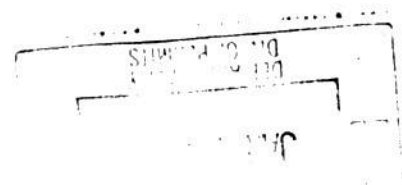


EPA  
SO2



## Grays Ferry Cogeneration Partnership

2600 Christian Street  
Philadelphia, PA 19146

SO2 Operating Permit

July 27, 2000

City of Philadelphia  
Department of Public Health  
Air Management Services

Permit No. SO2-95-002A

Expiration Date: None

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City of Philadelphia  
Department of Public Health  
Air Management Services

Effective Date: July 27, 2000

Expiration Date: None

Replaces Permit No. None

## SECTION A. SOURCE IDENTIFICATION

In accordance with the provisions of the Pennsylvania Code Title 25, Philadelphia Code Title III, and Air Management Regulation (AMR) XIII, the owner or operator (Permittee) identified below is authorized by Philadelphia Air Management Services (AMS) to operate the air emission source(s) listed in Table A-1. This facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the Permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

Facility: Grays Ferry Cogeneration Partnership

Permittee: Grays Ferry Cogeneration Partnership

Location: 2600 Christian Street, Philadelphia , PA 19146

Mailing Address: 2600 Christian Street, Philadelphia, PA 19146

SIC Code(s): 4911

Plant ID(s): 4944

Authorized Account Representative: Herman Schopman

Phone: (215) 875-6900

Permit Contact: Brian Houghton

Phone: (215) 875-6900

Responsible Official: Herman Schopman

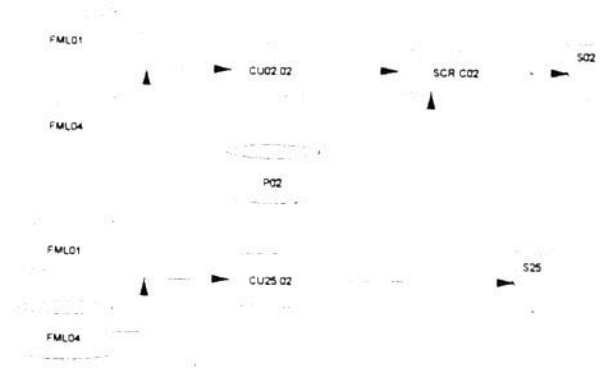
Title: President

  
Thomas Huynh  
Chief of Source Registration

Date: 7/27/2000

TABLE A1-FACILITY INVENTORY LIST

ID	Group Source Name	Capacity	Fuel/Material	Construction Date
Group 01 - Turbine (with and without HRSG) and Boiler #25				
CUJ02 01	501D5A Combustion Turbine	1515 MMBTU/hr	#2 Oil, kerosene, and natural gas	
	And Heat Recovery Steam Generator (HRSG)	366 MMBTU/hr	#2 Oil, kerosene, and natural gas	
CU25 01	Auxiliary Boiler #25	1059 MMBTU/hr	#2 Oil, kerosene, natural gas	
C02	Selective Catalytic Reduction System (SCR)			
P02	Ammonia Storage Tank	10,000 gal	27.5% ammonia	
S02	Turbine/HRSG/SCR Stack			
S25	Boiler #25 Stacks			
FML01 IN	#1 Fuel Oil Storage Tank	504,000 gal	#2 Oil, kerosene	
FML04 IN	Natural Gas Pipe Line		natural gas	



PROCESS FLOW GRAYS FERRY COGENERATION PARTNERSHIP

## SECTION B. SPECIAL CONDITIONS

### 1. SO2 Limitation

- (a) The Combustion Turbine (CT) and Heat Recovery Steam Generator (HRSG) and Boiler # 25 may not burn fuel oil that contains sulfur in excess of 0.2 % by weight.

### 2. Work Practice Standard

- (a) Boilers #23, #24, #25, #26, and CT/HRSG

- (1) No more than four of the above units (Units #23, 24, and 26 are owned by Trigen, and all units are operated by Trigen) shall be operated simultaneously.
- (2) The boiler #23 or #24 can be operated at any load when only one unit is operating at a time. [Trigen's SO2 Demonstration commitment on 12/1/97]
- (3) The boilers #23 and #24 are limited to 73.7% of full load when both units are operating simultaneously. [Trigen's SO2 Demonstration commitment on 12/1/97 and 6/19/2000]

- (b) The Permittee shall operate its sources in accordance with the stack and diameter parameters established in the dispersion model submitted to AMS on December 1, 1997.

Source	Stack Height (Ft.)	Stack Diameter (Ft.)
Boiler# 23	223.6	16
Boiler# 24	223.6	16
Boiler# 25	255	10.5
Boiler# 26	255.9	15
CT /HRSG	255	18

- (c) The Permittee shall remodel to demonstrate compliance with the National Ambient Air Quality Standard (NAAQS) for SO2 when AMS has cause to believe that the attainment or maintenance of the standard is in jeopardy.

### 3. Testing Requirements

[25 Pa Code §139]

- (a) Test Methods

- (1) ASTM D1266, D129, D1552, D2622 or D270 shall be used for sulfur in fuel.
- (2) ASTM 4294 for sulfur in fuel can be used when the Permittee supports the data with a quality control plan and demonstrates the ability to accurately perform this test.

- (3) The Permittee may use alternative test methods to those listed in this section if they are given prior approval by AMS in accordance with 25 Pa Code §139.3.

#### 4. Monitoring Requirements

[25 Pa Code §§127.511, 139 & §§114 (a)(3), 504 (b) of Clean Air Act]

- a) The Permittee shall monitor the percent sulfur in each fuel oil upon delivery. An oil sample shall be tested for each barge delivery and a daily composite shall be tested for each truck delivery.
- b) The CT and HRSG shall not be connected to FML02 (the fuel oil storage tank for the boilers).

#### 5. Recordkeeping Requirements

[25 Pa Code §§127.511, 135.21, 135.5, & 139]

The Permittee shall keep the following records:

- (a) Daily hours of operation, power generation, fuel type, fuel usage, and sulfur analysis, and any supporting calculations used to determine emissions.

#### 6. Reporting Requirements

[25 Pa Code §127.511(c) & AMR I Sec. II]

- (a) Any violation of an emission limitation shall be reported (by phone call or facsimile transmission) to AMS within 24 hours of detection and followed by written notification within thirty-one (31) days.
- (b) The Permittee shall submit to AMS semiannual reports of the performance of the facility using the City of Philadelphia Monitoring Report Form. These reports shall consist of the following:
  - (1) A description of any deviations from permit requirements that occurred during the six-month reporting period, the probable cause of such deviations, and corrective actions or preventive measures taken.

#### 7. Permit Expiration

[25 Pa Code §127.446]

- (a) This operating permit shall not have an expiration date, as it is a revision to the Commonwealth of Pennsylvania's State Implementation Plan (SIP) for SO<sub>2</sub>. This permit shall remain in effect until any subsequent revision to the SIP requires the modification of the permit.

#### 8. Federally Enforceability

[25 Pa Code §127.424]

- (a) This permit shall remain enforceable by the U.S. EPA as to SO<sub>2</sub> emission sources as part of the Pennsylvania SIP, as to requirements generally applied by EPA.

## 9. Submissions

- (a) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

Chief of Source Registration  
Air Management Services  
321 University Ave.  
Philadelphia, PA 19104-4543