COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Spruance Genco, LLC
Richmond, Virginia
Permit No. PRO-51033

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Spruance Genco, LLC has applied for a Title V Operating Permit for its Richmond facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____ Date: _____

Air Permit Manager:_____ Date: _____

Deputy Director:_____ Date: _____

FACILITY INFORMATION

Permittee/Facility
Spruance Genco, LLC
5001 Commerce Boulevard
Richmond, VA 23234

County/Plant ID No. 51-760-0399

SOURCE DESCRIPTION

NAICS Code: 221112 - Electric power generation, transmission, or distribution.

Spruance Genco, LLC is a cogeneration plant which combusts fuel in 8 boilers, each rated at 375 million BTU per hour to produce steam. A portion of the steam is sold to an industrial host. The rest is used to drive 4 turbine-generators to provide electricity, which is sold to Virginia Power. The major units at the facility are the 8 boilers. The configuration is that 2 boilers are connected to 1 turbine generator and are exhausted through a common stack. Each boiler is rated at 375 million BTU per hour. The boilers are permitted for a variety of fuels. Emissions of NO_x are controlled by flue gas recirculation with methane reburn. NO_x may also be controlled by urea injection. Emissions of SO_2 are controlled by spraying atomized recycle ash/lime slurry into the gas path (dry flue gas desulfurization). Emissions of particulate matter are controlled by pulse jet fabric filter baghouses. The combustion gases from two baghouses exhaust to a common stack.

Other emission sources on the plant site include the solid fuel handling operations and the ash handling operations, and slurry preparation activities.

The facility is a Title V major source as determined by the potential to emit of the following criteria pollutants: PM10, SO_2, NO_x, and CO. The facility is also a Title V major source as determined by the potential to emit of HCL, which is a hazardous air pollutants.

This source is located in an attainment area for all pollutants, and is a PSD major source. The facility was previously permitted under a PSD permit issued on January 2, 1991. The most recent amendment to this permit is dated February 12, 2001. The most recent amendment (prior to this one) to the Title V Operating Permit was on December 1, 2003 for the NOx Budget Program.

COMPLIANCE STATUS

The facility is inspected once per year. The last inspection took place on 02/10/2004; the facility was found to be in compliance.

Title V Amendment

The Title V - Federal Operating permit for Spruance Genco, LLC (at the time the facility was called Cogentrix of Richmond) was originally effective on June 4, 2001. The permit was re-opened to add the CAM plan for Particulate Matter applicable requirements to it. The applicable requirements were copied from the boilerplate and pasted into the Title V permit in Section IV (page 16 and 20). Other changes include the following (the majority of which are elaborations and corrections to more accurately reflect how

the facility operates):

- Added “incorporated if needed” after methane reburn in the facility description on page 1. This is to reflect the option of this or using SNCR, rather than just reburn.
- Added “and gas reburn” under footnote (1) on page 3, to accurately reflect actual operation.
- Added “, bagfilter and in-line filter” to cyclone in footnote (1) on page 4. Also corrected cyclone and baghouse to be listed as two separate units.
- On page 5, changed footnote (1) to read “(1) The vacuum pumps are controlled by a cyclone, bagfilter and in-line filter. The cyclone’s exhaust is controlled by the baghouse. The cyclone and baghouse are two separate units. Each is assigned a PCP ID number. The exhaust from the secondary collectors (2 each), consisting can be diverted to one of the three vacuum pumps.” Also changed Unit 1-4 Recycle Ash tables to reflect the removal of the Emission Unit/PCP ID 1-5 bucket elevator and silo binvent. This occurred because the bucket elevator is entirely enclosed and therefore is not considered an emission point.
- On page 8, the word “may” replaced “shall” in condition 2, after “Flue Gas recirculation” to indicate that this would occur only when necessary.
- On page 13, condition 9, “from the individual boilers” was inserted after “continuous monitoring systems measuring NOx”
- On page 18, condition 3 a. the word “wet” was replaced by “set.”
- On page 20, condition E.1.c, TDF and E-fuel have been removed because the reporting has already occurred and additionally because E-fuel is no longer used at this facility.
- On the same page, the reporting periods in condition 2 have been expounded to explain the range that they encompass.
- On page 21, a typo was removed in condition 5.g.
- On page 25, condition 10, “on a dry-weight basis” was added after “12-month period” to delinieate how the calculation is derived.

Since the Title V permit was issued, the Title V boilerplate language has been updated. At this time it was decided not to change the language in the previously issued Title V permit since no changes were occurring in those sections of the permit. The original Title V permit referred to new source review regulations in 9 VAC 5-80-10 and 5-80-11, which have been replaced with the Article 6 regulations. These upates have been inserted into this permit renewal.

The effective date and expiration date of this permit have been changed to June 5, 2006 to June 5, 2011. This permit renewal is also a significant modification due to the changes in recordkeeping and reporting and is required to go through a public participation phase, additionally it is required that EPA be allowed a 45-day comment period on Title V modifications.

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EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility, all of which were constructed on or after January 2, 1991, consist of the following :

EU ID	Stack ID	EU Description	Size/Rated Capacity
1A	001	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
1B	001	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
2A	002	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
2B	002	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
3A	003	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
3B	003	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
4A	004	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
4B	004	Combustion Engineering Stoker Boiler	295,000 lbs steam/hr 375 mmBtu/hr
FS3	fugitive	Solid fuel unloading and stock out: unloading hopper, covered conveyor, stock out tube	600 tons solid fuel/hr
1-2A	1-2A	Boiler 1A solid fuel storage bunker	270 tons solid fuel/hr
1-2B	1-2B	Boiler 1B solid fuel storage bunker	270 tons solid fuel/hr
2-2A	2-2A	Boiler 2A solid fuel storage bunker	270 tons solid fuel/hr
2-2B	2-2B	Boiler 2B solid fuel storage bunker	270 tons solid fuel/hr
3-2A	3-2A	Boiler 3A solid fuel storage bunker	270 tons solid fuel/hr
3-2B	3-2B	Boiler 3B solid fuel storage bunker	270 tons solid fuel/hr
4-2A	4-2A	Boiler 4A solid fuel storage bunker	270 tons solid fuel/hr
4-2B	4-2B	Boiler 4B solid fuel storage bunker	270 tons solid fuel/hr
Unit 1 and 2 Ash System (1-3) rated at 4 tons of ash/hr			
1-3	1-3A	Bottom ash storage silo	
1-3	1-4A	Fly ash storage silo	
1-3	1-3B	Vacuum pump	
1-3	1-3C	Vacuum pump	
1-3	1-3D	Vacuum pump	
1-3	1-3G (fugitive)	wet unloader/pugmill	
1-3	1-4B (fugitive)	wet unloader/pugmill	
Unit 3 and 4 Ash System (3-3) rated at 4 tons of ash/hr			
3-3	3-3A	Bottom storage silo	

EU ID	Stack ID	EU Description	Size/Rated Capacity
3-3	3-4A	Fly ash storage silo	
3-3	3-3B	Vacuum pump	
3-3	3-3C	Vacuum pump	
3-3	3-3D	Vacuum pump	
3-3	3-3G (fugitive)	wet unloader/pugmill	
3-3	3-4B (fugitive)	wet unloader/pugmill	
Unit 1 Recycle Ash System rated at 4 tons of ash/hr			
1-5B	1-5B	Truck unloader	
1-5	1-5	Storage silo (recycle ash)	
1-6	1-6	Storage silo (pelletized lime)	
Unit 2 Recycle Ash System rated at 4 tons of ash/hr			
2-5B	2-5B	Truck unloader	
2-5	2-5	Storage silo (recycle ash)	
2-6	2-6	Storage silo (pelletized lime)	
Unit 3 Recycle Ash System rated at 4 tons of ash/hr			
3-5B	3-5B	Truck unloader	
3-5	3-5	Storage silo (recycle ash)	
3-6	3-6	Storage silo (pelletized lime)	
Unit 4 Recycle Ash System rated at 4 tons of ash/hr			
4-5B	4-5B	Truck unloader	
4-5	4-5	Storage silo (recycle ash)	
4-6	4-6	Storage silo (pelletized lime)	

Control equipment consists of the following:

Stack ID	EUID	PCD ID	PCD description	Pollutant Controlled/CE	Permit Date
1	1A	1A	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
1	1B	1B	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
2	2A	2A	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
2	2B	2B	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
3	3A	3A	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
3	3B	3B	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
4	4A	4A	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
4	4B	4B	Joy PP6014-272-6 Module fabric filter baghouse	PM/99.9%	02/12/2001
1	1A	1C	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
1	1B	1D	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
2	2A	2C	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
2	2B	2D	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
3	3A	3C	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
3	3B	3D	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
4	4A	4C	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
4	4B	4D	Joy-Niro Dry Flue Gas Desulfurization	SO_2/90%	02/12/2001
1	1A	1E	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
1	1B	1F	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
2	2A	2E	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
2	2B	2F	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
3	3A	3E	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
3	3B	3F	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
4	4A	4E	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001

Stack ID	EUID	PCD ID	PCD description	Pollutant Controlled/CE	Permit Date
4	4B	4F	Flue Gas Recirculation w/Natural Gas Reburn and urea injection	NO_x/65%	02/12/2001
1-2A	1-2A	1-2A	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
1-2B	1-2B	1-2B	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
2-2A	2-2A	2-2A	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
2-2B	2-2B	2-2B	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
3-2A	3-2A	3-2A	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
3-2B	3-2B	3-2B	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
4-2A	4-2A	4-2A	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
4-2B	4-2B	4-2B	Dalamatic DLMV15 fabric filter baghouse	PM/99.9%	02/12/2001
1-3A	1-3A	1-3A	A-S-H fabric filter baghouse	PM/99.9%	02/12/2001
1-4A	1-4A	1-4A	A-S-H fabric filter baghouse	PM/99.9%	02/12/2001
3-3A	3-3A	3-3A	A-S-H fabric filter baghouse	PM/99.9%	02/12/2001
3-4A	3-4A	3-4A	A-S-H fabric filter baghouse	PM/99.9%	02/12/2001
1-3B,C,D	1-3B,C,D	1-3E & 1-3F	A-S-H T-42 Fly ash secondary collector with Flex-Kleen 100-CTWC-38 IIG fabric filter baghouse	PM/85% & 99%	02/12/2001
1-3B,C,D	1-3B,C,D	1-4C	A-S-H T-42 Bottom ash silo primary collector	PM/85%	02/12/2001
1-3B,C,D	1-3B,C,D	1-4D	A-S-H T-42 Bottom ash silo primary collector	PM/85%	02/12/2001
3-3B,C,D	3-3B,C,D	3-3E & 3-3F	A-S-H T-42 Fly ash secondary collector with Flex-Kleen 100-CTWC-38 IIG fabric filter baghouse	PM/85% & 99%	02/12/2001
3-3B,C,D	3-3B,C,D	3-4C	A-S-H T-42 Bottom ash silo primary collector	PM/85%	02/12/2001
3-3B,C,D	3-3B,C,D	3-4D	A-S-H T-42 Bottom ash silo primary collector	PM/85%	02/12/2001
1-3G	1-3G	1-3G	A-S-H C-40 Pugmill	PM/85%	02/12/2001
1-4B	1-4B	1-4B	A-S-H C-40 Pugmill	PM/85%	02/12/2001
3-3G	3-3G	3-3G	A-S-H C-40 Pugmill	PM/85%	02/12/2001
3-4B	3-4B	3-4B	A-S-H C-40 Pugmill	PM/85%	02/12/2001
1-5A	1-5A	1-5A	Semco silo binvent	PM/99%	02/12/2001
1-5B	1-5B	1-5B	ASH C-40 Pugmill or Dry unloader	PM/98%	02/12/2001
1-5	1-5	1-5	Griffen JV-36-4X Binvent	PM/99.9%	9/27/2000

Stack ID	EUID	PCD ID	PCD description	Pollutant Controlled/CE	Permit Date
1-6	1-6	1-6	Griffen JV-36-4X Binvent	PM/99%	02/12/2001
2-5A	2-5A	2-5A	Semco silo binvent	PM/99%	02/12/2001
2-5B	2-5B	2-5B	ASH C-40 Pugmill or Dry unloader	PM/98%	02/12/2001
2-5	2-5	2-5	Griffen JV-36-4X Binvent	PM/99.9%	9/27/2000
2-6	2-6	2-6	Griffen JV-36-4X Binvent	PM/99%	02/12/2001
3-5A	3-5A	3-5A	Semco silo binvent	PM/99%	02/12/2001
3-5B	3-5B	3-5B	ASH C-40 Pugmill or Dry unloader	PM/98%	02/12/2001
3-5	3-5	3-5	Griffen JV-36-4X Binvent	PM/99.9%	9/27/2000
3-6	3-6	3-6	Griffen JV-36-4X Binvent	PM/99%	02/12/2001
4-5A	4-5A	4-5A	Semco silo binvent	PM/99%	02/12/2001
4-5B	4-5B	4-5B	ASH C-40 Pugmill or Dry unloader	PM/98%	02/12/2001
4-5	4-5	4-5	Griffen JV-36-4X Binvent	PM/99.9%	9/27/2000
4-6	4-6	4-6	Griffen JV-36-4X Binvent	PM/99%	02/12/2001
FS-3	FS-3	FS-3	Deter Series 5000 surfactant spray	PM/99%	02/12/2001

As indicated in the above chart, each boiler is configured with the following control equipment:

(1) a Joy PP6014-272-6 Module fabric filter baghouse with a design control efficiency of 99.9% for PM;
(2) a Joy-Niro dry flue gas desulfurization system with a design control efficiency of 90% for SO_2; and
(3) Flue gas recirculation with natural gas reburn with a design control efficiency of 65% for NOx. Urea injection may also be used to achieve emission rates that may be required in new regulations.

Control Efficiencies indicated in this chart are for informational purposes only. In situations where control efficiencies of control equipment are requirements, the control efficiencies are be listed in the Title V permit and this Statement of Basis in the section under ALimitations≅ and will have associated monitoring for compliance determinations.

EMISSIONS INVENTORY

The following table shows the potential to emit of the facility for the criteria pollutants and for non-VOC, non-PM10 HAP for which the source is major:

Pollutant	PTE in tpy
PM10	236.5
SO_2	1708.2
NO_x	3942.0
CO	2628.0
Sulfuric Acid Mist	40.0
HF	7.5
HCL	60.0

2004 Actual Emissions

	2004 Criteria Pollutant Emission in Tons/Year				
EU ID	**VOC**	**CO**	**SO_2**	**PM_{10}**	**NO_x**
1A & 1B	3.63	128.05	244.66	3.24	760.13
2A & 2B	3.78	137.10	270.36	3.54	795.21
3A & 3B	3.67	129.55	263.24	3.36	745.59
4A & 4B	3.87	136.8	273.53	3.54	851.09
1-2A; 1-2B; 2-2A; 2-2B; 3-2A; 3-2B; 4-2A; 4-2B, FS3 (Coal storage bunkers and coal fugitives)				0.4	
1-3 & 3-3 (Ash systems)				0.16	
1-5; 2-5; 3-5; 4-5 (Recycle Ash Silos)				18.14	
Total	15.39	531.59	1057.80	32.38	3152.16

2004 Hazardous Air Pollutant Emissions in Tons/Year							
Pollutant Emissions, tpy	Boilers 1A & 1B exiting stack 1	Boilers 2A & 2B exiting stack 2	Boilers 3A & 3B exiting stack 3	Boilers 4A & 4B exiting stack 4	Solid fuel storage bunkers 1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, 4-2B and solid fuel unloading & stock out FS3	Ash systems 1-3 and 3-3	Ash Silos 1-5, 2-5, 3-5, 4-5
Arsenic	.000	.000	.000	.0021	.0000018	.0000025	.0000000029
Benzene	.14	.15	.14	.15			
Beryllium	.0024	.00064	.00087	.00062	.0000016	.00000015	.00000000017
di(2-ethylhexy)phthalate	.021	.022	.015	.012			
Bromine/Bromides	.12	.12	.086	.072	.00000025		
Cadmium							.000000000073
Chromium	.015	.0078	.0076	.0058	.000000018	.000000043	.000000000011
Chlorides					.00036		
Cobalt	.0026	.0012	.0012	.00091	.0000011	.000001	.00000000085
Dibenzofurans	.0000067	.0000068	.0000046	.0000039			
Dimethyl phthalate	.00038	.00039	.00026	.00022			
Dibutylphthalate	.022	.023	.015	.013			
Fluoride					.000011		.00000000046
Formaldehyde	.031	.32	.03	.18		.00000072	.000000022
HCL	9.83	10.15	10.28	10.71		.000000048	.0000000424

2004 Hazardous Air Pollutant Emissions in Tons/Year							
Pollutant Emissions, tpy	Boilers 1A & 1B exiting stack 1	Boilers 2A & 2B exiting stack 2	Boilers 3A & 3B exiting stack 3	Boilers 4A & 4B exiting stack 4	Solid fuel storage bunkers 1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, 4-2B and solid fuel unloading & stock out FS3	Ash systems 1-3 and 3-3	Ash Silos 1-5, 2-5, 3-5, 4-5
HF	1.23	1.3	1.28	.46			.00000000048
Hexachlorobenzene	.00011	.00012	.000078	.000066			
Pb	.0074	.0029	.0032	.0024	.0000018	.0000031	.0000000036
Manganese	.0067	.0033	.0033	.0025	.0000012	.00000048	.000000000054
Hg	.000089	.000035	.000039	.000029	.0000000071	.0000000029	.000000000027
Naphthalene	.0067	.0068	.0046	.0039			
Nickel	.014	.0081	.0074	.0058	.0000039	.0000075	.0000000021
Nitric acid							.0000000015
PCB (total)	.005	.0052	.0035	.0029			
Pentachlorophenol	.000094	.000096	.000064	.000054			
Phosphorus	.0014	.00043	.00044	.00032	.00011	.000025	.0000000083
POM (total)	.00066	.00067	.00045	.00038			
Radionuclides	.00000015	.000000048	.000000047	.000000034		.00000000000000028	1.2×10^{-19}
Selenium	.51	.53	.37	.31	.000000025	.00000087	.0000000022
Sulfuric acid mist	2.2	2.2	3.5	1.4			
Tetrachlorodibenzene-p-Dioxin	.0000022	.0000023	.0000015	.0000013			
Trichlorobenzene	.0000011	.0000011	.00000076	.00000064			

2004 Hazardous Air Pollutant Emissions in Tons/Year							
Pollutant Emissions, tpy	Boilers 1A & 1B exiting stack 1	Boilers 2A & 2B exiting stack 2	Boilers 3A & 3B exiting stack 3	Boilers 4A & 4B exiting stack 4	Solid fuel storage bunkers 1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, 4-2B and solid fuel unloading & stock out FS3	Ash systems 1-3 and 3-3	Ash Silos 1-5, 2-5, 3-5, 4-5
Trichlorophenol	.0000069	.0000071	.0000047	.000004			

EMISSION UNIT APPLICABLE REQUIREMENTS:

Definitions to be used in the Title V permit: In general, most Title V permits do not contain a ADefinitions≅ section, instead relying on the generally acceptable English definitions of terms and conditions used in the permit. However, Subpart Da contains certain terms that have specific definitions that are not immediately apparent. Therefore, this permit will contain a ADefinitions≅ section that lists the definitions given in 40 CFR 60.41a and in the general provisions (Subpart A) for some of the terms used in the permit.

Potential Combustion Concentrations: Certain limitations in Subpart Da are based on Potential Combustion Concentrations, defined in 40 CFR 60.41a. The following lists the PCC=s for this facility:

PM =7.0 lbs/mmbtu for solid fuels
=.17 lbs/mmbtu for liquid fuels
NOx =.67 lbs/mmbtu for gaseous fuels
=.72 lbs/mmbtu for liquid fuels
=2.3 lbs/mmbtu for solid fuels
SO_2 (60.48a(c)) %Ps=[(100-%Rf)(100-%Rg)]/100 where:
%Ps=% potential SO2 emissions
%Rf=% reduction fuel pretreatment
%Rg=%reduction by SO2 controls
In this case, Rf=0, and Rg=90 so that %Ps = 10%

The definition for Potential Combustion Concentrations won't be listed in the TV permit. It is listed here for clarity since other applicable requirements refer to it.

Affected Facility: Each electric utility steam generating unit.
(40 CFR 60.40a)

Steam Generating Unit: Any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam.

Boiler Operating Day: means a 24 hour period during which fossil fuel is combusted in a steam generating unit for the entire 24 hours.

Definitions from 40 CFR 60.13(e)

Opacity Monitoring System Data Point: a minimum of one cycle of sampling and analyzing for each successive 10 second period and 1 cycle of data recording for each successive 6 minute period.

Gaseous Emission Monitor Data Point: a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15 minute period.

<u>Facility requirements from the February 12, 2001 permit:</u>

Limitations

#4 TSP & PM10 from boilers controlled by spray dryer/fabric filter system w/ minimum of 99.9% control.
(9 VAC 5-50-280)

#5 PM from rail car loading, stock out conveyor discharge, active solid fuel pile, inactive solid fuel pile, and other solid fuel handling operations (FS3) controlled by wet suppression.
(9 VAC 5-50-280)

#6 PM from fly ash silos, bottom ash silos, recycle ash silos and fuel bunkers (1-4A, 3-4A, 1-3A, 3-3A, 1-5, 2-5 3-5 4-5 1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, &4-2B) controlled by fabric filters rated at 99.9% efficiency.
(9 VAC 5-50-280)

#7 PM from wet spray mix recycle ash silo unloading/truck loading (1-3G, 1-4B, 3-3G, and 3-4B) controlled by wet suppression.
(9 VAC 5-50-280)

#8 PM from dry recycle ash silo unloading/truck loading (1-5B, 2-5B, 3-5B, 4-5B) controlled by fabric filter and partial enclosure with a minimum 98% efficiency.
(9 VAC 5-50-280)

#9 NOx from each boiler (1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) controlled by FGR and supplemented with methane reburn.
(9 VAC 5-50-280)

The boilers have all been retrofitted with FGR. Therefore, the wording of this condition will be changed slightly to reflect the current design of the facility.

#10 NOx from burners firing oil or gas in each boiler (1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) controlled by use of low NOx burners.
(9 VAC 5-50-280)

#11 SO2 emissions from boilers (1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) controlled by lime spray dryer/fabric filter. 90% reduction on 30 day rolling average.
(9 VAC 5-50-280 & 9 VAC 5-50-40)

#12 PM from solid fuel handling systems (1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, 4-2B) limitations:

TSP	1.8 lbs/day	0.3 tpy
PM10	1.8 lbs/day	0.3 tpy

(9 VAC 5-50-280)

#13 PM from dry recycle ash unloading systems (1-5B, 2-5B, 3-5B, 4-5B) limitations:

TSP	0.3 lbs/hr	1.3 tpy
PM10	0.3 lbs/hr	1.3 tpy

(9 VAC 5-50-280, 9 VAC 5-50-90)

#14 Stack emissions from each pair of boilers shall not exceed:

Formaldehyde	1.95×10^{-1} lbs/hr
Mercury	5.12×10^{-3} lbs/hr

(9 VAC 5-50-160)

#15 Stack emissions from operation of each pair of boilers shall not exceed the limitations below:

TSP	15.0 lbs/hr	64.7 tpy
PM10	13.5 lbs/hr	59.1 tpy
SO2	97.5 lbs/hr	427.1 tpy
NOx	225.0 lbs/hr	985.5 tpy
CO	150.0 lbs/hr	657.0 tpy
VOC	2.3 lbs/hr	9.9 tpy

(9 VAC 5-50-280)

#16 Combined emissions from boilers not to exceed:

TSP	262.8 tpy
PM10	236.5 tpy
SO2	1708.2 tpy
NOx	3942.0 tpy
CO	2628.0 tpy
VOC	39.4 tpy

(9 VAC 5-50-280)

#17 Stack emissions from each pair of boilers not to exceed:

TSP	(Method 5)	0.02 lbs/mmBtu
PM10	(Method 201)	0.018 lbs/mmBtu
SO2	(Method 19)	0.13 lbs/mmBtu on a 3 hour rolling average
NOx	(Method 19)	0.30 lbs mmBtu on a 30 day rolling average (not gaseous fuel)
NOx	(Method 19)	0.20 lbs/mmBtu on a 30 day rolling average (gaseous fuel)
NOx	(Method 19)	0.3*X+0.2*Y when firing mix of fuels where X=% of total heat input from liquid and solid fuels Y=% of total heat input from gaseous fuels
CO	(Method 10)	0.2 lbs/mmBtu
VOC	(Method 25A)	0.003 lbs/mmBtu
Be	(Method 104)	2.510^{-4}lbs/hr
Sulfuric Acid Mist	(Method 8)	2.3 lbs/hr

(9 VAC 5-50-280)

The wording of this condition will be changed slightly in the TV permit. The NO_x emission standard will be changed to "each boiler" instead of "each pair of boilers" since this language better mirrors the language of the NSPS requirement.

#19 Lime spray/fabric filter for each boiler (1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B) to achieve 90% removal of SO_2 on 30 day rolling average determined by Method 19.
(9 VAC 5-50-280)

#20 Visible emissions from boiler stacks not to exceed 10%, with one excursion per hour of 20%.
(9 VAC 5-170-160)

#21 Visible emissions from all fabric filters (not on boilers) not to exceed 5%.
(9 VAC 5-170-160)

#22 Visible emissions from solid fuel handling (FS-3) not to exceed 7% opacity. Wet suppression to be used as necessary during handling operations.
(9 VAC 5-170-160)

#23 Visible emissions from dry recycle ash unloading (1-5B, 2-5B, 3-5B, 4-5B) not to exceed 10% opacity.
(9 VAC 5-50-90)

#28 Approved fuels listing. Change in fuels other than those listed may require a permit to modify and operate:

Gaseous Fuels	Liquid Fuels	Solid Fuels
Natural gas	Distillate oil Residual oil	Bituminous coal Tire derived fuel (TDF) Wood chips Pelletized paper fuel (PPF) Fly ash briquettes E-Fuel

(9 VAC 5-170-160)

#29 Defines distillate as #1 and #2. Defines residual as #4, #5, and #6. Requires fuel supplier certification and information on fuel oils.
(9 VAC 5-170-160)

#31 TDF blended with coal at a ratio not to exceed 20% of the heat input to boiler.
(9 VAC 5-170-160)

#32 Annual throughput limitation of each type of fuel:

Fuel	Each Boiler	Entire Facility
Gaseous Fuel	674×10^6 ft^3/yr	$5,392 \times 10^6$ ft^3/yr
Liquid Fuel	$4,836 \times 10^3$ gal/yr	$38,688 \times 10^3$ gal/yr
Solid Fuel	124,392 tons/yr	995,136 tons/yr

(9 VAC 5-170-160)

#33 Annual throughput limitation for mixed fuel use:

$(27.08 \times 10^6 \text{ btu/tn})*X + (145.0 \times 10^3 \text{ btu/gal})*Y + (1.02 \times 10^3 \text{ btu/ft}^3)*Z < 3,275 \times 10^{12}$ btu/year/boiler

Where: X = tpy of solid fuel fired in the boiler
Y = gallons/year of liquid fuel fired in the boiler
Z = cubic feet/year of gaseous fuel fired in the boiler
(9 VAC 5-170-160)

#34 Alternative startup fuels for initial fire.
(9 VAC 5-170-160)

#35 Disposal of non-hazardous wastes.
(9 VAC 5-170-160)

#36 Throughput of recycle ash to each unloading system not to exceed 21,024 tpy or 84,096 tpy in total.
(9 VAC 5-170-160)

Facility Requirements from NSPS Da:

60.44a(a)(2) NOx reduction requirement:

Gaseous fuels	25%
Liquid fuels	30%
Solid fuels	65%

60.46a(b) Compliance with the NOx standard constitutes compliance with the percent reduction requirement.

60.46(c) PM standard and NOx standard apply at all times except during periods of startup, shutdown, or malfunction. The SO_2 standards apply at all times except during periods of startup or shutdown.

60.46a(e) SO_2 emission limitations and percent reduction as well as NOx limitations based on average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate for both SO_2 and NOx and a new percent reduction for SO_2 are calculated to show compliance with the standards.

The SO_2 emission limitation is required in the NSR permit to be demonstrated as a 3 hour average. Since this time period is more stringent, it will be carried into the Title V permit. The NSPS citation will carry forward into the Title V permit condition.

60.46a(g) Compliance determined by calculating the arithmetic average of all hourly emission rates for SO_2 and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction (NOx only). Compliance with the percentage reduction requirement for SO_2 is determined based on the average inlet and average outlet SO_2 emission rates for the 30 successive boiler operating days.

The SO_2 emission limitation is required in the NSR permit to be demonstrated as a 3 hour average. Since this time period is more stringent, it will be carried into the Title V permit, and the 30 day rolling average will be left out. However, the citation for the 30 day rolling average from NSPS will be carried into the Title V permit Condition.

Also, in the limitations section, a condition has been added stating that, except as specified elsewhere, the facility will be operated in accordance with 40 CFR 60 Subpart Da.

Monitoring

Facility requirements from the February 12, 2001 permit:

#40 Opacity monitor for each stack.
(9 VAC 5-50-40)

#41 NOx monitor and O2 or CO2 monitor for each boiler.
(9 VAC 5-50-40)

#42 Inlet and outlet SO_2 and O_2 or CO_2 monitoring for each boiler SO_2 control device.
(9 VAC 5-50-40)

Facility requirements from NSPS Da:

60.46a(h) If owner does not get minimum quantity of emissions data, compliance of affected facility for the day on which the 30 day period ends may be determined by DEQ by following the applicable procedures in section 7 of Method 19.

Since the following equations from Section 7 are standard statistical formulas, they will not be carried into the Title V permit. They are shown here, however, for the sake of clarity.

Facility requirements from Section 7 of Method 19:

7.1.1 Compliance with the emission rate standard may be determined by using the lower confidence limit of the emission rate (Eao*) as follows:

$Eao^*=Eao-t_{.95}So$ where: So= standard deviation of the hourly average emission rates for each performance test period

$t_{.95}$= values show in Table 19-2 for the indicated number of data points n

7.1.2 Compliance with the overall emission reduction (%Ro) may be determined by using the lower confidence limit of the emission rate (Eao*)and the upper confidence limit of the inlet pollutant rate (Eai*) in calculating the control device removal efficiency (%Rs) as follows:

$\%Rs=100[1.0-Eao^*/Eai^*]$ $Eai^*=Eai+t_{.95}Si$ Where Si= standard deviation of the hourly average inlet pollutant rates for each performance test period

7.2 Compute the standard deviation (Se) of the hourly average pollutant rates using the following equation:

$$Se=((1/H)-(1/Hr))^2((\sum_{j=1}^{H}(Ehj-Ea)^2)/(H-1))^2$$

Table 19-2: Values for $t_{.95}$

n[1]	$t_{.95}$	n[1]	$t_{.95}$	n[1]	$t_{.95}$
2	6.31	8	1.89	22-26	1/71
3	2.42	9	1.86	27-31	1.70
4	2.35	10	1.83	32-51	1.68
5	2.13	11	1.81	59-91	1.67
6	2.02	12-16	1.77	92-151	1.66
7	1.94	17-21	1.73	152 or more	1.65

[1]The values of this table are corrected for n-1 degrees of freedom. Use n equal to the number (H) of hourly average data points.

More Facility requirements from Subpart Da:

60.47a(e) NOx, SO_2, opacity, and diluent monitors required by this regulation shall be operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, or malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

60.47a(f) Shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days.

60.47a(g) 1 hour averages required by 60.13(h) are expressed in lbs/mmbtu heat input and used to calculate the average emission rates. The 1 hour averages are calculated using the data points required under 60.13(b). At least 2 data points must be used to calculate the 1 hour averages.

60.47a(h) To supplement continuous monitoring system data to meet minimum data requirements, the permittee shall use the reference methods and procedures specified here.

(1) Method 6 for SO_2 at the same location as the monitor. Samples to be taken at 60 minute intervals. Time and volume for each sample shall be at least 20 minutes and .71 dscf. Each sample represents a 1 hour average.

(2) Method 7 for NOx at the same location as the monitor. Samples to be take at 30 minute intervals. Average of 2 consecutive samples represents a 1 hour average.

(3) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B shall be used to determine the O_2 or CO_2 concentration at the same location as the monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1 hour average.

(4) Procedures in Method 19 shall be used to compute each 1 hour average concentration in lbs/mmbtu heat input.

Facility Requirements from 40 CFR 60.13 Monitoring Requirements:

60.13(a) If the continuous monitoring system is used to demonstrate compliance, Appendix F is applicable. Continuous monitoring systems must use Appendix B for performance specifications.

60.13(d)(1) ...shall check zero (or low level value) and span (50% to 100% of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum be adjusted whenever the 24 hour zero drift or 24 hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. They system must allow the amount of excess zero and span drift measured at the 24 hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

60.13(d)(2) Minimum procedures for continuous monitoring systems measuring opacity of emissions

shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

60.13(e) Except for system breakdowns, repairs, calibrations checks, and zero and span adjustments, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) Systems for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10 second period and one cycle of data recording for each successive 6 minute period.

This shall be included in the Title V permit as the definition of an opacity data point.

(2) All continuous monitoring systems for gaseous emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15 minute period.

This shall be included in the Title V permit as the definition of a gaseous CEM data point.

60.13(h) For opacity, shall reduce all data to 6 minute averages and for continuous monitoring systems other than opacity to 1 hour averages. Six minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6 minute period. For continuous monitoring systems other than opacity, 1 hour averages shall be computed from four or more data points equally spaced over each 1 hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data maybe recorded in reduced or nonreduced form. All excess emissions shall be converted into units of the standard using the applicable conversion procedures. After conversion into units of the standard, the data may be rounded to the number of significant digits as used in the applicable subparts to specify the emission limit.

This paragraph specifies 4 data points. However, the NSPS Da specified 2 data points (60.47a(g)). Since the NSPS Da takes precedent over the General Provisions, the Title V permit will reflect the need for 2 data points. This paragraph in the regulations refers to 60.7(f)(1) and (2). These paragraphs do not apply to this facility since this facility must keep automated records that exclude from calculations the startup, shutdown, and malfunction periods to determine compliance. The 60.7 requirements for this facility are listed in Record Keeping.

<u>More Requirements from Subpart Da:</u>

60.47a(i)(3) Span value for opacity is 60% to 80%. For NOx, the span value is 500 ppm for gaseous fuels, 500 ppm for liquid fuels, 1000 ppm for solid fuels, and for a combination is determined by the following formula:

$500(x+y) + 1000\,z$ where x=fraction of heat input from gaseous fuels
y=fraction of heat input from liquid fuels
z=fraction of heat input from solid fuels

This condition will be changed in the TV permit to reflect the fact that the facility also uses 500 ppm as the span for the NO_x monitors when burning solid fuels. The lower span value is necessary since this facility was built well after the promulgation of Subpart Da, and the PSD/BACT NO_x standard is much lower than that required in the NSPS. Typical NO_x readings are less than 200 ppm, and 500 ppm has not been exceeded, even during times when control systems have been taken out of service. Since the span value is lower, allowable calibration drifts are also lower so that calibrations also require more precise data than at the higher span values. Therefore, the lower span limitation is more stringent than that required in the NSPS Da and will be carried into the TV permit.

60.47a(i)(4) Span values rounded to the nearest 500 ppm.

60.47a(i)(5) For SO_2 monitoring systems, inlet span is 125% of maximum estimated hourly potential emissions, and outlet is 50% of maximum estimated hourly potential emissions of fuel fired.

60.47a(j)(1) Method 6 may have as a substitute Method 6A or 6B wherever Methods 6 and 3 or 3B data are used, or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages.

60.47a(j)(2) Method 7 may have as a substitute Method 7A, 7C, 7D, or 7E. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

60.47a(j)(3) Method 3 may have as a substitute Method 3A or 3B. If Method 3A or 3B is used, the sampling time is 1 hour.

60.47a(j)(4) For Method 3B, 3A may be used.

Record Keeping

<u>Facility requirements from the February 12, 2001, permit:</u>

#30 Maintain records of coal shipments showing sulfur and ash contents. Collect composite sample of each solid fuel other than coal monthly and keep on site the analyses of each sample.
(9 VAC 5-170-160)

#38 Shall maintain following records:
*monthly throughput of each type of fuel in each boiler
*fuel supplier certifications for coal; sample analyses for other solid fuels
*daily log of materials used for startups other than manufacturer's recommended materials and combustion of approved non-hazardous wastes
*throughput of recycle ash from each system
Records available for 3 years and must be on site.
(9 VAC 5-170-160)

The availability in this condition will be increased to 5 years to be consistent with the requirements of the TV program.

Requirements from 60.7 ANotification and record keeping:≅

60.7(b) Shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a CEM is inoperative.

60.7(f) Shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

Testing

Facility requirements from the February 12, 2001 permit:

#26 Testing for PM, SO2, SO2 removal, NOx, sulfuric acid mist, beryllium, and CO from each boiler as alternative fuel become available. Also requires a VEE for each fuel on boiler stacks. (9 VAC 5-80-10 H)

Facility Requirements from NSPS Da:

60.46a(f) Initial performance testing of SO_2 emission limitations, % reduction, and NOx emission limitations, is based on the average emission rates for SO_2, NOx, and % reduction for SO_2 for the first 30 successive boiler operating days. The initial performance test is the only test in which at least 30 days prior notice is required unless otherwise specified by the Administrator.

The initial testing was performed several years ago. However, since the current permit requires retesting for any new fuel, this testing requirement will be included in the Title V permit to ensure that the methods of testing for SO_2 emissions, reduction efficiency, and NOx emissions are clear.

60.48a(b) To determine particulate matter compliance:

(1) The dry basis F factor procedures in Method 19 shall be used to compute the emission rate of particulate matter.

(2) For particulate matter concentration, Method 5 shall be used at affected facilities without wet FGD systems

(I) Sampling time and sample volume for each run shall be at least 120 minutes and 60 dscf. The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of not greater 320∀25EF.

(ii) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O_2 concentration. The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 concentrations at each traverse point.

(3) Method 9 shall be used for opacity

60.48a(c) The permittee shall determine compliance with the SO_2 standards as follows:

(1) % of potential SO_2 emissions (%Ps) shall be computed as:
%Ps=[(100-%Rf)(100-%Rg)]/100 where %Ps=% potential SO_2
%Rf=% reduction from fuel pretreatment
%Rg=% reduction by SO_2 controls

%Rf is zero in this case since no fuel pretreatment is done at this facility.

(3) Use Method 19 to determine %Rg.
(4) Use Method 19 to determine emission rates.
(5) The continuous monitoring systems shall be used to determine the concentrations of SO_2, O_2, or CO_2.

Periodic Monitoring Requirements

To ensure compliance with the beryllium and sulfuric acid emission limitations, the facility will be required to test these emission rates on one stack once every five year term. Once every five years is deemed to be an adequate frequency over which to require such testing because previous testing has shown emission rates an order of magnitude less than the permitted limit. The testing will be required within the first 18 months of the permit term, and the boilers must be operated at a minimum of 80% of maximum rated capacity. If the stack fails the test for any pollutant, then the facility must test all other stacks for that pollutant within 6 months.

The facility will also have similar testing requirements for VOC, CO, and PM_{10} since there are no monitors on the boiler that directly measure the emission rates of these pollutants.

Reporting

Facility requirements from the February 12, 2001 permit:

#37 Written notification of:
*installation of natural gas and fuel oil burners w/l 30 days;
*startup of burners;
*dates upon which TDF, PPF, wood chips, fly ash briquettes, and e-fuel become available to be burned. *(TDF and E-Fuel notifications have already been turned in.)*
(9 VAC 5-170-160 & 9 VAC 5-50-50)

Facility Requirements from NSPS Da:

60.49a(b) SO_2 and NOx information reported to DEQ for each 24 hour period:

(1) Calendar date.
(2) Average SO_2 and NOx emission rates for each 30 successive boiler operating days, ending with the last 30 day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective action taken

The SO_2 emission rates must be reported for each 3 hour interval as required by the NSR permit for NAAQS compliance purposes. This will be made clear in the Title V permit.

(3) % reduction of the PCC of SO_2 for each 30 successive boiler operating days, ending with the last 30 day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
(4) Identification of boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and a description of corrective actions taken.
(5) Identification of times when emissions data have been excluded from the calculations of average emission rates because of startup, shutdown, malfunction (NOx only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, or malfunction.
(6) Identification of AF≅ factor used for calculations, method of determination, and type of fuel combusted.
(7) Identification of times when hourly averages have been obtained based on manual sampling methods.
(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.
(9) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with performance Specifications 2 or 3.

60.49a(c) If the minimum quantity of emission data is not obtained for any 30 successive boiler operating days, the following information is reported to the DEQ for that 30 day period:
(1) # of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable
(2) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable
(3) The lower confidence limit for the mean outlet emission rate (E_o*) and the upper confidence limit for the mean inlet emission rate (E_i*) as applicable.
(4) The applicable potential combustion concentration.
(5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o*) and the allowable emission rate (Estd) as applicable.

60.49a(f) For any periods for which opacity, SO_2, or NOx emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

40.49a(g) The permittee shall submit a signed statement indicating:
(1) The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.
(2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
(3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
(4) Compliance with the standards has or has not been achieved during the reporting period.

60.49a(h) Periods of excess emissions are defined as all 6 minute periods during which the average opacity exceeds the applicable opacity standards. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the DEQ each calendar quarter.

60.49a(i) The permittee shall submit written reports required under this section semiannually for each 6 month period. All semiannual reports shall be postmarked by the 30th day following the end of each six month period.

The facility must report under state policy quarterly for CEM reports. Therefore, to make all reporting requirements consistent and not require the facility to submit both semiannual and quarterly reports that very easily could contain the same data, all references to "semiannual" reports shall be changed to "quarterly" reports in the TV permit. Since quarterly reporting allows for more opportunity to determine the facility's compliance and to evaluate operations, it is a more stringent requirement than that in the NSPS Subpart Da as listed above.

60.49a(j) The permittee may submit electronic quarterly reports for SO_2 and NOx and opacity in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with DEQ. The electronic reports shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

As stated above, semiannual reporting requirements have had quarterly requirements substituted.

<u>Facility Requirements from 60.7:</u>

60.7(c) Shall submit excess emissions and monitoring performance report and/or summary report form to DEQ quarterly *(semiannually was changed)*. Shall be postmarked by the 30th day following the end of each six month period. Shall include:

(1) Magnitude of excess emissions, conversion factors used, date and time of commencement and completion of each time period of excess emissions. Also, the process operating time during the period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility, the nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) Date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

Periodic Monitoring Requirements-The facility has numerous emission requirements and control requirements. The following chart describes each requirement and the associated periodic monitoring:

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
Boilers 1A, 1B, 2A, 2B, 3A, 3B, 4A, & 4B				
VOC limitations: .003 lbs/mmbtu/stack 2.3 lbs/hr/stack 9.9 tpy/stack 39.4 tpy/facility CO limitations: .2 lbs/mmbtu/stack 150 lbs/hr/stack 657.0 tpy/stack 2628.0 tpy/facility	*Boiler rating/capacity; *annual fuel throughput *good operating practices *stack test data once every 5 years on one stack.	*training of operators; *requirement for procedures to be written down	*boiler rating/capacity. *emission factors *emission calculations *training certifications *test data	Quarterly, reporting changes in parameters for calculations See Emission Limitation Demonstration. Stack test report.
Formaldehyde limitations: 1.95×10^{-1} lbs/hr/stack Mercury limitations: 5.12×10^{-3} lbs/hr/stack	*Boiler rating/capacity; *annual fuel throughput *good operating practices	*training of operators; *requirement for procedures to be written down	*boiler rating/capacity. *emission factors *emission calculations *training certifications	Quarterly, reporting changes in parameters for calculations See Emission Limitation Demonstration.
Sulfuric acid mist 2.3 lbs/hr/stack Beryllium limitations: 2.5×10^{-4} lbs/hr/stack	*boiler rating/capacity *S content of fuel *% SO_2 removal *Testing for emissions rates	*S content of fuel *% SO_2 removal (none for Be)	*boiler rating/capacity *emission factors *emission calculations *S content of fuel *% SO_2 reduction *test results	Quarterly, reporting changes in parameters for calculations, increases in S content of fuel, violation of % SO_2 removal. See Emission Limitation Demonstration. See below for % SO_2 removal monitoring. Testing once every 5 years & test result reporting
TSP & PM10: 99.9% reduction via baghouse and spray dryer	Pressure drop across baghouse	Check pressure drop once per shift to ensure it is within 10 inches water column	Record pressure drop once per shift	Record instances where pressure drop exceeds 10 inches water column, and associated actions taken as stated in the permit.

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
TSP & PM10 .02 lbs/mmbtu TSP .018 lbs/mmbtu PM10	pressure drop across baghouse testing once every five years	Check pressure drop once per shift to ensure it is within 10 inches water column	Record pressure drop once per shift Test results	Record instances where pressure drop exceeds 10 inches water column, and associated actions taken as required by the TV permit to determine if deviation is violation. Test report.
TSP 15.0 lbs/hr/stack 65.7 tpy/stack 262.8 tpy/facility PM10 13.5 lbs/hr/stack 59.1 tpy/stack 236.5 tpy/facility	Capacity of boilers; annual fuel throughput	As above for TSP & PM10 reduction standard and emission rates.	See Emissions Limitation Demonstration	See Emissions Limitation Demonstration
SO_2 .13 lbs/mmbtu	CEM measurement of effluent gases and Method 19 to determine conversion from ppm to lbs/mmbtu;	SO_2 outlet monitor.	Continuous recorder;	3 hour rolling average of SO_2 emissions in lbs/mmbtu on a quarterly basis.
SO_2 97.5 lbs/hr/stack 427.1 tpy/stack 1,708.2 tpy/facility	Capacity of boilers; annual fuel throughput	As above for SO_2 lbs/mmbtu standard	See Emissions Limitation Demonstration	See Emissions Limitation Demonstration
SO_2 90% reduction of pollutant in flue gas	Direct CEM measurement of reduction	SO_2 inlet and outlet monitors	Continuous records	30 day rolling average of SO_2 emissions as required by Subpart Da and 3 hour rolling average for NAAQS compliance.
NOx 0.3 lbs/mmbtu (for all fuels except gaseous fuels)	CEM	NOx outlet monitor	Continuous records	30 day rolling average of NOx emissions as required by Subpart Da
NOx 0.2 lbs/mmbtu (for gaseous fuels)	CEM	NOx outlet monitor	Continuous records	30 day rolling average of NOx emissions as required by Subpart Da
NOx 0.3X+0.2Y for combination of fuels	CEM	NOx outlet monitor and heat input from each fuel type	Continuous records	30 day rolling average of NOx emissions as required by Subpart Da
NOx Reduction Requirements: 25% for gaseous fuels 30% for liquid fuels 65% for solid fuels	CEM on outlet	Determine compliance with NOx emissions limitations 60.46a(b). Compliance with emission limitations indicates compliance with reduction requirements.	Continuous records	30 day rolling average of NOx emissions as required by Subpart Da

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
Opacity 10%, one 6 minute exception per hour of 20%	COMS	Direct measurement and calculation of 6 minute averages using COMS	Continuous records	Periods of time out of compliance with the standard. Semi annual reporting as required by Da.
Approved Fuels: Natural Gas, Distillate Oil, Residual Oil, Coal, TDF, Wood Chips, PPF, Fly Ash Briquettes, E-Fuel	Fuel used	Record keeping of fuels used in each boiler	Record keeping of fuels used in each boiler, and certificates from supplies showing sulfur and ash content.	Reporting of episodes when fuels other than allowed fuels are burned. Report quarterly.
TDF/Coal to be blended not to exceed 20% heat input from TDF.	Types and quantities of fuel burned in each boiler	Recording of types and quantities of fuels burned in each boiler daily	On a daily basis, when burning TDF, record heat input from TDF and from Coal. Calculate TDF ratio.	Report episodes quarterly when TDF heat input is greater than 20%.
Annual throughputs not to exceed: <u>Gaseous Fuels:</u> 675 mmcft/yr/boiler 5392 mmcft/yr/facility <u>Liquid Fuels:</u> 4836 kgals/yr/boiler 38688 kgals/yr/boiler/facility <u>Solid Fuels:</u> 124392 tpy/boiler 995136 tpy/facility	Fuel use.	Monitor quantities of each type of fuel used in each boiler and facility wide.	Record monthly the amount of fuel used in each boiler and the amount of fuel used at the facility. Calculate the annual usage monthly the sum of the previous 12 month period for boilers and the entire facility.	Report episodes when limits have been exceeded quarterly.
Annual throughputs to a boiler firing more than one type of fuel not to exceed: 27.08 mmbtu/hr*X + 140 kbtu/gal*Y + 1.02 kbtu/cft*Z < 3.285×10^{12} btu/yr/blr X=tpy of solid fuel fired in blr Y=gal/yr of liq fuel fired in blr Z=cft/yr of gaseous fuel fired in blr	Fuel use.	Monitor quantities of each type of fuel used in each boiler and facility wide.	Record monthly the amount of fuel used in each boiler. Calculate the annual usage monthly as the sum of the previous 12 month period for boilers and the entire facility.	Report episodes when limits have been exceeded quarterly.
Use of oily rags, used oil absorbents, and wood scraps generated at the site during startup	Other approved start up fuels used	Monitor amounts and types of other approved start up fuels used in each boiler.	Record for each start up the amount and type of each alternative startup fuel used for each boiler.	Report episodes when fuels other than those authorized are used to start up boilers.

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
Disposal of non hazardous wastes in boilers during normal operations: *Wastewater basin sludge *Spent demineralizer resins *Spent activated carbon from the water treatment filter *Boiler cleaning solutions	Wastes disposed of during normal operations	Monitor amounts and types of the listed wastes fed to each boiler monthly.	Record monthly the amounts and types of the listed wastes fed to each boiler.	Report episodes when wastes not listed were fed to boilers or when wastes not generated at the site were fed to the boilers.
Solid Fuel Storage Bunkers, 1-2A, 1-2B, 2-2A, 2-2B, 3-2A, 3-2B, 4-2A, & 4-2B				
TSP: 1.8 lbs/day 0.3 tpy PM10: 1.8 lbs/day 0.3 tpy 5% Opacity from baghouses 99.9% control by baghouses	Good operation and maintenance of control equipment (baghouses)	Periodic inspections of baghouses to determine necessary maintenance; Performance of necessary maintenance	Records of inspections and maintenance performed	Reporting of periods when visible emissions more than 5% and corrective actions taken.
	Visible Emissions	1/month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	
Dry Recycle Ash Unloading Systems, 1-5B, 2-5B, 3-5B, & 4-5B				
TSP: 0.3 lbs/hr 1.3 tpy PM10: 0.3 lbs/hr 1.3 tpy 10% Opacity from dry recycle ash unloading Fabric filter and partial enclosure with 98% control	Good operation and maintenance of control equipment (baghouses)	Periodic inspections of baghouses to determine necessary maintenance; Performance of necessary maintenance	Records of inspections and maintenance performed	Reporting of periods when visible emissions more than 5% and corrective actions taken.
	Visible Emissions	1/Month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	
Solid Fuel Handling Operations, FS3				

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
7% Opacity Use of wet suppression	Visible Emissions	1/month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	Reporting of periods when visible emissions more than 5% and corrective actions taken.
Fly Ash Silos, 1-4A & 3-4A				
TSP & PM10: 99.9% control by baghouse	Good operation and maintenance of control equipment (baghouses)	Periodic inspections of baghouses to determine necessary maintenance; Performance of necessary maintenance	Records of inspections and maintenance performed	Reporting of periods when visible emissions more than 5% and corrective actions taken.
5% Opacity from baghouse	Visible Emissions	1/month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	
Bottom Ash Silos, 1-3A & 3-3A				
TSP & PM10: 99.9% control by baghouse	Good operation and maintenance of control equipment (baghouses)	Periodic inspections of baghouses to determine necessary maintenance; Performance of necessary maintenance	Records of inspections and maintenance performed	Reporting of periods when visible emissions more than 5% and corrective actions taken.
5% Opacity from baghouse	Visible Emissions	1/month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	
Recycle Ash Silos, 1-5, 2-5, 3-5, & 4-5				
TSP & PM10: 99.9% control by baghouse	Good operation and maintenance of control equipment (baghouses)	Periodic inspections of baghouses to determine necessary maintenance; Performance of necessary maintenance	Records of inspections and maintenance performed	Reporting of periods when visible emissions more than 5% and corrective actions taken.
5% Opacity from baghouse	Visible Emissions	1/month, Method 22; If any visible emissions, then must conduct Method 9.	Records of visible emissions evaluations using Methods 22 and 9.	

Periodic Monitoring Requirements for Spruance Genco, LLC				
Limitation	**Parameter**	**Monitoring**	**Record Keeping**	**Reporting**
Throughput not to exceed 21,024 tpy to each unloading system and 84,096 tpy to the entire facility.	Throughput of ash to unloading systems	Monitor amounts of ash unloaded by each system monthly.	Record monthly the amount of ash unloaded by each system. Calculate the total monthly ash unloaded at the entire facility. Calculate annual totals monthly by summing the previous 12 month period.	Report periods when the throughput limitations are exceeded.
Wet Unloaders, 1-3G, 1-4B, 3-3G, & 3-4B				
Use of wet suppression	Use of wet suppression whenever wet unloaders are operating	Always use wet suppression when unloading	Records of unloading when wet suppression not used	Reporting of all periods when wet suppression not used.
Monitoring Requirements				
Obtain emissions data for at least 18 hours in at least 22 out of 30 successive boiler operating days	Up time of monitors	Ensure uptime of monitors meets the minimum requirement	Periods of time when monitor not functional but boilers were operating	Report all periods of down time for monitors quarterly as required by Subpart Da.

Emission Limitation Demonstration: The purpose of this demonstration is to show that if the facility meets the lbs/mmbtu standards and does not exceed the maximum rated capacities, the facility will remain in compliance with their lbs/hr, tons/year, and tons/year/facility emissions limits. In the case of sulfuric acid mist, if the facility meets the SO_2 reduction standard, does not buy high sulfur coal, and does not exceed the maximum rated capacities, the facility will remain in compliance with the lbs/hr/stack sulfuric acid mist limitation.

Given: 8 boilers, each rated at 375 mmbtu/hr
2 boilers exhaust to each stack
Coal is worst case fuel & has a heating value of 13200 btu/lb
Coal throughput limits of 124392 tpy/boiler and 995136 tpy/facility
Maximum concentration of Hg in coal is 0.02 ppm.
Facility buys less than 1% S coal by weight

Pollutants Monitored with CEMS			Pollutants Monitored by Surrogate Parameters		
lbs/mmbtu limit or factor	**lbs/hr/stack limit**	**tpy limit**	**lbs/mmbtu limit or factor**	**lbs/hr limit**	**tpy limit**
SO_2 = 0.13 lbs/mmbtu	97.5 lbs/hr/stack	427.1 tpy/stack 1708.2 tpy/facility	TSP=0.02 lbs/mmbtu (tested value of 0.0153 lbs/mmbtu	15.0 lbs/hr/stack	65.7 tpy/stack 262.8 tpy/facility
NOx=0.3 lbs/mmbtu	225.0 lbs/hr/stack	985.5 tpy/stack 3942.0 tpy/facility	PM10=0.018 lbs/mmbtu (tested value of 0.0153 lbs/mmbtu)	13.5 lbs/hr/stack	59.1 tpy/stack 236.5 tpy/facility
SO_2 reduction = 90%			CO=0.20 lbs/mmbtu (tested value of 0.109 lbs/mmbtu)	150.0 lbs/hr/stack	657.0 tpy/stack 2628 tpy/facility
			VOC=0.003 lbs/mmbtu (tested at 0.0011 lbs/mmbtu)	2.3 lbs/hr/stack	9.9 tpy/stack 39.4 tpy/facility
			Mercury = 16 lbs/10^{12} btu (AP-42)	0.00512 lbs/hr/stack	
			Formaldehyde= 140lbs/10^{12} btu (AP-42)	0.195 lbs/hr/stack	
			Sulfuric acid mist=0.43S lbs/ton (TRI)	2.3 lbs/hr/stack	

*AP-42 numbers for Mercury are worst case numbers from Table 1.1-17 (9/98).
*AP-42 numbers for Formaldehyde are worst case numbers from Table 1.1-17 (9/98).
*Sulfuric acid emission factor of 0.43 S where S is the percent by weight sulfur content of the coal is taken from TRI guidance.

Listed below are the formulas which apply to the following pollutants:

lbs/hr/stack = (lbs/mmbtu)(rating of boiler)(2 blrs/stack)
tpy/stack = (lbs/hr/stack)(8760 hrs/year)(1 ton/2000 lbs)
tpy/facility =(tpy/stack)(4 stacks/facility)

SO_2: 0.13 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) = 97.5 lbs/hr/stack
97.5 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) = 427.1 tpy/stack
427.0 tpy/stack(4 stacks) = 1708.2 tpy/facility

NOx:	0.3 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) =	225.0 lbs/hr/stack
	225.0 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) =	985.5 tpy/stack
	985.5 tpy/stack(4 stacks) =	3942.0 tpy/facility
TSP:	0.02 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) =	15.0 lbs/hr/stack
	15.0 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) =	65.7 tpy/stack
	65.7 tpy/stack(4 stacks) =	262.8 tpy/facility
PM10:	0.018 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) =	13.5 lbs/hr/stack
	13.5 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) =	59.1 tpy/stack
	59.1 tpy/stack(4 stacks) =	236.5 tpy/facility
CO:	0.2 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) =	150.0 lbs/hr/stack
	150.0 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) =	657.0 tpy/stack
	657.0 tpy/stack(4 stacks) =	2628.0 tpy/facility
VOC:	0.003 lbs/mmbtu(375 mmbtu/hr)(2 blrs/stack) =	2.3 lbs/hr/stack
	2.3 lbs/hr/stack(8760 hrs/yr)(1 ton/2000 lbs) =	9.9 tpy/stack
	9.9 tpy/stack(4 stacks) =	39.4 tpy/facility

Formaldehyde:

140 lbs/10^{12} btu * 375000000 btu/hr (2 blrs/stack) = .105 lbs/hr/stack

The emissions from Mercury are calculated via mass balance, assuming all that goes into the boiler will be emitted. The formula is:

Mercury: .02 ppm/1000000(1 lb/13200 btu)(375000000btu/hr)(2 blrs/stack) = 0.0011 lbs/hr/stack

Sulfuric Acid Mist:

This formula assumes that the scrubbers will achieve approximately the same reduction in sulfuric acid mist as will be achieved for SO_2 . Also, 1% S is used for the sulfur content of coal. The facility typically buys coal in the range of 0.7 to 0.9% S so that 1% S is a conservative estimate. Both the PSD permit and the Title V permit require record keeping of the S content of the fuel.

0.43 lbs/ton*1%S*375000000 btu/hr*2 blrs*lb coal/13200 btu*1ton/2000 lbs*(1-.90)=1.22 lbs/hr/stack

Streamlined, Obsolete, and Subsumed Requirements

Facility requirements from the September 27, 2000, permit:

Conditions 1 & 2 of Part I & 8 of Part II: These conditions list the location of the facility and the permit application dates that generated the permit and amendments. These conditions do not need to be carried over into the Title V permit since the Title V permit application is the basis for the Title V permit and since the location of the facility has been documented in numerous inspection reports.

Condition 3 of Part I: The equipment listing in the Title V permit will be more descriptive than the

equipment listing of the NSR permit.

Condition 18 of Part I: This condition was a transitional condition to allow boilers that had not yet been retrofitted with the newer technology to keep the less stringent solid fuel NOx emission limitation of 0.35 lbs/mmbtu during SNCR outages. However, all boilers have been retrofitted with the FGR and Methane Reburn so that this limitation is no longer applicable to any boiler at the facility. It is therefore obsolete.

Condition 24 of Part I: These tests have been completed and the facility achieved compliance with all standards.

Condition 25 of Part I: These tests have been completed, and the facility achieved compliance with all standards

Condition 27 of Part I: Testing for benzo(a)pyrene, lead, cobalt, chromium, and mercury required for TDF burning have been completed, and the facility achieved compliance with all standards.

Condition 37 c & d of Part I: These notifications have been received by DEQ.

Condition 39 of Part I: The facility has submitted their standby emission reduction plan.

Conditions 40, 41, & 42 of Part I: The requirement to have monitors will be carried into the Title V permit. However, these monitors have been performance certified in accordance with the applicable Performance Specification. The Title V permit shall have the requirement of 60.13(a) restated, that the facility must audit their monitors in accordance with Appendix F. Therefore, the latter halves of these conditions will not be carried over into the Title V permit as they will be redundant.

Conditions 1 & 2 of Part II: Progress reports of construction are no longer necessary since the facility has operated for many years. Stack testing initially required by permit has been completed and submitted.

The following general conditions from Part II of the NSR permit will be contained in the general condition portion of the Title V permit: 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, and 15.

Facility Requirements from NSPS Da: This facility is subject to NSPS Da. However, the SO_2 standard required by the PSD permit is much more stringent than that required in this federal regulation. The more stringent standard is a result of top down BACT for the emissions limitation. The more stringent time frequency, a 3 hour rolling average, is to protect the NAAQS. Therefore, many Da requirements which note a 30 day rolling average for SO_2 are streamlined by the more stringent NSR/PSD requirement.

Emergency Condition: means a period of time when:

(a) the electrical generation output of an affected facility with a malfunctioning flue gas desulfurization system cannot be reduced or electrical output must be increased because:
  (1) All available system capacity is being operated; and
  (2) All available purchase power is being obtained; or

(b) The electric generation demand is being shifted as quickly as possible to

one or more electrical generating units held in reserve by the principal company or neighboring company; or

(c) An affected facility with a malfunctioning flue gas desulfurization system becomes the only available unit to maintain a part or all of the system emergency reserves and the unit is operated in spinning reserve at the lowest practical electric generation load consistent with not causing significant physical damage to the unit. If the unit is operated at a higher load to meet load demand, an emergency condition would not exist unless the conditions under (a) of this definition apply.

(40 CFR 60.41a)

The definition of emergency condition applies to units that are necessary to keep the power grid functioning. Since this facility is a cogeneration facility and not a utility, the special allowances for emergency conditions, as described in this definition, do not apply to this facility. Conditions in the TV permit for this facility do not have any references to emergency conditions listed.

60.42a(a) Standard for particulate matter:
(1) 0.03 lbs/mmbtu for solid, liquid, or gaseous fuel;
(2) 1% of PCC for solid fuel (0.01*7 lbs/mmbtu=0.7 lbs/mmbtu)
(3) 30% of PCC for liquid fuel (0.3*.17 lbs/mmbtu=0.051 lbs/mmbtu)

The facility fires solid, liquid, and gaseous fuels; however, the permit requirement is 0.02 lbs TSP/mmbtu and 0.018 lbs PM10/mmbtu. These requirements were BACT at the time of permit issuance. These limits are more stringent than the NSPS limits. Only the BACT limits will be carried into the Title V permit. Also, the permit requires 99.9% control efficiency by the baghouses, which is in excess of 99%, as required in the above paragraphs. The 99.9% requirement will be carried into the Title V permit. These NSPS citations will be reflected in the Title V permit condition.

60.42a(b) VEE of 20% with one excursion of 30%.

The facility is required to meet 10% opacity from the boiler stacks, with one exception of 20% per hour. This standard was BACT at the time of permit issuance. Since this standard is more stringent, only the BACT limits will be carried into the Title V permit. However, this NSPS citation will be reflected in the Title V permit condition.

60.43a(a)(1) 1.2 lbs SO_2/mmbtu and 90% reduction for solid fuel
60.43a(b)(1) 0.8 lbs SO_2/mmbtu and 70% reduction for liquid fuel
60.43a(g) 30 day rolling average basis

The facility is required to meet 0.13 lbs SO_2/mmbtu on a three hour average, which is much more stringent than the above requirements. The limitation, 0.13 lbs/mmbtu, is derived from BACT. The three hour average was required to protect the NAAQS. Since the BACT standard is more stringent than the NSPS requirement, the Title V permit will only reflect the BACT standard and the compliance period necessary for NAAQS compliance. However, these citations will be reflected in the Title V permit condition.

60.43a(h)(2) Standard for combusting different fuels simultaneously, <0.6 lbs SO_2/mmbtu:
Es=(340X+520Y)/100 and %Ps=(10X+30Y)/100 where
Es=SO_2 limit in ng/J
%Ps=% of potential SO_2 allowed.
X=% eat input from liquid or gaseous fuels
Y=% heat input from solid fuels

The most conservative number these formulas could produce is calculated assuming that the heat input from solid fuels is 0: Es=340 ng/J (.79 lbs/mmbtu) and %Ps=10%. The permit requires 0.13 lbs SO_2 /mmbtu, which is more stringent than the most conservative number this formula could create. Therefore, the 0.13 lbs/mmbtu number will be carried over into the permit. The permit also requires 90% control of SO_2 emissions at all times so that the formula for control efficiency is also less stringent than the permit. The permit limit for control efficiency will be carried over into the permit, and the citations for NSPS will be reflected in the permit.

60.44a(a)(1) Standard for NOx, based on a 30 day rolling average:
Gaseous fuels: 0.2 lbs/mmbtu
Liquid fuels: 0.3 lbs/mmbtu
Solid fuels 0.5 lbs/mmbtu

The permit requires that the boilers meet 0.3 lbs NOx/mmbtu when burning solid or liquid fuels, and 0.2 lbs/mmbtu when burning gaseous fuels. Therefore, the permit is as stringent or more stringent than the NSPS requirement. The permit limits will be carried over into the Title V permit, and the permit condition will reflect the NSPS citation.

60.44a(c) When combusting two or more fuels at the same time, the NOx limit becomes:
En=[86w+130x+210y+260z+340v]/100 where
En=NOx standard in ng/J
w=percent heat input from fuels with limit of 86 ng/J (0.2 lbs/mmbtu)
x=percent heat input from fuels with limit of 130 ng/j (0.3 lbs/mmbtu)
y=percent heat input from fuels with limit of 260 ng/j (0.6 lbs/mmbtu)
z=percent heat input from fuels with limit of 340 ng/j (0.8 lbs/mmbtu)

The permit limits all fuels to 0.3 lbs/mmbtu with the exception of gaseous fuels (natural gas), which is limited to 0.2 lbs/mmbtu, the NSPS standard. Therefore, this equation becomes the following:

En=0.2w+0.3x where
En=NOx standard in lbs/mmbtu
w=percent heat input from natural gas
x=percent heat input from all other fuels

This equation is also stated in Condition #17 of the 09/27/00 permit. Since #17 already covers this requirement, #17 will be transferred to the Title V permit. The Title V permit will also reflect this NSPS citation.

60.44a(d)(1) & (2) Standard for NOx for boilers built after July 9, 1997.

This standard does not apply since the facility was constructed and operating by 1997.

60.46a(a) Compliance with PM emission limitations constitute compliance with percent PM reduction requirements.

As stated above, the permit requires 99.9% control efficiency since the PM standard was applied via top down BACT. Therefore, regardless of this citation, the facility will have periodic monitoring for the 99.9% control efficiency.

40.46a(d) During emergency conditions in the principal company, an affected facility with a

malfunctioning flue gas desulfurization system may be operated if SO_2 emissions are minimized by:

(1) Operating all operable desulfurization modules, and bringing back into operation any malfunctioning module as soon as repairs are completed,

(2) Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any SO_2 emission reduction or which would have suffered significant physical damage if they had remained in operation, and

(3) Having a spare flue gas desulfurization system module for any affected facility larger than 1,250 mmbtu/hr heat input.

This paragraph is defining requirements during emergency conditions for SO_2 emissions. However, emergency conditions do not apply to this facility since this facility is a cogen. Also, 46a(d)(3) would not be applicable to this facility in any event since each affected facility is 375 mmbtu/hr heat input.

60.47a(a) Shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere.

This requirement is covered by condition #40. The wording of condition #40 will be changed to more closely match the language of the NSPS requirement and reflect the NSPS citation.

60.47a(b)(1) Shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring SO_2 emissions at the inlet and outlet of the SO_2 control device.

This requirement is covered by condition #42. The wording of condition #42 will be changed to more closely match the language of the NSPS requirement and reflect the NSPS citation.

60.47a(c)(1) Shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system for NOx.

This requirement is covered by condition #41. The wording of condition #41 will be changed to more closely match the language of the NSPS requirement and reflect the NSPS citation.

60.47a(d) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content where SO_2 or NOx emissions are being monitored.

This requirement is covered in conditions #41 and #42. The wording of these conditions will be changed to more closely match the language of the NSPS requirement and to reflect the NSPS citations.

60.47a(i)(1)&(2) Methods and procedures for monitoring system performance evaluations required under 60.13(c) and calibration checks required under 60.13(d)

This is not applicable since the performance evaluations have been performed and since the wording from 60.13(d) for calibration checks has been carried into the TV permit.

60.49a(a) Submittal of initial performance test to DEQ.

This has already been submitted, and therefore, this condition is obsolete.

Facility Requirements from 40 CFR 60.13 AMonitoring Requirements:≅

60.13(b) All systems shall be installed and operational prior to conducting performance tests under 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer=s written requirements or recommendations for installation, operation, and calibration of the device.

This requirement is listed in this section to show the complete 60.13 requirements. However, it should be listed in the AObsolete" section since the monitoring systems were tested before performance tests were conducted. This requirement was met years ago.

60.13(c) Shall conduct evaluation of the COMS as specified in PS 1 under appendix B...

This requirement is also obsolete since the COMS have already been shown to meet the specifications in PS 1 of Appendix B.

60.13(f) Monitoring systems shall be installed to gather representative samples and data. Procedures for location of systems are contained in the performance specifications of Appendix B of part 60.

This is an obsolete condition since monitoring locations have been approved by the compliance section of DEQ. This requirement will not be carried over into the permit.

Facility Requirements from 40 CFR 60.7 ANotification and record keeping:

60.7(a)(1)	Notification of construction	*Obsolete since received many years ago.*
60.7(a)(3)	Notification of startup	*Obsolete, startup was in early 1990s.*
60.7(a)(5)	Notification of CEM tests	*Obsolete, performed in early 1990s.*
60.7(a)(6)	Notification of COM tests	*Obsolete, performed in early 1990s.*
60.7(a)(7)	Notification of COM for VEE	*Obsolete, performed in early 1990s.*

60.7(d) The summary report shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7.

60.7(d)(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and the CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report need not be submitted unless requested by DEQ.

60.7(d)(2) If the total duration of excess emissions for the reporting period is 1% or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5% or greater of the total operating time for the reporting period, the summary report form and the excess emission report shall both be submitted.

60.7(d) does not apply to this facility since Da lists the information required to be submitted semiannually,

which is in fact submitted quarterly due to agency policy. The Da requirements encompass the requirements in both (d)(1) and (d)(2), as well as many more semiannual requirements. Therefore, the 60.7(d) requirements are subsumed in the Da requirements.

GENERAL CONDITIONS-The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

STATE ONLY APPLICABLE REQUIREMENTS-No state-only applicable requirements were identified for this facility.

FUTURE APPLICABLE REQUIREMENTS-No future applicable requirements were identified for this facility.

INAPPLICABLE REQUIREMENTS- This facility is exempt from the 40 CFR 63 Subpart DDDDD.MACT because 40 CFR 63.7491 (C) exempts "A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit."

COMPLIANCE PLAN-None needed.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, record keeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
1-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
2-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
3-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
4-4	Turbine lube oil tank vent	9 VAC 5-80-720 B	VOC	
1-5	Cooling Tower	9 VAC 5-80-720 B	PM	
3-5	Cooling Tower	9 VAC 5-80-720 B	PM	
SK	Parts Cleaner	9 VAC 5-80-720 B	VOC	
5	Emergency diesel power fire pump	9 VAC 5-80-720 C		340 bhp
6	Diesel fuel storage tank	9 VAC 5-80-720 B	VOC	
7	Oil/water separator	9 VAC 5-80-720 B	VOC	
8	Oil/water separator	9 VAC 5-80-720 B	VOC	

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

NOx BUDGET TRADING PERMIT REQUIREMENTS

The following units are applicable to the NOx Budget Trading -

Table X – 1 Facility NO_X Budget Units				
Facility Unit ID	NATS Account ID	Unit Name and description	Maximum Heat Capacity (MMBtu/hr)	Maximum Generation Capacity (megawatts)
BLR01A	054081-BLR01A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR01B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR02A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR02B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR03A	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR03B	Combustion Engineering Stoker Boiler/1991	375	295
BLR01B	054081-BLR04A	Combustion Engineering Stoker Boiler/1991	375	295
BLR04B	054081-BLR04B	Combustion Engineering Stoker Boiler/1991	375	295

Standard Requirements

Monitoring requirements.

9 VAC 5-140-60 B.1 The owners and operators and, to the extent applicable, the NO_X authorized account representative of each NO_X Budget source and each NO_X Budget unit at the source shall comply with the monitoring requirements of Part I, Article 8 (9 VAC 5-140-700 et seq.).

9 VAC 5-140-60 B.2 The emissions measurements recorded and reported in accordance with (9 VAC 5-140-700 et seq.) (Subpart H of 40 CFR Part 97) shall be used to determine compliance by the unit with the NO_X Budget emissions limitation under paragraphs B.2.a through B.2.h.

Nitrogen oxides requirements.

9 VAC 5-140-60 C.1 The owners and operators of each NO_X Budget source and each NO_X Budget unit at the source shall hold NO_X allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO_X allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO_X emissions for the control period from the unit, as determined in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO_X Budget Trading Program, or a change in regulatory status, of a NO_X Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.

9 VAC 5-140-60 C.2 Each ton of nitrogen oxides emitted in excess of the NO_X Budget emissions limitation shall constitute a separate violation of 9 VAC 5 Chapter 140, Part I, the Clean Air Act, and applicable Virginia Air Pollution law.

9 VAC 5-140-60 C.3 A NO_X Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004, or the date on which the unit commences operation.

9 VAC 5-140-60 C.4 NO_X allowances shall be held in, deducted from, or transferred among NO_X Allowance Tracking System accounts in accordance with Part I, Article 5 (9 VAC 5-140-400 et seq.), Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), and Article 9 (9 VAC 5-140-800 et seq.).

9 VAC 5-140-60C.5 A NO_X allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO_X allowance was allocated.

9 VAC 5-140-60 C.6 A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO_X Budget Trading Program. No provision of the NO_X Budget Trading Program, the NO_X Budget permit application, the NO_X Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.

9 VAC 5-140-60 C.7 A NO_X allowance allocated by the permitting authority or the administrator under the NO_X Budget Trading Program does not constitute a property right.

9 VAC 5-140-60 C.8 Upon recordation by the administrator under Part I, Article 6 (9 VAC 5-140-500 et seq.), Article 7 (9 VAC 5-140-600 et seq.), or Article 9 (9 VAC 5-140-800 et seq.), every allocation, transfer, or deduction of a NO_X allowance to or from a NO_X Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO_X Budget permit of the NO_X Budget unit by operation of law without any further review.

Excess emissions requirements The owners and operators of a NO_X Budget unit that has excess emissions in any control period shall:

9 VAC 5-140-60.D.1 Surrender the NO_X allowances required for deduction under 9 VAC 5-140-540 D 1; and

9 VAC 5-140-60.D.2 Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.

Recordkeeping and Reporting Requirements.

9 VAC 5-140-60 E.1 The following requirements concerning recordkeeping and reporting shall apply: Unless otherwise provided, the owners and operators of the NO_X Budget source and each NO_X Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator.

9 VAC 5-140-60 E.1 The account certificate of representation for the NO_X authorized account representative for the source and each NO_X Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate of representation changing the NO_X authorized account representative.

9 VAC 5-140-60 E.1 All emissions monitoring information, in accordance with Part I, Article 8 (9 VAC 5-140-700 et seq.), provided that to the extent that Part I, Article 8 (9 VAC 5-140-700 et seq.) provides for a three-year period for recordkeeping, the three-year period shall apply.

9 VAC 5-140-60 E.1 Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO_X Budget Trading Program.

9 VAC 5-140-60 E.1 Copies of all documents used to complete a NO_X Budget permit application and any other submission under the NO_X Budget Trading Program or to demonstrate compliance with the requirements of the NO_X Budget Trading Program.

9 VAC 5-140-60 E.1 The NO_X authorized account representative of a NO_X Budget source and each NO_X Budget unit at the source shall submit the reports and compliance certifications required under the NO_X Budget Trading Program, including those under Part I, Article 4 (9 VAC 5-140-300 et seq.), Article 8 (9 VAC 5-140-700 et seq.), or Article 9 (9 VAC 5-140-800 et seq.).

Certification

9 VAC 5-50-30 and 9 VAC 5-140-300 The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.

Liability

9 VAC 5-140-100 F.1 Any person who knowingly violates any requirement or prohibition of the NO_X Budget Trading Program, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to applicable State or Federal law.

9 VAC 5-140-100 F.2 Any person who knowingly makes a false material statement in any record, submission, or report under the NO_X Budget Trading Program shall be subject to criminal enforcement pursuant to the applicable State or Federal law.

9 VAC 5-140-100 F.3 No permit revision shall excuse any violation of the requirements of the NO_X Budget Trading Program that occurs prior to the date that the revision takes effect.

9 VAC 5-140-100 F.4 Each NO_X Budget source and each NO_X Budget unit shall meet the requirements of the NO_X Budget Trading Program.

9 VAC 5-140-100 F.5 Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget source or the NO_X authorized account representative of a NO_X Budget source shall also apply to the owners and operators of such source and of the NO_X Budget units at the source.

9 VAC 5-140-100 F.6 Any provision of the NO_X Budget Trading Program that applies to a NO_X Budget unit or the NO_X authorized account representative of a NO_X budget unit shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO_X authorized account representative of one NO_X Budget unit shall not be liable for any violation by any other NO_X Budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

Effect on Other Authorities.

(9 VAC 5-140-100 G) No provision of the NO_X Budget Trading Program, a NO_X Budget permit application, a NO_X Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO_X authorized account representative of a NO_X Budget source or NO_X Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, the Clean Air Act.

CONFIDENTIAL INFORMATION-The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

Original Public Participation: February 26, 2001, Richmond Times Dispatch, Closed on March 28, 2001. No public comments received.

EPA Region III comments received via e-mail on March 28, 2001.

The following is a discussion of EPA's comments:

1. General Comment: The permit contains a number of applicable requirements derived from 40 CFR part 60, subpart Da. You should add the appropriate citations from this subpart to the citation of authority portion of the relevant permit conditions, particularly those that involve applicable requirement streamlining. Likewise, the appropriate citations from Virginia regulations that are streamlined with more stringent requirements from 40 CFR part 60, subpart Da should also be included with the relevant permit conditions.

The appropriate NSPS citations have been added to Conditions IV.A.1, 8, and 10. They have also been added to Table IV.A.5. The monitoring citation (9 VAC 5-50-40) has been added to the monitoring section conditions, and the record keeping and reporting citation (9 VAC 5-50-50) has been added to the conditions in these sections.

Furthermore, we recommend that you add a general condition to the permit requiring the permittee to operate the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B] in accordance with the requirements of 40 CFR part 60, subparts A and Da.

This condition (A.IV.19) has been added.

2. Condition No. IV.A.5 and Table IV.A.5: This condition establishes pollutant-specific emission limits for the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B]. You should amend the condition to indicate that the annual limits "for all boilers" applies on a "combined" basis.

This table has been amended to include the word "combined."

3. Condition No. IV.A.6: This condition establishes the NOx emission limitations for the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B]. You should amend this condition to indicate that the stated limits applies on a per-unit basis and not for "each pair of boilers". You may be able to justify the 40 CFR part 60, subpart A provides that certain emission limits may apply on a combined basis provided adequate continuous emissions monitoring is performed.

This condition has been amended to say "each boiler" instead of "each pair of boilers."

It should be noted that in an email dated 4/16/2001, the facility did not agree that this change added stringency to the permit condition. Also, the facility suggested that the standard in Subpart Da for NO_x be considered in the SOB for streamlining.

In conversations with EPA Region III, the EPA representative (Mr. Dave Campbell) pointed out that averaging may be possible if one boiler ran at an extremely low NO_x emission rate while another boiler ran at a rate much higher than the PSD limit. In this case, it is possible that one unit be out of compliance, but that the pair of boilers be in compliance and that streamlining the NSPS Subpart Da standard may not be a valid use of streamlining guidance. This occurrence would be extremely rare since the boilers generally operate in similar manners and review of past emission evaluation reports show that this occurrence has never happened, but the possibility cannot be completely discounted. Also to be noted is that each boiler currently demonstrates compliance with the NO_x emission limit. Each boiler has a NO_x monitor for which 30 day rolling averages are calculated for each unit. Therefore, changing this language in the permit to reflect the NO_x limitation of 0.3 lbs/mmbtu would not require a revamping of the CEMs system nor would it change the reporting that the facility already performs on a quarterly basis. Therefore, the change requested by EPA Region III was implemented in the permit.

4. Condition No. IV.C.1: This condition pertains to the permittee's record keeping obligations regarding operation of the baghouses for the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B]. You should amend the condition to remove reference to the "periodic monitoring response plan" as discussed in the permit. The appropriate periodic monitoring strategy should be reflected with conditions within the permit itself. Reference to the periodic monitoring response plan elsewhere in the permit should be addressed in a similar fashion.

Reference to the periodic monitoring response plan have been deleted. Conditions IV.B.16 and IV.B.17 have been added to delineate appropriate measures to be taken when pressure drop across a baghouse is too high. Record keeping and reporting conditions have also been changed to reflect these new conditions.

5. Condition No. IV.C.8: This condition contains the permittee's record keeping obligations regarding the PM, SO2, VOC, and CO emission limits for the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B]. You should amend this condition to require the permittee to maintain records regarding actual emission rates of the boilers relevant to the limits.

This condition has been amended to require that both the stack testing reports for PM_{10} , CO, and VOC are kept as well as the calculated actual emission rates. SO_2 was not required to be calculated nor tested since the boilers are all equipped with SO_2 monitors on both the inlet and the outlet of the scrubbers controlling each boiler. These monitors are required to keep records of the 3 hour average emissions of SO_2 in units of lbs/mmbtu and report them quarterly in a manner similar to the requirements for NO_x ; therefore, other calculations are unnecessary.

6. Section IV.D: This section provides the permittee's obligations for testing with respect to the limitations established in Section IV.A of the permit. The permit lacks adequate periodic monitoring for the PM, SO2, VOC, and CO emission limits for the boilers [1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B]. In addition to routine fuel sampling and emission calculation, you should amend the permit to require the permittee to perform stack testing at least once per permit term for the pollutants identified above. The permit should also provide that more frequent or additional stack testing shall be performed if required testing indicates compliance issues

A testing condition as described in the above paragraph has been added for PM_{10} , CO, and VOC. See condition IV.D.6 of the Title V permit.

However, SO_2 testing was not added due to the presence of SO_2 monitors on both the inlet and the outlet of the scrubbing device of each boiler. These monitors are required to keep rolling 3 hour averages of data in lbs/mmbtu, and these data must be reported quarterly. In the same manner that no NO_x testing is required in this permit, the agency does not believe that SO_2 testing is necessary in this case due to the presence of the direct compliance monitors.

It should be noted that the facility, in an email dated 4/16/2001, did not agree with the requirement for testing of PM_{10} , CO, and VOC. The facility pointed out that much testing of these pollutants has occurred in 1999 and 2000 due to permit amendments and in house testing programs. No tests have ever shown an exceedence of any standard for these pollutants; most tests show emission rates well below all standards.

The original request from EPA Region III was for testing on all boilers every year. The existence of prior testing showing emission rates well below permitted standards was used to demonstrate to EPA Region III that the original request was not necessary. Testing one stack every 5 years is adequate to maintain some

level of assurance that the facility does indeed meet their PM_{10} , CO, and VOC standards on a continuous basis.

7. Condition Nos. V.A.5 and 6: These conditions establish annual particulate matter emission limits for the fuel handling and ash unloading systems. For purposes of practical enforceability, you should amend the conditions to indicate that annual emissions are to be determined for each consecutive 12-month period.

These conditions have been amended with the sentence, "Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period."

This permit was proposed to EPA Region III on January 17, 2006 for the 45-day review period. A response was given that the permit draft had been received and since that day no comments were received from EPA during this period.
This permit was public noticed in the Richmond-Times Dispatch on Friday, January 20th, 2006. No comments were received from the public.
During the comment period, DEQ received a Change of Ownership Agreement Form from Mr. Mark A. Casper of Cogentrix Energy, Inc in Charlotte, NC. This letter notified DEQ that the Richmond, VA facility would now be known as Spruance Genco, LLC and not as Cogentrix of Richmond, Inc. This administrative change was applied to the permit during the comment period.