



**Public Service
of New Hampshire**

A Northeast Utilities Company

PSNH Energy Park
780 North Commercial Street, Manchester, NH 03101

Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
(603) 634-2236
Fax (603) 634-2213
macdojm@psnh.com

D31331

June 18, 2012

Mr. Craig A. Wright, Acting Director
NH Department of Environmental Services
Air Resources Division
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

John M. MacDonald
Vice President - Generation

**Public Service Company of New Hampshire
Schiller Station
Request for Temporary Permit**

Dear Mr. Wright:

In accordance with the requirements of Env-A 607.03, *Application for Temporary Permits*, Public Service Company of New Hampshire (PSNH) submits the enclosed permit application package for a temporary permit to document current emission limitations, specific to footnotes 3, 4, 18 and 24 found in the Schiller Station Title V Operating Permit TV-OP-053. PSNH understands that once the emission limits are identified in a Temporary Permit, an application for Minor Modification of the Title V Permit shall be submitted to NHARD requesting that the conditions of the Temporary Permit be incorporated into Schiller's Title V permit.

As required one additional copy of this application package is included in this submittal. Please contact Sheila A. Burke, Senior Compliance Consultant at (603) 634-2512 if you have any questions or require additional information.

"I am authorized to make this submission on behalf of the facility for which the submission is made. Based on information and belief formed after reasonable inquiry, I certify that the statements and information in the enclosed documents are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

Sincerely,

John M. MacDonald

Vice President – Generation

Enclosure

3. Legal Contact:

Linda T. Landis

Contact Person

Senior Counsel

Title

780 North Commercial Street

Address

Manchester NH 03105

Town/City State Zip Code

603-634-2700

Telephone Number

landilt@nu.com

E-mail Address

4. Invoicing Contact:

Sheila A. Burke

Contact Person

Senior Compliance Consultant

Title

780 North Commercial Street

Address

Manchester NH 03105

Town/City State Zip Code

603-634-2512

Telephone Number

burkesa@nu.com

E-mail Address

H. Major Activity or Product Descriptions - List all activities performed at this facility and provide SIC code(s):

Description of Activity or Product	SIC Code
Electric Power Generation	4911

I. Other Sources or Devices - List sources or devices at the facility (other than those that are the subject of this application) that are permitted pursuant to Env-A 600:

Source or Device	Permit #	Expiration Date
Unit 5 - Wood Boiler	TP-0085	03/31/2013

II. Total Facility Emissions Data¹:

Pollutant	CAS #	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO ₂	7446-09-5	909.8	2846	1706.4	12466
NO _x		281.2	891	602.6	3526
CO	630-08-8	17.7	234	40.6	1019
PM/PM ₁₀	N/A	19.6	152	35.3	663
VOC	N/A	5.2	10	15.4	41

Note: For Regulated Toxic Air Pollutants list name and Chemical Abstract Service Number (CAS #) – use additional sheets if necessary.

¹ Actual emissions calculate using calendar year 2011 emissions and hours of operation reported April 15, 2012. Potential emissions based on maximum operational emission limits contains in permits issued by NHDES ARD.

III. Support Data² *The following data must be submitted with this application:*

- A copy of all calculations used in determining emissions;
- A copy of a USGS map section with the site location clearly indicated; and
- A to-scale site plan of the facility showing:
 1. the locations of all emission points;
 2. the dimensions of all buildings, including roof heights; and
 3. the facility's property boundary.

IV. Certification (To be completed by a responsible official only):

I am authorized to make this submission on behalf of the affected source or affected units for which this submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the information submitted in this document and all of its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Print/Type Name: John M. MacDonald Title: Vice President-Generation

Signed:  Date: June 18, 2012

² USGS Map and Site Plans have been previously submitted to and are on file at NHDES Air Resources Division



Information Required for Permits for Fuel Burning Devices

I. EQUIPMENT INFORMATION – Complete a separate form for each device.

Device Description: Steam Boiler SR4
 Date Construction Commenced: 1952 Device Start-Up Date: 1952

A. Boiler Not Applicable

<u>Foster Wheeler</u> Boiler Manufacturer	<u>FW</u> Boiler Model Number
<u>90-1628</u> Boiler Serial Number	<u>574</u> Gross Heat Input Nameplate Rating (MMBtu/hr)
<u>NA</u> Burner Manufacturer	<u>CE RO Coal, PEC Oil</u> Burner Model Number <input type="checkbox"/> gal/hr
<u>NA</u> Burner Serial Number	<u>22.51 ton/hr @ 12,750</u> <input type="checkbox"/> mmcf/hr
	<u>BTU/lb, 3822.33 gal/hr</u> <input type="checkbox"/> ton/hr
	Potential Fuel Flow Rate

1. Type of Burner:

a. Solid Fuel:

- Cyclone
- Pulverized (wet dry)
- Spreader Stoker
- Underfeed Stoker
- Overfeed Stoker
- Hand-Fired
- Fly Ash Re-injection
- Other (specify): _____

b. Liquid Fuel:

- Pressure Gun
- Rotary Cup
- Steam Atomization
- Air Atomization
- Other (specify): _____

c. Gaseous Fuel:

- Natural Gas (Ignition)
- Propane
- Other (specify): _____

2. Combustion Type:

- Tangential Firing
- Opposite End Firing
- Limited Excess Firing
- Flue Gas Recirculation
- Staged Combustion
- Biased Firing
- One End Only Firing
- Other (specify): _____

B. Internal Combustion Engines/Combustion Turbines Not Applicable

<u>Manufacturer</u>	<u>Model Number</u>
<u>Serial Number</u>	<u>Fuel Flow Rate</u> <input type="checkbox"/> gal/hr
<u>Engine Output Rating</u> <input type="checkbox"/> hp <input type="checkbox"/> kW	<u>Reason for Engine Use</u> <input type="checkbox"/> mmcf/hr

C. Stack Information

Is unit equipped with multiple stacks? Yes No *(if yes, provide data for each stack)*

Identify other devices on this stack: _____

Is Section 123 of the Clean Air Act applicable? Yes No

Is stack monitoring used? Yes No

If yes, Describe: SO₂, NO_x, CO₂, flow, opacity, CO (not certified)

Is stack capped or otherwise restricted? Yes No

If yes, Describe: _____

Stack exit orientation: Vertical Horizontal Downward

8.0 ft

Stack Inside Diameter (ft) Exit Area (ft²)

230,000 (nominal)

Exhaust Flow (acfm)

412 °F

Exhaust Temperature (°F)

226

Discharge height above ground level (ft)

76.3 ft/sec

Exhaust Velocity (ft/sec)

II. OPERATIONAL INFORMATION

A. Fuel Usage Information

1. Fuel Supplier:

Various

Supplier's Name

Street

Town/City State Zip Code

Telephone Number

2. Fuel Additives:

Not Applicable

Manufacturer's Name

Street

Town/City State Zip Code

Telephone Number

Identification of Additive

Consumption Rate (gallons per 1000 gallons of fuel)

3. Fuel Information *(List each fuel utilized by this device):*

Type	% Sulfur	% Ash	% Moisture (solid fuels only)	Heat Rating (specify units)	Potential Heat Input (MMBtu/hr)	Actual Annual Usage (specify units)
Coal	3.06	5-8	5-8	12,750 Btu/lb	574	64,587 tons
#6 Oil	2.00	0.07	N/A	150,000 Btu/gal	575	736,176 gals
Biomass ¹	0.01-0.04	0.72-2.69	2.69-41.68	4500 Btu/lb	45.9	343 tons

¹ Biomass includes wood and cocoa bean shells. Fuel information based on wood.
 May 31, 2012

B. Hours of Operation

Hours per day: 24 Days per year: 365

III. POLLUTION CONTROL EQUIPMENT Not Applicable

A. Type of Equipment *Note: if process utilizes more than one control device, provide data for each device*

- | | |
|--|---|
| <input type="checkbox"/> baffled settling chamber | <input type="checkbox"/> wide bodied cyclone |
| <input type="checkbox"/> long cone cyclone | <input type="checkbox"/> irrigated long cone cyclone |
| <input type="checkbox"/> multiple cyclone (<u> </u> inch diameter) | <input type="checkbox"/> carbon absorption |
| <input checked="" type="checkbox"/> electrostatic precipitator | <input type="checkbox"/> irrigated electrostatic precipitator |
| <input type="checkbox"/> spray tower | <input type="checkbox"/> absorption tower |
| <input type="checkbox"/> venturi scrubber | <input type="checkbox"/> baghouse |
| <input type="checkbox"/> afterburners (incineration) | <input type="checkbox"/> packed tower/column |
| <input type="checkbox"/> selective catalytic reduction | <input checked="" type="checkbox"/> selective non-catalytic reduction |
| <input type="checkbox"/> reburn | |
| <input checked="" type="checkbox"/> other (specify): <u>Overfire Air</u> | |

B. Pollutant Input Information

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO2	<785	445.4	1377.6	877.5	6033.9
NOx	<785	118.5	287.5	233.5	1158.5
CO	<785	9.1	64.7	18.0	283.6
PM	<785	8.4	57.5	16.54	251.9
VOC	<785	1.1	2.9	2.2	12.8

Method used to determine entering emissions:

- stack test vendor data emission factor material balance
 other (specify): _____

C. Operating Data

- Capture Efficiency: 100% Verified by: test calculations
- Control Efficiency: varies% Verified by: test calculations
- Normal Operating Conditions (*supply the following data as applicable*)

<u>230,000 nominal</u> Total gas volume through unit (acfm)	<u>< 785</u> Temperature (°F)	_____ Percent Carbon Dioxide (CO ₂)
<u>45-60 KVDC</u> Voltage	<u>N/A</u> Spark Rate	<u>N/A</u> Milliamps
<u>0.6 - 8</u> Pressure Drop (inches of water)	<u>N/A</u> Liquid Recycle Rate (gallons per minute)	

IV. DEVICE EMISSIONS DATA:

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO2	<785	445.4	1377.6	877.5	6033.9
NOx	<785	118.5	287.5	233.5	1158.5
CO	<785	9.1	64.7	18.0	283.6
PM	<785	8.4	57.5	16.54	251.9
VOC	<785	1.1	2.9	2.2	12.8

Method used to determine exiting emissions:

stack test vendor data emission factor material balance

other (specify): PERMIT LIMITS USED FOR POTENTIAL NOX, TSP. SO2 LIMITS BASED ON DISPERSON MODELING EMISSION LIMIT. EMISSION FACTORS USED FOR CO, VOC. ACTUAL EMISSIONS ARE 2011 EMISSIONS REPORTED TONS, LB/HR BASED ON 2011 OPERATING HOURS.

C. Stack Information

Is unit equipped with multiple stacks? Yes No (if yes, provide data for each stack)

Identify other devices on this stack: _____

Is Section 123 of the Clean Air Act applicable? Yes No

Is stack monitoring used? Yes No

If yes, Describe: SO2, NOx, CO2, flow, opacity, CO (not certified)

Is stack capped or otherwise restricted? Yes No

If yes, Describe: _____

Stack exit orientation: Vertical Horizontal Downward

8.0 ft

Stack Inside Diameter (ft) Exit Area (ft²)

230,000 (nominal)

Exhaust Flow (acfm)

412 °F

Exhaust Temperature (°F)

226

Discharge height above ground level (ft)

76.3 ft/sec

Exhaust Velocity (ft/sec)

II. OPERATIONAL INFORMATION

A. Fuel Usage Information

1. Fuel Supplier:

Various

Supplier's Name

Street

Town/City

State

Zip Code

Telephone Number

2. Fuel Additives:

Not Applicable

Manufacturer's Name

Street

Town/City

State

Zip Code

Telephone Number

Identification of Additive

Consumption Rate (gallons per 1000 gallons of fuel)

3. Fuel Information (List each fuel utilized by this device):

Type	% Sulfur	% Ash	% Moisture (solid fuels only)	Heat Rating (specify units)	Potential Heat Input (MMBtu/hr)	Actual Annual Usage (specify units)
Coal	3.06	5-8	5-8	12,750 Btu/lb	574	57,870 tons
#6 Oil	2.00	0.07	N/A	150,000 Btu/gal	575	316,314 gals
Biomass ¹	0.01-0.04	0.72-2.69	2.69-41.68	4500 Btu/lb	45.9	104 tons

¹ Biomass includes wood and cocoa bean shells. Fuel information based on wood.
 May 31, 2012

B. Hours of Operation

Hours per day: 24 Days per year: 365

III. POLLUTION CONTROL EQUIPMENT Not Applicable

A. Type of Equipment *Note: if process utilizes more than one control device, provide data for each device*

- | | |
|--|---|
| <input type="checkbox"/> baffled settling chamber | <input type="checkbox"/> wide bodied cyclone |
| <input type="checkbox"/> long cone cyclone | <input type="checkbox"/> irrigated long cone cyclone |
| <input type="checkbox"/> multiple cyclone (<u> </u> inch diameter) | <input type="checkbox"/> carbon absorption |
| <input checked="" type="checkbox"/> electrostatic precipitator | <input type="checkbox"/> irrigated electrostatic precipitator |
| <input type="checkbox"/> spray tower | <input type="checkbox"/> absorption tower |
| <input type="checkbox"/> venturi scrubber | <input type="checkbox"/> baghouse |
| <input type="checkbox"/> afterburners (incineration) | <input type="checkbox"/> packed tower/column |
| <input type="checkbox"/> selective catalytic reduction | <input checked="" type="checkbox"/> selective non-catalytic reduction |
| <input type="checkbox"/> reburn | |
| <input checked="" type="checkbox"/> other (specify): <u>Overfire Air</u> | |

B. Pollutant Input Information

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO2	<785	467.1	1337.6	832.7	6033.9
NOx	<785	122.5	287.5	218.4	1158.5
CO	<785	8.6	64.7	15.3	283.6
PM	<785	8.3	57.5	14.74	251.9
VOC	<785	1.1	2.9	1.9	12.8

Method used to determine entering emissions:

- stack test vendor data emission factor material balance
 other (specify): _____

C. Operating Data

1. Capture Efficiency: 100% Verified by: test calculations
2. Control Efficiency: varies% Verified by: test calculations
3. Normal Operating Conditions (*supply the following data as applicable*)

<u>230,000 nominal</u> Total gas volume through unit (acfm)	<u>< 785</u> Temperature (°F)	<u>Not Available</u> Percent Carbon Dioxide (CO ₂)
<u>45-60 KVDC</u> Voltage	<u>N/A</u> Spark Rate	<u>N/A</u> Milliamps
<u>0.6 - 8</u> Pressure Drop (inches of water)	<u>N/A</u> Liquid Recycle Rate (gallons per minute)	

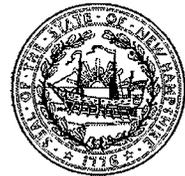
IV. DEVICE EMISSIONS DATA:

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO2	<785	467.1	1377.6	832.7	6033.9
NOx	<785	122.5	287.5	218.4	1158.5
CO	<785	8.6	64.7	15.3	283.6
PM	<785	8.3	57.5	14.74	251.9
VOC	<785	1.1	2.9	1.9	12.8

Method used to determine exiting emissions:

stack test vendor data emission factor material balance

other (specify): PERMIT LIMITS USED FOR POTENTIAL NOX, TSP. SO2 LIMITS BASED ON DISPERSON MODELING EMISSION LIMIT. EMISSION FACTORS USED FOR CO, VOC. ACTUAL EMISSIONS ARE 2011 EMISSIONS REPORTED TONS, LB/HR BASED ON 2011 OPERATING HOURS.



Information Required for Permits for Fuel Burning Devices

I. EQUIPMENT INFORMATION – Complete a separate form for each device.

Device Description: Combustion Turbine
 Date Construction Commenced: 1970 Device Start-Up Date: 1970

A. Boiler Not Applicable

Boiler Manufacturer _____ Boiler Model Number _____
 Boiler Serial Number _____ Gross Heat Input Nameplate Rating (MMBtu/hr) _____
 Burner Manufacturer _____ Burner Model Number _____ gal/hr
 _____ mmcf/hr
 _____ ton/hr
 Burner Serial Number _____ Potential Fuel Flow Rate _____

1. Type of Burner:

a. Solid Fuel:

- Cyclone
- Pulverized (wet dry)
- Spreader Stoker
- Underfeed Stoker
- Overfeed Stoker
- Hand-Fired
- Fly Ash Re-injection
- Other (specify): _____

b. Liquid Fuel:

- Pressure Gun
- Rotary Cup
- Steam Atomization
- Air Atomization
- Other (specify): _____

c. Gaseous Fuel:

- Natural Gas (Ignition)
- Propane
- Other (specify): _____

2. Combustion Type:

- Tangential Firing
- Opposite End Firing
- Limited Excess Firing
- Flue Gas Recirculation
- Staged Combustion
- Biased Firing
- One End Only Firing
- Other (specify): _____

B. Internal Combustion Engines/Combustion Turbines Not Applicable

Pratt & Whitney _____ FT4A-9DF _____
 Manufacturer _____ Model Number _____ gal/hr
 NA _____ mmcf/hr
 Serial Number _____ Fuel Flow Rate _____
 29,503 hp _____
 Engine Output Rating _____ kW _____
 Load Shaving/Black Start _____
 Reason for Engine Use _____

C. Stack Information

Is unit equipped with multiple stacks? Yes No *(if yes, provide data for each stack)*

Identify other devices on this stack: _____

Is Section 123 of the Clean Air Act applicable? Yes No

Is stack monitoring used? Yes No

If yes, Describe: _____

Is stack capped or otherwise restricted? Yes No

If yes, Describe: _____

Stack exit orientation: Vertical Horizontal Downward

147 ft ² (10.5' x 14')	20
Stack <input checked="" type="checkbox"/> Inside Diameter (ft) <input type="checkbox"/> Exit Area (ft ²)	Discharge height above ground level (ft)
560,000	65.5 ft/sec
Exhaust Flow (acfm)	Exhaust Velocity (ft/sec)
905 °F	
Exhaust Temperature (°F)	

II. OPERATIONAL INFORMATION

A. Fuel Usage Information

1. Fuel Supplier:

Various

 Supplier's Name

 Street

 Town/City State Zip Code

 Telephone Number

2. Fuel Additives:

Not Applicable

 Manufacturer's Name

 Street

 Town/City State Zip Code

 Telephone Number

 Identification of Additive

 Consumption Rate (gallons per 1000 gallons of fuel)

3. Fuel Information *(List each fuel utilized by this device):*

Type	% Sulfur	% Ash	% Moisture (solid fuels only)	Heat Rating (specify units)	Potential Heat Input (MMBtu/hr)	Actual Annual Usage (specify units)
JP-4	0.05%	N/A	N/A	140,000 Btu/gal	290	22,838 gal
Natural Gas	15 gr/100cf	N/A	N/A	1020 Btu/ft ³	290	0

B. Hours of Operation

Hours per day: 24 Days per year: 365

III. POLLUTION CONTROL EQUIPMENT **Not Applicable**

A. Type of Equipment *Note: if process utilizes more than one control device, provide data for each device*

- | | |
|--|---|
| <input type="checkbox"/> baffled settling chamber | <input type="checkbox"/> wide bodied cyclone |
| <input type="checkbox"/> long cone cyclone | <input type="checkbox"/> irrigated long cone cyclone |
| <input type="checkbox"/> multiple cyclone (_____ inch diameter) | <input type="checkbox"/> carbon absorption |
| <input type="checkbox"/> electrostatic precipitator | <input type="checkbox"/> irrigated electrostatic precipitator |
| <input type="checkbox"/> spray tower | <input type="checkbox"/> absorption tower |
| <input type="checkbox"/> venturi scrubber | <input type="checkbox"/> baghouse |
| <input type="checkbox"/> afterburners (incineration) | <input type="checkbox"/> packed tower/column |
| <input type="checkbox"/> selective catalytic reduction | <input type="checkbox"/> selective non-catalytic reduction |
| <input type="checkbox"/> reburn | |
| <input type="checkbox"/> other (specify): _____ | |

B. Pollutant Input Information

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)

Method used to determine entering emissions:

- stack test vendor data emission factor material balance
 other (specify): _____

C. Operating Data

- Capture Efficiency: Verified by: test calculations
- Control Efficiency: Verified by: test calculations
- Normal Operating Conditions (*supply the following data as applicable*)

_____ Total gas volume through unit (acfm)	_____ Temperature (°F)	_____ Percent Carbon Dioxide (CO ₂)
_____ Voltage	_____ Spark Rate	_____ Milliamps
_____ Pressure Drop (inches of water)	_____ Liquid Recycle Rate (gallons per minute)	

IV. DEVICE EMISSIONS DATA:

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
SO2	905	0.12	14.6	0.00	64.1
NOx	905	161	261.0	1.38	971.7
CO	905	19.68	31.9	0.17	136.2
PM	905	0.77	29.0	0.01	127
VOC	905	0.07	0	0.00	0

Method used to determine exiting emissions:

stack test vendor data emission factor material balance

other (specify): PERMIT LIMITS USED FOR POTENTIAL TSP. SO2 LIMITS BASED ON DISPERSION MODELING EMISSION LIMIT LOW SULFUR FUEL. POTENTIAL NOX TONS/YR EMISSION BASED ON ANNUAL CAPACITY LIMIT OF 85% PER MODELING EMISSION LIMITATION. POTENTIAL NOX HOURLY EMISSION BASED ON NOX RACT LIMIT. EMISSION FACTORS USED FOR CO, VOC. ACTUAL EMISSIONS ARE 2011 EMISSIONS REPORTED TONS, LB/HR BASED ON 2011 OPERATING HOURS.

SUPPORTING CALCULATIONS

**SUPPORTING CALCULATIONS
TOTAL FACILITY EMISSIONS FOR ARD-1
PSNH SCHILLER STATION**

POTENTIAL EMISSIONS

Pollutant	SR4	SR5	SR6	SRCT	SREG	Total
Hourly (lb/hr)						
SO2	1377.6	76.2	1377.6	14.6	0.0	2846.0
NOx	287.5	54.0	287.5	261.0	1.3	891.3
CO	64.7	72.0	64.7	31.9	0.8	234.1
PM	57.5	7.2	57.5	29.0	0.9	152.1
VOC	2.9	3.6	2.9	0.0	0.2	9.6
Annual (tons/yr)						
SO2	6033.9	333.8	6033.9	64.1	0.0	12465.7
NOx	1158.5	236.5	1158.5	971.7	0.3	3525.5
CO	283.6	315.4	283.6	136.2	0.2	1019.0
PM	251.9	31.5	251.9	127.0	0.2	662.5
VOC	12.8	15.8	12.8	0.0	0.0	41.4

ACTUAL EMISSIONS

Pollutant	SR4	SR5	SR6	SRCT	SREG	Total
Op. Hours	3940	7435	3656	17.09	9.8	-
Hourly (lb/hr)						
SO2	445.4	0.6	452.2	0.0	0.0	898.3
NOx	118.5	40.2	119.5	161.5	0.0	439.7
CO	9.1	1.9	8.4	19.9	0.0	39.3
PM	8.4	1.1	8.1	1.2	0.0	18.7
VOC	1.1	3.0	1.0	0.0	0.0	5.2
Annual (tons/yr)						
SO2	877.5	2.2	826.7	0.0	0.0	1706.4
NOx	233.5	149.3	218.4	1.4	0.0	602.6
CO	18.0	7.1	15.3	0.2	0.0	40.6
PM	16.5	4.0	14.7	0.0	0.0	35.3
VOC	2.2	11.3	1.9	0.0	0.0	15.4

Notes:

1. Potential emissions for SR5 are from Temporary Permit TP-0085, issued 9/27/2011
2. Potential emissions of PM, and NOx for SR4 and SR6 are from Title V Operating Permit TV-OP-053, Table 6.
3. Potential SO2 emissions for SR4 and SR6 based on 2.4 lb/mmbtu emission rate (agreed NAAQS Modeling)
4. Potential SO2 emissions for SRCT based on fuel sulfur limit of 0.05% (agreed NAAQS Modeling)
4. Potential NOx emissions for SRCT based on 85% annual operation cap agreed to for NAAQS.
5. Potential CO and VOC based on AP-42 emission factors
6. Actual hourly emissions based on 2011 emissions divided by the number of operating hours

**SUPPORTING CALCULATIONS
TOTAL FACILITY EMISSIONS FOR ARD-1
PSNH SCHILLER STATION**

SULFUR CONCENTRATIONS

		Sulfur lb/mmbtu	Heating Value Btu/lb	lb/mmbtu	% sulfur
SR4	Coal	2.4	12750	78.4	3.0
	Oil	-	-	-	2.0
	Biomass				0.01-0.04
SR5	Biomass	0.025	4274	234	0.01
	Coal				
SR6	Coal	2.4	12750	78.4	3.0
	Oil	-	-	-	2.0
	Biomass				0.01-0.04
SRCT	JP-4	-	-	-	0.05
	Natural Gas	15 grains/100cf			
SREG	Natural Gas	15 grains/100cf			
	Propane	15 grains/100cf			

CORPORATE AFFIDAVIT

CORPORATE AFFIDAVIT

I certify that Public Service Company of New Hampshire is the owner of the real Property located at 400 Gosling Road, Portsmouth, New Hampshire 03801, and that Public Service Company of New Hampshire has the legal right to use said property for the operation of Schiller Station.



Robert A. Bersak

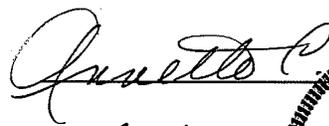
ASSISTANT SECRETARY

Title of Corporate Officer

State of New Hampshire
County of Hillsborough

On this 25th day of May, 2012, before me Annette C. Mayo, the undersigned officer, personally appeared Robert A. Bersak, who acknowledged himself to be the Assistant Secretary of Public Service Company of New Hampshire, a corporation, and that he, as such Assistant Secretary, being authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Robert A. Bersak.

In witness whereof I hereunto set my hand and official seal.



Notary
Title of Officer

