# CODA<sup>™</sup>: Cost Offer Data Application: Fuel Policy & Fuel Data Entry

Market Implementation Committee August 18, 2010 **Joseph Bowring** 



**Monitoring Analytics** 

# **CODA New Screens**

- Fuel Policy
  - Save and manage fuel policy documents for all your units.
- Fuel Data
  - Monthly entry of fuel delivery and consumption data.
- Opportunity Cost Calculator
  - For units with environmental run time restrictions, enter data by 6:00 PM, and have an opportunity cost calculated by 6:00 AM the next morning.
- Each company can have different users with access to each of the data screens
  - Accounts can be set up to give access to one function, but restrict access to other functions.



## **Authority for this Requirement**

**103 FERC ¶ 61,119:** Order Denying Complaints filed in Docket No. EL02-112-000 and Docket No. EL02-120-000: FERC found that the eFuel requirement is reasonable, and that the confidentiality of generators is protected.

#### PJM Tariff Market Monitoring Plan (Attachment M Appendix):

VIII. DATA COLLECTION AND VERIFICATION: The Market Monitoring Unit shall gather and keep confidential detailed data on the procurement and usage of fuel to produce electric power transmitted in the PJM Region in order to assist the performance of its duties under Attachment M. To achieve this objective, the Market Monitoring Unit shall maintain on its website a mechanism that allows Members to conveniently and confidentially submit such data and develop a manual in consultation with stakeholders that describes the nature of and procedure for collecting data. Members of PJM owning a Generating unit that is located in the PJM Region (including dynamically scheduled units), or is included in a PJM Black Start Service plan, committed as a Generation Capacity Resource for the current or future Delivery Year, or otherwise subject to a commitment to provide service to PJM, shall provide data to the Market Monitoring Unit in the manner prescribed in the PJM Manuals.





# **Current Manual Provisions**

- Fuel Policy
  - Any PJM member with generating units that may be offer capped or that chooses to offer on a cost basis must submit a fuel cost policy to the PJM MMU for approval. (PJM Manual 15)
  - All Fuel Policies will be required to be submitted through the eFuel CODA Fuel Policy screen.
- Fuel Data
  - Each company must review and document their fuel costs at minimum once per month (12 times per year). Additionally, each review must occur within forty (40) days of the preceding review. The results of this review will be used to determine whether or not a fuel cost update is necessary. The documentation of fuel costs must be filed via eFuel CODA . (PJM Manual 15)
  - Contact <u>coda@monitoringanalytics.com</u> with questions.





## **Requirement by Unit Type by Data Schedule**

	Fuel	Sched								
Unit Type	Policy	2	3	4	5	6	7	8	9	Unit Data
Fossil/Organic										
Plant >= 10 MW	А	М	М	Μ	М	S	S	A	NR	М
Fossil/Organic										
Plant < 10 MW	А	М	М	Μ	Μ	S	S	А	NR	М
Nuclear	Α	NR	NR	NR	М	S	S	NR	NR	М
Hydro, Wind,										
Solar, Geothermal	NR	NR	NR	NR	Μ	S	S	NR	NR	М

Requirement	Monthly	Annual	Not Required	See Schedules for Detail
Abbreviation	М	А	NR	S (for Non-Utility Plants)



## Account Set Up

- All PJM Generators should have their PJM CAM fill out the new CODA Registration Form, and designate users for the Fuel Policy and Fuel Data Reporting functions.
  - A single user could perform both roles, or the roles and access to the screens can be split/restricted among different users.
  - All previously existing eFuel accounts will be deleted and replaced with new CODA account credentials.

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• The registration form can be found on the Monitoring Analytics website:

http://www.monitoringanalytics.com/tools/tools.shtml



### **Planned Implementation Schedule**

Date:	Milestone:	
Tuesday, July 27 through	All Generators PJM CAMs fill out CODA Account Registration Form for new accounts, including for those users who already have accounts in the	
wednesday, September 15	Updated CODA System implemented in MA Production Environment. CODA accounts go live.	
Wednesday, September 15	Card 98 and Card 99 data no longer reported.	
Friday, September 17	Training Presentation (Details TBD) All generators accounts set up, data reporting	
Thursday, September 30	August 2010 and going forward.)	
Thursday, September 30	All units have approved fuel policies assigned	$\left  \right\rangle$
Friday, October 15	XML upload template available	
Friday, October 29	XML upload functionality becomes available	





## **Fuel Policy Procedure**

- User saves Fuel Policy document in CODA "Fuel Policy" screen.
- User submits Fuel Policy for review and acceptance by MMU.
- MMU reviews and accepts or rejects submitted Fuel Policy.
- User associates accepted policy with one or more units.
- MMU reviews and accepts or rejects assignment of policy to unit.
- MMU periodically reviews units' fuel accounting calculations to determine consistency with policies.



### **MMU Use of Fuel Policy Information**

- The MMU will use a unit's fuel policy to verify that costs are consistent with company/unit policy.
- Fuel policies assigned to units can only be changed after one year. Exceptions made by request to the MMU.

# **Fuel Policy Template**

 A fuel policy document template is available on the Monitoring Analytics website: <u>http://www.monitoringanalytics.com/tools/tools.shtml</u>



# Fuel Data

- Participants will report Monthly fuel delivery and consumption data into CODA by the end of the month following the data month.
  - Example: July data must be reported by the end of August.
- Monitoring Analytics will audit and enforce participation requirements.
- Monitoring Analytics will use the data for verification and analysis of generator costs.
- Monitoring Analytics treats all submitted data as confidential in accordance with the PJM Tariff.

## **Fuel Policy Screen Shots**



## **Create/Edit a Fuel Policy in eFuel**

In main screen, under "Fuel Policy" (1), select "Policy", select the company the policy is associated with (2), and select "Edit or Create Policy" (3). A list of existing policies will pop up, and you can either select an existing policy to edit, or create a new one. Multiple policies (4) can be opened up in this screen for viewing and editing.



To edit the policy, you can select the "Text" button, and enter the policy text in the provided window (5), or select "Attachment" button, and attach a word document or PDF policy document (6). You can also copy an existing attachment from another existing policy (7).



# Save and Submit Fuel Policy for MMU Review

When you have updated the text, or added attachments, you can save the updated policy by clicking the "Save" button (1). This will save your work on this policy, but will not submit it to the MMU for review and approval. When you are ready to submit the Policy for MMU review and approval, select "Submit Policy" (2).



The MMU will review your submitted policy and either Approve it or Reject it. The status (Accepted or Rejected) of a policy can be seen in the tab next to the policy name (3). Accepted policies can only be viewed, and not edited once they have been accepted. The status of all policies can be viewed by clicking on "View Policy", highlighting all policies (shift select) and clicking on "View Policy".

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# **Associate Approved Fuel Policy with Units**

When a policy has been approved by the MMU, it can then be associated with specific units in the "Policy Management" screen. Users can either pull up a policy, and select which units to assign it to (Retrieve Policies), or pull up a unit, and select which policy should apply to that specific unit (Retrieve Units).



When you select "Retrieve Policies", all Approved policies will appear in a pop-up window. When you select a policy, and then click on "View Units", a list of all units in that company eligible for new policy assignment will appear (1). Highlight the unit(s) you wish to apply this policy to, and select the ">>" to move them into the "Units Applied to Policy" window (2). Then select "Submit Assignment" (3). The MMU will review to make sure that the selected approved policy is compatible with the unit type of the associated unit.

When you select "Retrieve Units" the user selects a unit, and then selects an approved policy to apply to the unit.





### **Fuel Data Screen Shots**

Form EIA-923, developed by the Energy Information Administration (EIA) at the U.S. Department of Energy, collects information from all electric power plants, including data on electric power generation, fuel consumption, fossil fuel stocks, and delivered fossil fuel cost and quality. These data are used to monitor the status and trends of the electric power industry and appear in many Energy Information Administration (EIA) publications. Monitoring Analytics, in its role as the Independent Market Monitor for PJM, is collecting similar data from PJM participants using the CODA electronic interface that has a similar appearance to the EIA Form 923.



### 923 Based Fuel Data

- Schedules 1, 2, 3, 4, 5 and 9 must be filled in monthly.
  - Participants will report Monthly fuel delivery and consumption data into CODA by the end of the month following the data month.
    - Example: July data must be reported by the end of August.
- Schedules 6, 7 and 8 must be filled in annually.
  - Participants will report annual data requirements (for Schedule 6 through Schedule 8) no later than 45 days after the form opens for data entry – typically around March 31 following the end of the reporting year.



## **Fuel Data Screen**

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Fuel Policy Opportunity Cost 923 Power Plant Operations Report	Operation Data Validation Card	Data Reports Tools Logout	Help	
	923 Schedu	lac		
	520 Striedd	lies		
🕼 Edit Schedules 🛛 Year: 2010 🛨 Month: Jun 🚽 Com	pany: 98765432-ZZZTestCo 🗾 I	Unit: 99999991-TestUnit1 🔽	Plant to which the Unit belongs: 2397-Bayonne	
				1
	$\sim$			
	1 )			
	<u>'</u>			

- Under "923 Power Plant Operations Report" (1), select "923 Schedules". Then select the Year, Month, Company, and Unit to enter data, and select "Edit Schedules".
- Schedules 2 through 9 are to be completed at the "Plant" level
- Schedule 2 includes one field, the "Fuel Index" that is not originally in the EIA923 Form, and has been added by the MMU.
- All 923 Schedules are reported monthly, except Schedules 6, 7, and 8, which are reported annually.
- Different EIA schedules are required for different MW level plants
- Non-EIA923 Unit data is reported monthly for each "Unit".
- Right click on the screen to add a row of data into each screen.



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# Fuel Data Schedule 2: Cost and Quality of Fuel Receipts – Plant Level Contract Information, Receipts and Costs

 Plant level data for plants that use Fossil Fuels (coal, petroleum products, petroleum coke, natural gas, and other gases (including blast furnace gas)) for the generation of electric power.



# **Fuel Data Schedule 2: Cost and Quality of Fuel Receipts – Plant Level Contract Information, Receipts and Costs**

SCHEDU	LE 2. PAGE 1. COS F (Instructions fo	T AND QUALITY OF or fossil-fueled pla r SCHEDULE 2, Page 1	FUEL RECEIPTS nts 50 megawa , are on page 3 of	- PLAN Itts and f the EI	(T LEVEL CO d above A Form 923 1	NTRACT INFORM	ATION, RECEIPTS A	<b>ND COSTS</b> Scroll Rig	ght for Page 2 >>
No Receipts (If applicable, plea:	se check)				🔲 Is ther	e a fuel tolling agre	ement in place for this	; plant? (If applicable, p	please check.)
	Contract Inform	nation				Receipts		Cost p	er Unit
	Complete for Al	Fuels				All Fuels		All F	uels
Fuel Supplier Name	Con	tract Type	Contract Exp Date (mmyy)	iration	Ene	rgy Source	Quantity Received	Total Delivered Cost	Commodity Cost (coal, natural gas)
						Y			
SCHEDULE 2. PAGE 2. (Instructions	SCHEDULE 2. PAGE 2. COST AND QUALITY OF FUEL RECEIPTS - PLANT LEVEL QUALITY OF FUEL AND TRANSPORTATION         For fossil-fueled plants 50 megawatts and above         (Instructions for SCHEDULE 2. Page 2. are on page 4 of the EIA Form 923 Instructions.)         Scroll Right for Page 3 >>								
Q	uality of Fuel as Rece	eived			Fuel Transportation				
All	Coal, Pet Coke,	Coal	Coal	Nat	ural Gas	Coal, Pet (	loke and Oil		
Fuels Heat Content	and Oil Sulfur Content	Only Ash Content	Only Mercury Content	Firm Inte	n or erruptible	Predominant Mode	Secondary Mode		
SCHEDULE 2. PAGE 3. COST AND QUALITY OF FUEL RECEIPTS - PLANT LEVEL COAL MINE INFORMATION For fossil-fueled plants 50 megawatts and above (Instructions for SCHEDULE 2. Page 3. are on page 7 of the EIA Form 923 Instructions.)         Coal Mine and Type       Non-EIA923 Data Penuired by MMU									
MSHA ID Number	Name of Mine or Tipple	leave these items t Mine Type	blank. State or Cou of Origin	intry	Cour	ty Fu	el Index		
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# Fuel Data Schedule 3: Boiler Information: Fuel Consumption

- Boiler specific data at plants that burn fossil/organic fuels.
- Excluded from this schedule are conventional hydroelectric plants and all other plants that are not required to report energy consumed (e.g., wind, solar, geothermal, and nuclear).



## Fuel Data Schedule 3: Boiler Information: Fuel Consumption

	SCHEDULE 3. PART A. BOILER INFORMATION FOR STEAM-ELECTRIC ORGANIC-FUELED PLANTS - FUEL CONSUMPTION (Instructions for SCHEDULE 3. Part A. are on page 7 of the FIA Form 923 Instructions.)							
Click here fo	or instructions-	-				,		
Did any bo (If applical	piler produce st ble, please che	eam for purpo ck)	ses other than electric power generatio	on during this reporting	period?			
Prime Mover Code	Boiler ID	Boiler Status	Energy Source (See Table 8 on pages 22 through 23 in the Instructions.)	Quantity Consumed (Enter zero when a fuel has no consumption for this reporting period.)	Type of Physical Units (tons, barrels or Mcf)	Average Heat Content (as burned) (MMBtu per ton, barrel or Mcf)	Sulfur Content (petroleum and coal only, to nearest 0.01%)	Ash Content (coal only, to nearest 0.1%)
If Energy So	ource reported	is OTH, OBS,	OBG, OBL, or OG, please specify:					
			SCHEDULE 3. PART B. F		PRIME MOVER LEVEL			
	or instructions		(Instructions for SCHEDU	ILE 3, Part B, are on pa	ge 9 of the EIA Form 92.	s Instructions.)		
Was stean (If applical	n produced for ble, please ch	r purposes oth eck.)	er than electric power generation durir	ng this reporting period?	?			
Prin	Prime Mover Code Energy Source Quantity Consumed (Enter zero (See Table 8 on pages 22 when a fuel has no consumption through 23 in the Instructions). for this reporting period.) Type of Physical Units (tons, barrels, or Mcf) Average Heat Content (MMBtu per ton, barrel or Mcf)					eat Content r ton, barrel or Mcf)		
					· · ·			

If Energy Source reported is OTH, OBS, OBL, or OG, please specify:

 Save

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# Fuel Data Schedule 4: Fossil/Organic Fuel Stocks

- Must be completed by all plants that burn the following fossil/organic fuels: COAL, WASTE COAL, DISTILLATE FUEL OILS (NO. 2, 4), RESIDUAL FUEL OIL (NO. 6), JET FUEL, KEROSENE, PETROLEUM COKE, NATURAL GAS, BIO-FUEL.
- Natural Gas "stocks": Balance between receipts and consumed fuel.
- Include back-up fuels and start-up and flame-stabilization fuels.
- Note that MMU is requiring the reporting of WASTE COAL and BIO-FUEL stocks.



### **Fuel Data Schedule 4: Fossil Fuel Stocks**

SCHEDULE 4. FOSSIL FUEL STOCKS AT THE END OF THE REPORTING PERIOD AND DATA BALANCE For Coal, Oil, and Natural Gas Plants							
	(Instructions fo	r SCHEDULE 4, are or	n page 10 of the EIA F	orm 923 Instructions.	)		
Click here for instructions							
Energy Source (See Table 8 on pages 22 through 23 in the Instructions.)	Type of Physical Units (tons or barrels)	Previous Month's Ending Stocks (1)	Current Month's Receipts (2)	Current Month's Consumption (3)	Ending Stocks (4)	Adjustment to Stocks (5)	Balance (6) 4 = (1+2-3+5)
Previous Month's Storks plus Receipts minus Consumption plus (or minus) Adjustment should equal Ending Storks.							
The balance will appear in column (6). If the Balance (from Column 6 at	he balance is not zero, p	rovide a comment bel	ow. Identify the fuel o	ode in the comment.		Commont	
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#### **Fuel Data Schedule 5: Generator Information**

• This schedule will be completed for all plants





## **Fuel Data Schedule 5: Generator Information**

SCHEDULE 5. PART A. GENERATOR INFORMATION FOR STEAM-ELECTRIC ORGANIC-FUELED PLANTS (Instructions for SCHEDULE 5. Part A. are on page 11 of the EIA Form 923 Instructions.)						
This schedule will be completed ONLY for generators at steam-electric organic-fueled plants with a total steam turbine capacity of 10 megawatts and above. Click here for instructions						
Prime Mover Code	Generator ID	Generator Status	Gross Generation (MWh)	Net Generation (MWh)		
	99999991-TestUnit1					

SCHEDULE 5. PART B. PRIME MOVER LEVEL GENERATION					
(Instruction	ns for SCHEDULE 5. Part B. are on page 12 of the EIA Form 923 In	structions.)			
This schedule will be completed by steam-electric organic-fueled plants with a total steam turbine capacity less than 10 megawatts,					
Click here for instructions					
Prime Mover Code	Gross Generation (MWh)	Net Generation (MWh)			
4					

SCHEDULE 5. PART C. GENERATION FROM NUCLEAR AND OTHER NON-COMBUSTIBLE ENERGY SOURCES (Instructions for SCHEDULE 5. Part C. are on page 12 of the EIA Form 923 Instructions.)					
-Click here for instructions	uclear plants and by all wind, solar, geo	thermal, hydroelectric, or other plants w	where the energy source is noncombusti	Die,	
Prime Mover Code	Energy Source	Unit Code (nuclear)	Gross Generation (MWh)	Net Generation (MWh)	
'					



# Fuel Data Schedule 6: Source and Disposition of Electricity

• This schedule will be completed by nonutility plants





# Fuel Data Schedule 6: Source and Disposition of Electricity

U.S.Department of Energy Energy Information Administration Form EIA-923 (2008)	POWER PLANT OPERATIONS REPORT		Form Approval OMB No. 1905-0129 Approval Expires: 12/31/2010			
Plant Name: Bayonne						
Plant ID: 2397 State:	Reporting Year: 2010					
SCHEDULE 6. NONUTILITY ANNUAL SOURCE AND DISPOSITION OF ELECTRICITY (Instructions for SCHEDULE 6. are on page 13 of the EIA Form 923 Instructions.)						
SCHEDULE 6 collects calendar year data (no monthly detail). Annual data are due by March 30 following the reporting year. Report all generation in megawatthours (MWh) rounded to a whole number.						
Source of Electricity		Disposition of Electricity				
(1) Gross Generation (Annual)	(	(4) Station Use				
(2) Other Incoming Electricity		(5) Direct Use (For CHPs only)				
	(	(6) Total Facility Use (4 + 5)				
	(	(7) Retail Sales to Ultimate Custo	omers			
	(	(8) Sales for Resale				
	(	(9) Other Outgoing Electricity				
(3) Total Sources (1 + 2)		(10) Total Disposition (6 + 7 + 8	+ 9)			
Т	otal Sources must equal T	otal Disposition (3 = 10)				



# Fuel Data Schedule 7: Annual Revenues from Sales for Resale

• Schedule 7 will be completed by respondents who report a positive value on Schedule 6, Disposition of Electricity.





# Fuel Data Schedule 7: Annual Revenues from Sales for Resale

Plant Name: Bayonne							
Plant ID: 2397 State: Reporting Year: 20	010						
SCHEDULE 7. ANNUAL REVENU (Instructions for SCHEDULE 7. are	<b>ES FROM SALES FOR RESALE</b> e on page 14 of the EIA Form 923 Instructions.)						
SCHEDULE 7 is to be completed by respondents who entered a positive amount on SCHEDUL Sales for Resale. Annual data are due by March 30 following the reporting year. Sales for Resale is energy supplied to other electric utilities, cooperatives, municipalities, Fed	SCHEDULE 7 is to be completed by respondents who entered a positive amount on SCHEDULE 6, Disposition of Electricity, Item 8, Sales for Resale. Annual data are due by March 30 following the reporting year. Sales for Resale is energy supplied to other electric utilities, cooperatives, municipalities, Federal and State electric agencies, or other entities for resale to end-use consumers.						
Annual Revenues from Sales for Resale (in thousand dollars):							
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# Fuel Data Schedule 8, Part A: Environmental – Byproduct Disposition

 Schedule 8 will be completed by fossil/organic-fueled power plants.





# Fuel Data Schedule 8, Part A: Environmental – Byproduct Disposition

#### SCHEDULE 8. ANNUAL ENVIRONMENT INFORMATION

SCHEDULE 8. PARTS A through F are filed annually and must be reported by steam-electric organic-fueled power plants with a total steam turbine capacity of 100 megawatts and above (only plants that reported boiler-level consumption on SCHEDULE 3 Part A) All steam-electric organic-fueled power plants with a total steam turbine capacity of 10 megawatts and above are responsible for filing Schedule 8, Parts C,E, and F. Annual data are due by March 30 following the reporting year.

#### SCHEDULE 8. PART A. ANNUAL BYPRODUCT DISPOSITION

(Instructions for SCHEDULE 8 Part A. are on page 14 of the EIA Form 923 Instructions.)

Enter the quantity of combustion byproducts for the year by type of disposal (to nearest 0.1 thousand tons). Report sales of steam in million Btu (MMBtu). If actual data are not available, provide an estimated value.

#### NO BYPRODUCTS

		Disposal		Sa	ale or Beneficial U	lse	Stored	Stored	
Byproduct	On-Site Landfill	On-Site Ponds	Disposal Off-site	Sold	Used On-site	Used Off-site	On-site	Off-site	Total
Fly Ash from standard boiler/PCD units									
Fly Ash from units with dry FGC									
Fly Ash from FBC units									
Bottom Ash from standard boiler units									
Bottom (bed) Ash from FBC units									
FCD Cypaum									
Other FGD byproducts									
Ash from coal gasification (IGCC) units									
Other (specify via footnote on SCHEDULE 9)									
Steam Sales (MMBtu)									



# Fuel Data Schedule 8, Part B: Environmental – Financial Information

#### SCHEDULE 8. PART B. FINANCIAL INFORMATION

(Instructions for SCHEDULE 8 Part B. are on page 15 of the EIA Form 923 Instructions.)

If actual data are not available, provide an estimated value.

	Operation and Maintenance (O&M) Expenditures During Year (Thousand Dollars)											
Туре	(1) (2) Fly Ash Bottom Ash		(2) Bottom Ash	(2) (3) Bottom Ash Desulfo		(4) Water Pollution Abatement		(5) Other Pollution Abatement		(6) Total (1+2+3+4+5)		
Collection												
Disposal												
Other												
Capital Expenditures for New Structures and Equipment During Year, Excluding Land and Interest Expense (Thousand Dollars)												
Туре		(7) Air Pollution Abatement		(8) Water Pollution Abatement		(9) Solid/Contained Waste		(10) Other Pollution Abatement				
Amount												
Byproduct Sales Revenue During Year (Thousand Dollars)												
Туре	(11) Fly Ash		(12) Bottom Ash		(13) Fly and Bottom Ash Sold Intermingled	(14 Flu By	4) ue Gas Desulfurization products	(15) Other Byproduc	t Revenue	(16) Total (11+12+13+14+15)		
Amount												



# Fuel Data Schedule 8, Part C: Environmental – Boiler NOx Controls

SCHEDULE 8. PART C. BOILER INFORMATION NITROGEN OXIDE EMISSION CONTROLS (Instructions for SCHEDULE 8 Part C. are on page 16 of the EIA Form 923 Instructions.)

Complete a separate row for each boiler.

Note: The Boiler ID must match the Boiler ID as reported on Form EIA-860, "Annual Electric" Generator Report.

No NOx Controls

Deiley ID	NOx Control In-Service	NOx Emission Rate (lbs/MMBtu)				
Boller 1D	(hours)	Entire Year	May through September			





# Fuel Data Schedule 8, Part D: Environmental – Cooling System Info

#### SCHEDULE 8. PART D. COOLING SYSTEM INFORMATION, ANNUAL OPERATIONS (Instructions for SCHEDULE 8 Part D. are on page 16 of the EIA Form 923 Instructions.)

Note: Cooling System ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report." Complete a separate row for each cooling system.

Cooling System ID	Cooling System Status	Annual Amount of Chlorine	Average . (0.1 ft^3	Annual Rate of Cooli /sec)	ng Water	Maximum Cooling V at intake (F)	Vater Temperature	Maximum Cooling Water Temperature at Discharge Outlet (F)	
		(1000 lbs)	Withdrawal	Discharge	Consumption	Winter Peak Month	Summer Peak Month	Winter Peak Month	Summer Peak Month



# Fuel Data Schedule 8, Part E: Environmental – Flue Gas Particulate Collection

SCHEDULE 8. PART E. FLUE GAS PARTICULATE COLLECTION INFORMATION

(Instructions for SCHEDULE 8 Part E. are on page 17 of the EIA Form 923 Instructions.)

Does not apply.

Complete a separate row for each flue gas particulate collector.

Thus Cas Daubiculate	ECD Collector		Typical Particulate	Removal Efficiency of Particulate Matter (nearest 0.1% by weight)				
Collector ID	Status	Hours In-Service	Emissions Rate (nearest .01 lb/MMBtu)	At Annual Operating Factor	At 100% Load or Tested Efficiency	Date of Most Recent Efficiency Test (e.g., 12-2005)		





# Fuel Data Schedule 8, Part F: Environmental – Flue Gas Desulfurization

#### SCHEDULE 8. PART F. FLUE GAS DESULFURIZATION UNIT INFORMATION - ANNUAL OPERATIONS (Instructions for SCHEDULE 8 Part F. are on page 19 of the EIA Form 923 Instructions.)

Does not apply.

Note: Flue Gas Desulfurization ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report." Complete a separate row for each Flue Gas Desulfurization Unit.

ANNUAL OPERATIONS											
Flue Cec	ECD Upit	Hours	Quantity of FGD	Electrical Energy	Removal Efficiency of Sulfur Dioxide (nearest 0.1% by wt)						
Desulfurization Unit ID	Status	Status In-Service		Consumption (MWh)	At Annual At 100% Load or Operating Factor Tested Efficiency		Date of Most Recent Efficiency Test (e.g., 12-2005)				
	OPERATI	ON AND MAINTENAN	CE EXPENDITURES DUI	RING YEAR, EXCLUDI	NG ELECTRICITY (TH	IOUSAND DOLLARS)					
Flue Gas Desulfurization Un	nit ID and	d Materials Chemicals	Labor and Supervision	Waste Di	sposal Ma an	intenance, Materials, d All Other Costs	Total				



### **Fuel Data Schedule 9: Comments**

		~ · · · ·	SCHEDULE 9. COMM	IENTS								
	(Instructions for SCHEDULE 9, are on page 20 of the EIA Form 923 Instructions.) Comment Section: Explain any unusual values, occurences, or changes in ownership.											
Schedule	Part	Item			Comment							
		Changes i (Provide name of p	in Ownership ourchaser and date sol	d.)								
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### **Additional Unit Data**

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Ad	dministra	ation Fuel Policy	у Орра	rtunity Cost 923 Pow	ver Plant Oper	ations Report	Operation Da	ta Validation Card Data	a Reports To	ols Logout Help	)		
						N	on-EIA923	Unit Data					
	🔞 Re	etrieve Year:	2010	Month: Jul 💌	Company:	98765432-ZZZT	estCo 💌	Unit: 999999991-TestUr	nit1 Plant to 2397-8	) which the Unit be ayonne	longs:		
		Unit		Month		Year		Average full load heat rate (Mmbtu/MW	h) Aver	rage mimimum load : rate (Mmbtu/MWI	l 1)	VOM in \$/MWh	
		99999991-Tes	tUnit1		7		2010						
							Sa	ve					
	(	©2010		www.monito	ringanalyt	ics.com	÷	38			Monitori	ng Analyt	tics

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