycled. [Check all that apply].

Immediately recycled back to plant process. Please indicate the plant process(es) to which the wastewater is recycled.

Fly or bottom ash sluicing

Flue gas desulfurization

Other, explain:

[Redacted]

Transferred to pond(s)/impoundment(s). Provide the IDs of the pond/impoundment unit(s) previously defined in Table A-4:

[Redacted]

Transferred to on-site treatment system. Identify the type of treatment system below. [Check all boxes that apply].

Settling pond

Constructed wetlands

Biological reactor - aerobic

Biological reactor - anoxic/anaerobic

Chemical precipitation

Other, specify:

[Redacted]

Discharged to surface water. Provide NPDES permitted outfall number (from Part A Section 2.2):

[Redacted]

Indirect discharge to a publicly or privately owned treatment works

Other, explain:

[Redacted]

CBI?

Yes

A13-8. Did the plant blend more than one coal together on site during 2009? Blending is the act of intentionally mixing different coal types (e.g., bituminous and subbituminous) prior to combustion. Note that natural mixing of coal types that occurs in the coal piles does not constitute blending.

- Yes (Continue)
- No (Skip to Question A13-10)

CBI?

Yes

A13-9. Did the plant generate any process wastewater associated with the blending of the coals during 2009?

- Yes (provide amount below)

| Units Over days

- No

CBI?

Yes

A13-10. Did the plant pulverize coal for use in any boiler during 2009?

- Yes (Continue)
- No (Skip to Question A13-16)

CBI?

Yes

A13-11. Was any water used in the coal pulverization process, other than that used for sluicing mill rejects?

- Yes (Continue)
- No (Skip to Question A13-12)

Provide the volume of coal pulverization *process wastewater* generated in 2009 (gpd OR gpy) and the frequency of this process wastewater generation (days).

Units Over days

CBI?

Yes

A13-12. Were mill rejects sluiced in 2009?

- Yes (Continue)
- No (Skip to Question A13-14)

Provide the volume of *mill rejects sluice* water generated in 2009 (gpd OR gpy) and the frequency of sluice water generation (days).

Units Over days

CBI?

Yes

A13-13. Were the mill rejects sluiced separately or were they sluiced with fly and/or bottom ash?

Sluiced by

CBI?

Yes

A13-14. Are the mill rejects pyritic?

- Yes
- No
- Unknown

CBI?

Yes

A13-15. Indicate how mill rejects are disposed of and provide amount(s). If the mill rejects are sent to a pond/impoundment, indicate whether they are combined with fly and/or bottom ash. [Check all boxes that apply.]

- Stored in/transferred to a pond/impoundment reported in Table A-4 _____ tpd
 - Combined with fly ash in pond/impoundment
 - Combined with bottom ash in pond/impoundment
 - Not combined with fly or bottom ash in pond/impoundment
- Stored in/transferred to a landfill reported in Table A-6 _____ tpd
- Hauled off site for disposal _____ tpd
- Other, explain: _____ _____ tpd

CBI?

Yes

A13-16. Did the plant gasify coal, petroleum coke, or oil to operate an IGCC generating unit during 2009?

- Yes
- No

CBI?

Yes

A13-17. Is the plant currently operating, currently constructing/installing, or planning to construct/install by December 31, 2015 an *IGCC generating unit* that was not in operation during 2009?

- Yes
- No

Plant ID: Insert Plant ID
 Plant Name: Insert Plant Name

Part: A
Section Title: Part A Comments

Instructions: Cross reference your comments by question number and indicate the confidential status of your comment by checking the box next to "Yes" under "CBI?" (Confidential Business Information).

Question Number	Comment
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	
CBI? <input type="checkbox"/> Yes	

CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		

CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		
CBI? <input type="checkbox"/> Yes		

Table A-17. Listing of Fossil-Type Fuels

Type of Fuel
Coal
Anthracite Coal
Bituminous Coal
Lignite Coal
Subbituminous Coal
Waste Coal (including anthracite culm, bituminous gob)
Other Coal
Coal Synfuel
Oil
Distillate Fuel Oil (including Diesel, No. 1, No. 2, and No. 4 fuel oils)
Jet Fuel
Kerosene
Residual Fuel Oil (including No. 5 and No. 6 fuel oil and Bunker C fuel oil)
Other Oil (Crude oil, liquid butane, liquid propane, re-refined motor oil, sludge oil, tar oil, other petroleum-based liquid wastes)
Waste Oil
Petroleum Coke
Petroleum Coke
Gas
Blast Furnace Gas
Natural Gas
Gaseous Propane
Other Gases (Define on "Comments Page", NOT including landfill gas or biomass gas)

Steam Electric Questionnaire Code Tables

Process Wastewaters	
<i>For Use in Tables and Questions throughout Parts A, B, C, D, and F.</i>	
Air heater cleaning water	AHCW
Ash pile runoff	APR
Boiler blowdown	BB
Boiler fireside cleaning water	BFCW
Boiler tube cleaning water	BTCW
Bottom ash sluice	BAS
Carbon capture wastewater	CCAPW
Coal pile runoff	CPR
Combined ash sluice	CAS
Combustion turbine cleaning (combustion gas portion of turbine) water	COMBCW
Combustion turbine cleaning (compressor portion of the turbine) water	COMPRCW
Combustion turbine evaporative coolers blowdown	TECB
Cooling tower blowdown	CTB
FGD scrubber purge	SCRBP
FGD slurry blowdown	FGDB
Filter Backwash	FLTBW
Floor drain wastewater	FDW
Flue gas mercury control system wastewater	FGMCW
Fly ash sluice	FAS
General runoff	GR
Gypsum pile runoff	GPR
Gypsum wash water	GYPWW
Ion exchange wastewater	IXW
Landfill runoff - capped landfill	LRC
Landfill runoff - uncapped landfill	LRUC
Leachate	LEACH
Limestone pile runoff	LPR
Mill reject sluice	MRS

Treated Wastewaters	
<i>For Use as Effluents from Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-4.</i>	
Effluent - 1	EFF-1
Effluent - 2	EFF-2
Effluent - 3	EFF-3
Effluent - 4	EFF-4
Effluent - 5	EFF-5
Effluent - 6	EFF-6
Filter backwash	FltBW
Sludge	SLDG
<i>For Use as Influent to Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-3, AND Recycled Waters Throughout Questionnaire.</i>	
POND-1 Effluent	POND-1-EFF
POND-2 Effluent	POND-2-EFF
POND-3 Effluent	POND-3-EFF
POND-4 Effluent	POND-4-EFF
POND-5 Effluent	POND-5-EFF
POND-6 Effluent	POND-6-EFF
POND-7 Effluent	POND-7-EFF
POND-8 Effluent	POND-8-EFF
POND-9 Effluent	POND-9-EFF
POND-10 Effluent	POND-10-EFF
POND-A Effluent	POND-A-EFF
POND-B Effluent	POND-B-EFF
POND-C Effluent	POND-C-EFF
WWT-1 Effluent	WWT-1-EFF
WWT-2 Effluent	WWT-2-EFF
WWT-3 Effluent	WWT-3-EFF
WWT-4 Effluent	WWT-4-EFF
WWT-5 Effluent	WWT-5-EFF

Steam Electric Questionnaire Code Tables

Process Wastewaters	
<i>For Use in Tables and Questions throughout Parts A, B, C, D, and F.</i>	
Once -through cooling water	CW
Reverse osmosis reject water	RORW
SCR catalyst regeneration wastewater	SCRRW
SCR catalyst washing wastewater	SCRWW
Soot blowing wash water	SOOTW
Steam turbine cleaning water	STCW
Yard drain wastewater	YARDW

Treated Wastewaters	
<i>For Use as Influent to Pond/Impoundment Systems and/or Wastewater Treatment Systems in Part D, Table D-3, AND Recycled Waters Throughout Questionnaire.</i>	
WWT-6 Effluent	WWT-6-EFF
WWT-A Effluent	WWT-A-EFF
WWT-B Effluent	WWT-B-EFF
WWT-C Effluent	WWT-C-EFF

Steam Electric Questionnaire Code Tables

Wastewater Treatment Units	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Adsorptive media	ADSORB
Aerobic Biological Reactor	AERBIO
Anaerobic Biological Reactor	ANBIO
Aerobic/Anaerobic Biological Reactor	AER/ANBIO
Chemical Precipitation Reaction Tank 1 - 1	CP-1-1
Chemical Precipitation Reaction Tank 1 - 2	CP-1-2
Chemical Precipitation Reaction Tank 2 - 1	CP-2-1
Chemical Precipitation Reaction Tank 2 - 2	CP-2-2
Chemical Precipitation Reaction Tank 3 - 1	CP-3-1
Chemical Precipitation Reaction Tank 3 - 2	CP-3-2
Clarification, Primary - 1	CL-P-1
Clarification, Primary - 2	CL-P-2
Clarification, Secondary - 1	CL-S-1
Clarification, Secondary - 2	CL-S-2
Clarification, Tertiary - 1	CL-T-1
Clarification, Tertiary - 2	CL-T-2
Constructed wetland - Cell 1	CWL -1
Constructed wetland - Cell 2	CWL -2
Constructed wetland - Cell 3	CWL -3
Constructed wetland - Cell 4	CWL -4
Constructed wetland - Cell 5	CWL -5
Constructed wetland - Cell 6	CWL -6
Constructed wetland system	CWTS
Equalization, Primary	EQ-P
Equalization, Secondary	EQ-S
Filter, Microfiltration - 1	FLT-M-1
Filter, Microfiltration - 2	FLT-M-2

Destinations	
<i>For Use in Tables and Questions Throughout Parts A, C, D, and F.</i>	
Burned on site	BURN
Deep-well injection	DWELL
Discharge to POTW	POTW
Discharge to PrOTW	PrOTW
Discharge to surface water	SW
Evaporation	EVAP
Hauled off site for reuse (removal fee)	HAULR - RF
Hauled off site for reuse (given away)	HAULR - GA
Hauled off site for reuse (marketed and sold)	SOLD
Hauled off site for disposal	HAUL
Mixed with fly ash for disposal	MFA
On-site landfill (as reported in Table A-6)	LANDF
POND-1	POND-1
POND-2	POND-2
POND-3	POND-3
POND-4	POND-4
POND-5	POND-5
POND-6	POND-6
POND-7	POND-7
POND-8	POND-8
POND-9	POND-9
POND-10	POND-10
POND-A	POND-A
POND-B	POND-B
POND-C	POND-C
WWT-1	WWT-1
WWT-2	WWT-2

Steam Electric Questionnaire Code Tables

Wastewater Treatment Units	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Filter, Microfiltration - 3	FLT-M-3
Filter, Microfiltration - 4	FLT-M-4
Filter, Sand/Gravity - 1	FLT-S-1
Filter, Sand/Gravity - 2	FLT-S-2
Filter, Sand/Gravity - 3	FLT-S-3
Filter, Sand/Gravity - 4	FLT-S-4
Filter, Ultrafiltration - 1	FLT-U-1
Filter, Ultrafiltration - 2	FLT-U-2
Filter, Ultrafiltration - 3	FLT-U-3
Filter, Ultrafiltration - 4	FLT-U-4
Filter press - 1	FP-1
Filter press - 2	FP-2
Holding tank	HT
Ion exchange	IX
Natural wetlands	NW
pH adjustment - 1	PH-1
pH adjustment - 2	PH-2
pH adjustment - 3	PH-3
Reverse osmosis	ROS
Pond Unit - 1	SPD-1
Pond Unit - 2	SPD-2
Pond Unit - 3	SPD-3
Pond Unit - 4	SPD-4
Pond Unit - 5	SPD-5
Pond Unit - 6	SPD-6
Pond Unit - 7	SPD-7
Pond Unit - 8	SPD-8
Pond Unit - 9	SPD-9

Destinations	
<i>For Use in Tables and Questions Throughout Parts A, C, D, and F.</i>	
WWT-3	WWT-3
WWT-4	WWT-4
WWT-5	WWT-5
WWT-6	WWT-6
WWT-A	WWT-A
WWT-B	WWT-B
WWT-C	WWT-C
Reuse as boiler water	RECYC - BW
Reuse as bottom ash sluice	RECYC - BAS
Reuse as combined ash sluice	RECYC - CAS
Reuse as FGD slurry preparation water	RECYC - FGDP
Reuse as FGD absorber makeup	RECYC - FGDAB
Reuse as fly ash sluice	RECYC - FAS
Reuse as mill reject sluice	RECYC - MRS
Reuse in cooling towers	RECYC - CW

Steam Electric Questionnaire Code Tables

Wastewater Treatment Units	
<i>For Use in Tables and Questions Throughout Parts D and F.</i>	
Pond Unit - 10	SPD-10
Pond Unit - 11	SPD-11
Pond Unit - 12	SPD-12
Pond Unit - 13	SPD-13
Pond Unit - 14	SPD-14
Settling tank - 1	ST-1
Settling tank - 2	ST-2
Settling tank - 3	ST-3
Settling tank - 4	ST-4
Settling tank - 5	ST-5
Thickener - 1	TH-1
Thickener - 2	TH-2
Vacuum drum filter - 1	VF-1
Vacuum drum filter - 2	VF-2
Vacuum filter belt - 1	VFB-1
Vacuum filter belt - 2	VFB-2

Solids Handling	
<i>For Use as Planned Solids Handling for the FGD Slurry Blowdown in Part B Table B-2.</i>	
Centrifuge - 1	CENT-1
Centrifuge - 2	CENT-2
Centrifuge - 3	CENT-3
Centrifuge - 4	CENT-4
Hydrocyclones - 1	HYC-1
Hydrocyclones - 2	HYC-2
Hydrocyclones - 3	HYC-3
Hydrocyclones - 4	HYC-4
Filter press - 1	FP-1
Filter press - 2	FP-2
Thickener - 1	TH-1
Thickener - 2	TH-2
Vacuum drum filter - 1	VF-1
Vacuum drum filter - 2	VF-2
Vacuum filter belt - 1	VFB-1
Vacuum filter belt - 2	VFB-2

Part A Drop Downs

State Names and Abbreviations	
	State
	Select
ALABAMA	AL
ALASKA	AK
AMERICAN SAMOA	AS
ARIZONA	AZ
ARKANSAS	AR
CALIFORNIA	CA
COLORADO	CO
CONNECTICUT	CT
DELAWARE	DE
DISTRICT OF COLUMBIA	DC
FEDERATED STATES OF MICRONESIA	FM
FLORIDA	FL
GEORGIA	GA
GUAM	GU
HAWAII	HI
IDAHO	ID
ILLINOIS	IL
INDIANA	IN
IOWA	IA
KANSAS	KS
KENTUCKY	KY
LOUISIANA	LA
MAINE	ME
MARSHALL ISLANDS	MH
MARYLAND	MD
MASSACHUSETTS	MA
MICHIGAN	MI
MINNESOTA	MN
MISSISSIPPI	MS
MISSOURI	MO
MONTANA	MT
NEBRASKA	NE
NEVADA	NV
NEW HAMPSHIRE	NH
NEW JERSEY	NJ
NEW MEXICO	NM
NEW YORK	NY
NORTH CAROLINA	NC
NORTH DAKOTA	ND
NORTHERN MARIANA ISLANDS	MP
OHIO	OH
OKLAHOMA	OK
OREGON	OR
PALAU	PW
PENNSYLVANIA	PA
PUERTO RICO	PR
RHODE ISLAND	RI
SOUTH CAROLINA	SC
SOUTH DAKOTA	SD
TENNESSEE	TN

TEXAS	TX
UTAH	UT
VERMONT	VT
VIRGIN ISLANDS	VI
VIRGINIA	VA
WASHINGTON	WA
WEST VIRGINIA	WV
WISCONSIN	WI
WYOMING	WY

Units
Units
Select
gpd
gpy

Sluiced by
Sluiced by
Select
Sluiced separately
Sluiced with fly ash
Sluiced with bottom ash
Sluiced with fly ash and bottom ash

Yes/No
Yes/No
Select
Yes
No

am/pm
am/pm
Select
am
pm

Month
Month
Select
January
February
March
April
May
June
July
August
September
October
November
December

Planned Month
Planned Month
Select
January

February
March
April
May
June
July
August
September
October
November
December
Unknown

Last Month
Month
Select
January
February
March
April
May
June
July
August
September
October
November
December
N/A

Year
Year
Select
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002

2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
New Unit Year
New Unit Year
Select
2010
2011
2012
2013
2014
2015

Planned Year
Planned Year
Select
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Unknown

Last Year
Last Year
Select
1980
1981
1982
1983
1984
1985
1986
1987

1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
N/A

Type of Receiving Water
Type of Receiving Water
Select
Estuary
Great Lakes
Lake/Pond
Reservoir
River/Stream
Other

Process Wastewaters
Process Wastewaters
Select
Air heater cleaning water
Ash pile runoff
Boiler blowdown
Boiler fireside cleaning water
Boiler tube cleaning water
Bottom ash sluice
Carbon capture wastewater
Coal pile runoff
Combined ash sluice
Combustion turbine cleaning (combustion gas portion of turbine) water
Combustion turbine cleaning (compressor portion of the turbine) water
Combustion turbine evaporative coolers blowdown
Cooling tower blowdown
FGD scrubber purge
FGD slurry blowdown
Filter Backwash

Floor drain wastewater
Flue gas mercury control system wastewater
Fly ash sluice
General runoff
Gypsum pile runoff
Gypsum wash water
Ion exchange wastewater
Landfill runoff - capped landfill
Landfill runoff - uncapped landfill
Leachate
Limestone pile runoff
Mill reject sluice
Once-through cooling water
Reverse osmosis reject water
SCR catalyst regeneration wastewater
SCR catalyst washing wastewater
Soot blowing wash water
Steam turbine cleaning water
Yard drain wastewater
Other

Pond/Impoundment Unit ID
Pond ID
Select
SPD-1
SPD-2
SPD-3
SPD-4
SPD-5
SPD-6
SPD-7
SPD-8
SPD-9
SPD-10
SPD-11
SPD-12
SPD-13
SPD-14
RET-SPD-1
RET-SPD-2
RET-SPD-3
RET-SPD-4
SPD-A
SPD-B
SPD-C
SPD-D
SPD-E

Landfill ID
Landfill ID
Select
LANDFILL-1
LANDFILL-2
LANDFILL-3
LANDFILL-4
RET-LANDFILL-1

RET-LANDFILL-2
RET-LANDFILL-3
RET-LANDFILL-4
LANDFILL-A
LANDFILL-B
LANDFILL-C
LANDFILL-D

Type of Turbine
Type of Turbine
Select
Combined Cycle
Stand-Alone Steam Turbine

Type of Cooling System
Type of Cooling System
Select
Dry Cooling
Once-Through
Recirculating
Other, specify below

SCR Catalyst Wastewater Handled
SCR Catalyst Wastewater Handled
Select
Transferred to pond and/or wastewater treatment system
Transferred to pond or holding basin without discharge
Hauled off site
Discharged without treatment
Other (specify below)

Operating/Planned
Operating/Planned
Select
Operating
Planned

Last Replaced/Regenerated
Last Replaced/Regenerated
Select
Replaced
Regenerated
Not replaced/regenerated

Planned Replaced/Regenerated
Planned Replaced/Regenerated
Select
Replaced
Regenerated
Unknown

Last Onsite/Offsite
Last Onsite/Offsite
Select
Onsite
Offsite
Not regenerated

Planned Onsite/Offsite
Planned Onsite/Offsite
Select
Onsite
Offsite
Unknown

Upstream/Downstream
Upstream/Downstream
Select
Upstream
Downstream

Wet/Dry
Wet/Dry
Select
Wet
Dry

SE Unit ID
SE Unit ID
Select
SE Unit-1
SE Unit-2
SE Unit-3
SE Unit-4
SE Unit-5
SE Unit-6
SE Unit-7