



**Public Service
of New Hampshire**

January 30, 2007

Mr. Robert R. Scott, Director
Air Resources Division
NH Dept. of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

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) 669-4000
www.psnh.com

The Northeast Utilities System

**RECEIVED
NEW HAMPSHIRE**

JAN 30 2007

AIR RESOURCES DIVISION

Public Service Company of New Hampshire, Schiller Station
Amendment to Title V Operating Permit TV-OP-053

Dear Mr. Scott,

Public Service Company of New Hampshire (PSNH) submits the enclosed application for a significant modification to Schiller Station's Title V Operating Permit, TV-OP-053. This permit amendment is necessary to incorporate the terms and conditions of the Temporary PSD Permit, TP-B-0501, previously issued by the New Hampshire Department of Environmental Services, Air Resources Division for the construction of a new 50 megawatt wood-fired boiler with coal firing capability. TP-B-0501, issued on October 25, 2004 and reissued on March 7, 2005, expires on April 30, 2007. This application is being submitted 90 days prior to the expiration of TP-B-0501, as required by Env-A 607.

With this submittal, PSNH requests that the significant permit modification procedures be used to amend TV-OP-053. The repowering/replacement of the Unit 5 boiler with a new 50 megawatt wood-fired boiler qualifies as a significant modification under Env-A 612.06. In accordance with the requirements of Env-A 612.06(c), the enclosed application includes the following:

1. Application forms (ARD-1, ARD-2 and ARD-3);
2. A description of the change and emissions resulting from the change;
3. A list of applicable requirements;
4. Suggested draft permit conditions; and
5. A certification by a responsible official that the proposed change meets the criteria for the use of the significant permit modification procedures.

Air pollution dispersion modeling was completed and submitted as part of the application for a Temporary PSD Permit on January 30, 2004, with subsequent updates submitted on February 14, 2005 and April 20, 2006. Pursuant to Env-A 606.02, no additional modeling is required at this time. As an application for an amendment to a Title V Operating Permit, additional permit application review fees specified in Env-A 702 through Env-A 705 are also not required.

If you have any questions, or would like additional information, please contact Laurel L. Brown, Senior Analyst, PSNH Generation, at 634-2331.

Sincerely,

William H. Smagula, P.E.
Director - Generation

Enclosure

STATE OF NEW HAMPSHIRE
Department of Environmental Services
Air Resources Division
P.O. Box 95
Concord, NH 03302-0095
Telephone: 603-271-1370

Form
ARD-1



RECEIVED
NEW HAMPSHIRE

JAN 30 2007

General Information for All Permit Applications

AIR RESOURCES DIVISION

I. FACILITY INFORMATION - Complete the following:

A. Type of Application: New

Renewal Modification

B. Physical Location:

PSNH Schiller Station

Facility Name

400 Gosling Road

Street

Portsmouth

Town/City

NH 03801

State Zip Code

C. Mailing Address:

400 Gosling Road

Street/P.O. Box

Portsmouth

Town/City

NH 03801

State Zip Code

603.431.2550

Telephone Number

D. USGS
Coordinates:

UTM	
Easting:	35,4770
Northing:	4,772,950

or

Latitude/Longitude			
N Latitude:	Deg 43	Min 05	Sec 52
W Longitude:	Deg 70	Min 47	Sec 03

E. Owner:

Public Service Company of NH

Company

780 North Commercial Street

Street/P.O. Box

Manchester

Town/City:

NH 03101

State Zip Code

603.669.4000

Telephone Number

F. Parent Corporation:

Northeast Utilities

Company

Contact Person/Title

PO Box 270

Street/P.O. Box

Hartford

Town/City:

CT 06141

State Zip Code

860.665.5000

Telephone Number

G. Contact Information

1. General/Technical Contact:

Laurel L. Brown

Contact Person

Senior Environmental Analyst

Title

780 North Commercial Street

Address

Manchester

Town/City

NH 03101

State Zip Code

603.634.2331

Telephone Number

brownll@nu.com

E-mail Address

2. Application Preparation:

Public Service Company of NH

Company

Laurel L. Brown

Contact Person

780 North Commercial Street

Address

Manchester

Town/City

NH 03101

State Zip Code

603.634.2331

Telephone Number

brownll@nu.com

E-mail Address

3. Legal Contact:

Linda T. Landis

Contact Person

Senior Counsel

Title

780 North Commercial Street

Address

Manchester

NH 03101

Town/City

State Zip Code

603.634.2700

Telephone Number

landilt@nu.com

E-mail Address

4. Invoicing Contact:

Laurel L. Brown

Contact Person

Senior Environmental Analyst

Title

780 North Commercial Street

Address

Manchester

NH 03101

Town/City

State Zip Code

603.634.2331

Telephone Number

brownll@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
Energy conversion facility producing electricity	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 #4, Unit #6, Combustion Turbine #1	TV-OP-053	12/31/2011
Emergency Generator, Coal Crusher	TV-OP-053	12/31/2011

II. Total Facility Emissions Data¹:

Pollutant	CAS #	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
PM / PM10		86.17	172.2	348.4	755.6
SO ₂		1923.8	4993.8	7775.0	21872.8
NO _x		432.56	861.0	1748.3	377.8
CO		30.83	57.4	124.72	251.4
VOC		3.74	8.72	15.12	38.2

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

¹ Actual emissions calculated using calendar year 2005 emissions and hours of operation. Potential emissions calculated using operating and emissions limitations contained in current permits issued by NH DES ARD.

III. Support Data *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
Submitted with application for Temporary PSD Permit, Jan. 2004
- A to-scale site plan of the facility showing:
Submitted with application for Temporary PSD Permit, Jan. 2004
 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 Energy Delivery & Generation

Signed:



Date: January 29, 2007

Attachment ARD-1, Section II

Schiller Station
Total Facility Emissions Data

Sample Calculation = (tons * 2000) / annual hrs of operation

Facility Lb/Hr and TPY Emissions Data (2005)

		SO2 Tons	NOx Tons	CO Tons	VOC Tons	TSP Tons	Total Tons
SR5	TPY	2,566.00	524.40	41.13	4.99	128.84	3,265.36
	Lb/Hr	2,935.42	599.90	47.05	5.71	147.39	
SR4	TPY	2,681.00	641.40	40.72	4.93	106.78	3,474.83
	Lb/Hr	689.65	164.99	10.47	1.27	27.47	
SR6	TPY	2,528.00	582.50	42.87	5.20	112.78	3,271.35
	Lb/Hr	40538.81	9340.92	687.46	83.39	1808.53	
Facility	TPY	7,775.00	1,748.30	124.72	15.12	348.40	10,011.54
	Lb/Hr	44,163.88	10,105.81	744.99	90.36	1,983.39	

2005 Hours of Operation

	SH4	SH5	SH6
JAN	744.00	774.00	744.00
FEB	672.00	616.00	672.00
MAR	739.70	713.00	742.80
APR	268.30	719.00	446.10
MAY	697.10	586.70	744.00
JUN	720.00	670.50	720.00
JUL	744.00	664.60	744.00
AUG	744.00	609.70	744.00
SEP	558.60	664.60	629.60
OCT	745.00	636.80	732.30
NOV	710.01	662.40	720.00
DEC	550.50	684.70	744.00
TOTAL	7,893.21	8,002.00	8,382.80



Information Required for Permits for Fuel Burning Devices

JAN 30 2007

AIR RESOURCES DIVISION

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

Device Description: Unit #5 Boiler
Date Construction Commenced: October 2004 Device Start-Up Date: July 2006

A. Boiler Not Applicable

Alstom Power
Boiler Manufacturer
66008504
Boiler Serial Number
COEN
Burner Manufacturer
50D-14675-1-00
Burner Serial Number

National Board #24237
Boiler Model Number
~720 (wood) / ~ 635 (coal)
Gross Heat Input Nameplate Rating (MMBtu/hr)
FYR COMPAK DAF-30
Burner Model Number gal/hr
 mmcf/hr
76.5 (wood) / 23.3 (coal) 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

b. Liquid Fuel:

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

c. Gaseous Fuel:

- Natural Gas
- 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): Overbed Feed

B. Internal Combustion Engines/Combustion Turbines Not Applicable

Manufacturer _____
Serial Number _____
Engine Output Rating hp kW

Model Number _____
Fuel Flow Rate gal/hr mmcf/hr
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: Opacity, SO₂, NO_x, CO, Flow, O₂

Is stack capped or otherwise restricted? Yes No

If yes, Describe: _____

Stack exit orientation: Vertical Horizontal Downward

8
 Stack Inside Diameter (ft) Exit Area (ft²)

226
 Discharge height above ground level (ft)

~275,000
 Exhaust Flow (acfm)

~53
 Exhaust Velocity (ft/sec)

~317
 Exhaust Temperature (°F)

II. OPERATIONAL INFORMATION

A. Fuel Usage Information

1. Fuel Supplier:

Multiple Suppliers (See Attached List)
 Supplier's Name

Street

Town/City State Zip Code

Telephone Number

2. Fuel Additives:

N/A
 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				See attached analytical data		TBD
Wood				See attached analytical data		TBD

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 checked="" 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>Limestone Injection System</u> | |

B. Pollutant Input Information

Pollutant	Temperature (°F)	Actual (lb/hr)	Potential (lb/hr)	Actual (ton/yr)	Potential (ton/yr)
PM / PM10	N/A	N/A	N/A	N/A	N/A
SO ₂	N/A	N/A	N/A	N/A	N/A
NO _x	N/A	N/A	N/A	N/A	N/A
CO	N/A	N/A	N/A	N/A	N/A
VOC	N/A	N/A	N/A	N/A	N/A

Method used to determine entering emissions:

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

C. Operating Data

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

Baghouse:

Predicted at inlet = 197,317

Total gas volume through unit (acfm)

N/A

Voltage

N/A

Pressure Drop (inches of water)

Baghouse:

Predicted at inlet = 283° (coal),

340° (wood @ 47.58% moisture)

Temperature (°F)

N/A

Spark Rate

N/A

Liquid Recycle Rate (gallons per minute)

N/A

Percent Carbon Dioxide (CO₂)

N/A

Milliamps

IV. DEVICE EMISSIONS DATA:

Pollutant	Actual (lb/hr) ¹	Potential (lb/hr) ²	Actual (ton/yr) ³	Potential (ton/yr)
PM	0.7 / 1.2 (wood) (coal)	7.2	N/A	31.5
SO ₂	0.34	76.2	N/A	333.8
NO _x	38.4	54.0	N/A	236.5
CO	3.3	72.0	N/A	315.4
VOCs	N/A	3.6	N/A	15.8

Method used to determine exiting emissions:

stack test vendor data emission factor material balance

other (specify): _____

¹ SO₂, NO_x, and CO actual lb/hr emissions are based on certified CEM emissions data (Dec. 2006); PM actual lb/hr emissions are based on stack testing data.

² Potential lb/hr and tons per year emissions are based on permit allowable.

³ Actual tons per year emissions are not yet available.

Attachment ARD-2, Section II.A.1.
 Schiller Unit #5 Boiler
 Fuel Supplier Information

Supplier Name	Address		
Wood			
Anderson Logging and Trucking	12 Woods Road	Westminster	MA
Anderson Logging and Lumber	36 Nichols Street	Westminster	MA
John Berson, Rocky Mountain Wood Co	2660 R Boston Rd	Wilbraham	MA
John Brightman, Brightman Lumber	181 South Main Street	Assonet	MA
John Brown and Sons	14 B&B Lane	Weare	NH
D.R. Burl and Sons Land Clearing	397 Hermit Rd	Manchester	NH
Bobby Carr	83 Mill Turn Road	Limington	ME
Chappell Farms	116 Osgood Road	Milford	NH
R.J. Cobb Land Clearing Russ Cobb	174 Maple St.	Bellingham	MA
Cook Company	252 Milford Street	Upton	MA
Dennis Crowley	389 Lane Rd	Chester	NH
Arthur Cutter	79 Tuttle Rd-Salisbury	Warner	NH
William Day JR.	P.O. Box 392	Parsonsfield	ME
Fort Mountain Trucking	168 Granite St	Allenstown	NH
Rocky Hill Transport	34 Butterfield Road	Saugus	MA
Garland Lumber	PO Box 3184	North Conway	NH
Garner Bros. Logging	26 Fruit St.	Hopkinton	MA
Roger Godin	28 Marble Road	Spencer	MA
A.W. Greymont Jr. Trucking	160 Brackett Rd	New Durham	NH
Gerry Haynes	Box 59	New Boston	NH
Evergreen Forest Products	36 Alderbrook Road	Jefferson	NH
Pro Bark Inc.	51 Kingston Road	Plaistow	NH
All Wood Recycling	22 West Rd.	Hudson	NH
Epsom Land Clearing	P.O. Box 179	Epsom	NH
Index Packaging	1055 White Mountain Hy	Milton	NH
Sunnynook Farms	32 Neck Rd	Rochester	MA
Fred Leclair	789 Main Street	Fremont	NH
R.Lemire and Sons, LLC	237 Elm St	Antrim	NH
North Country Lumber	PO Box 239	West Ossipee	NH
Robert W. Libby and Sons	483 Old Meeting House I	Porter	ME
R.C. McLucas Trucking Inc.	PO Box 67	Porter	ME
Adam Mock Logging and Chipping	1348 Pleasant St.	Webster	NH
Asplundh	2255 Northway Drive	Mount Pleasant	MI
Pearson Landscaping	2 Fruit St.	Byfield	MA
Monadnock Land Clearing	P.O. Box 547	Greenville	NH
Tim & John Pelletier LLC	327 Rt. 13	Brookline	NH
Eastern Logging		Merrimack	NH
Joe Putnam	599 Morrells Mill Rd	North Berwick	ME
Lumberjack Logging	66 Tenney Rd.	Goffstown	NH
Chuck Rose	1081 Battle St	Webster	NH
Oakwoods Lumber	310 Oak Woods Road	North Berwick	ME
J.S. Logging	50 Mt. Tugg Rd	Northfield	NH
Scott Sweet	Box 234	Strafford	NH
Jr. Taylor and Sons	37 Cross Rd Box 24	Porter	ME
Top Dog Tree Service	160 Shelburn Ave	Portsmouth	NH
Harvey Woodward	62 Stage Rd	Nottingham	NH
D.H. Hardwick and Sons	P.O. Box 430	Antrim	NH

Attachment ARD-2, Section II.A.1.

Schiller Unit #5 Boiler

Fuel Supplier Information

Supplier Name	Address		
Bob Lee/ C & C Chipping	34 Birchwood Dr.	Allentown	NH
North East Harvester/Blue Chip Trucking Ray Lyons	1316 River Rd	Plymouth	NH
Willowbend Wood Services	41 North Rd	North Hampton	NH
Ed's Tree Service	33 Isaac Bradway Rd.	Hampden	MA
Perry Farms	219 Union St.	Randolph	MA
Triple L Trucking, Randy Wilson	6 Foster Hill Rd	Henniker	NH
Benson Lumber and Hardware	Main St, P.O. Box 444	Derry	NH
York Woods Tree	171 York Woods Road	So. Berwick	ME
ARthur Cutter	152 Towles Hill Rd	Cornish	ME
M.H.Humphrey & Sons, Inc	P.O. box 101	Parsonsfield	ME
Landex Inc.	88 Lafayette Rd.	Newburyport	MA
Jason Curtis Outdoor Services, Inc.	89 Griffin Rd	Deerfield	NH
Cousineau Forest Products	42 Old Concord Rd	Henniker	NH
Chris Faustino	47 Mattapoissett Rd.	Rochester	MA
Advanced Wood Energy	376 Clough Hill Road	Loudon	NH
Hopkinton Forestry and Landclearing	P.O.Box 2089	Henniker	NH
North Country Mulch	236 Maple St.	Bellingham	MA
New Engalnd Tree Service	160 Dennet Rd	Kittery	ME
Formula Cartage Inc.	33 Franklin Court	Naples	ME
Coal			
Peabody - Coaltrade International, LLC	701 Market Street	St. Louis	MO
Inter-American Coal Inc.	5016 Dorsey Hall Dr	Ellicott City	MD

**Attachment ARD-2, Section II.A.3.
Schiller Unit #5 Boiler
Fuel Information**

Fuel Information
SR5 Analytical Data
Wood and Coal



Analysis Report

Sample Number 6837
Station Schiller
Date Received 12/11/06
As Fired 11/17/06
Air Drying Loss 43.52%

Report Date 12/14/06
Work Order 06-1987
Source Identification
Run # 1 Wood Chips

Proximate/Ulimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried
Moisture		43.52%		0.00%
Ash,%	12/12/06	0.69	1.22	1.22
BTU/Lb	12/12/06	4498	8000	7964
Sulfur, %	12/12/06 Less Than	0.03	0.05	0.05
Carbon,%	12/13/06	28.13	49.8	49.8
Hydrogen,%	12/13/06	3.48	6.17	6.17
Nitrogen,%	12/13/06	0.24	0.42	0.42
Oxygen,%	12/13/06	23.94	42.39	42.39
Hg-Mercury Total ug/Kg	12/12/06 Less Than	14.12	25	25.00
Chlorine mg/Kg	12/13/06	61.56	109	109

Comments

Madhu Shah

Madhu Shah, NGS Laboratory Supervisor

12/14/06

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

All the information contained in this report has been reviewed for accuracy and checked against all quality control requirements defined in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



Analysis Report

Sample Number 6838
Station Schiller
Date Received 12/11/06
As Fired 11/18/06
Air Drying Loss 45.97%

Report Date 12/14/06
Work Order 06-1987
Source Identification
Run # 2 & 3 Wood Chips

Proximate/Ulimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried
Moisture		45.97%		0.00%
Ash,%	12/12/06	1.72	3.19	3.19
BTU/Lb	12/12/06	4527	8400	8378
Sulfur, %	12/12/06 Less Than	0.03	0.05	0.05
Carbon,%	12/13/06	27.83	51.5	51.5
Hydrogen,%	12/13/06	3.26	6.04	6.04
Nitrogen,%	12/13/06	0.27	0.5	.500
Oxygen,%	12/13/06	20.95	38.77	38.77
Hg-Mercury Total ug/Kg	12/12/06 Less Than	13.51	25	25.00
Chlorine mg/Kg	12/13/06	121.04	224	224

Comments

Madhu Shah, NGS Laboratory Supervisor

12/14/06

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

The information contained in this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



Analysis Report

Sample Number 6839
Station Schiller
Date Received 12/11/06
As Fired 11/19/06
Air Drying Loss 46.81%

Report Date 12/14/06
Work Order 06-1987
Source Identification
Run # 1,2,3 Wood Chips

Proximate/Ulimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried.
Moisture		46.81%		0.00%
Ash,%	12/12/06	0.78	1.46	1.46
BTU/Lb	12/12/06	4372	8200	8219
Sulfur, %	12/12/06 Less Than	0.03	0.05	0.05
Carbon,%	12/13/06	27.07	50.9	50.9
Hydrogen,%	12/13/06	3.24	6.1	6.1
Nitrogen,%	12/13/06	0.22	0.42	0.42
Oxygen,%	12/13/06	21.87	41.12	41.12
Hg-Mercury Total ug/Kg	12/12/06 Less Than	13.3	25	25.00
Chlorine mg/Kg	12/13/06	115.96	218	218

Comments

Madhu Shah, NGS Laboratory Supervisor

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

The information contained in this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



Northeast
Generation Services

The Northeast Utilities System

Analysis Report

Northeast Generation Services
Analytical Laboratory
15 Agawam Avenue
West Springfield, MA 01089
Phone (413) 787-9064 Fax (413) 787-9056
email-shahmp@nu.com

Sample Number 6840
Station Schiller
Date Received 12/11/06
As Fired 11/27/06
Air Drying Loss 7.62%

Report Date 12/14/06
Work Order 06-1987
Source Identification
CEMS Testing Coal
A,B,C,D Comp.

Proximate/Ulimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried
Moisture		7.62%		0.00%
Ash,%	12/12/06	7.68	8.31	8.31
BTU/Lb	12/12/06	12568	13600	13610
Sulfur, %	12/12/06 Less Than	0.75	0.81	0.81
Carbon,%	12/13/06	75.2	81.4	81.4
Hydrogen,%	12/13/06	4.91	5.31	5.31
Nitrogen,%	12/13/06	1.53	1.66	1.66
Oxygen,%	12/13/06	2.32	2.51	2.51
Hg-Mercury Total ug/Kg	12/12/06	36.03	39	39.00
Chlorine mg/Kg	12/13/06	181.06	196	196

Comments

Madhu Shah, NGS Laboratory Supervisor

12/14/06

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

The information contained in this report has been reviewed for accuracy and checked against all quality control requirements outlined in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



Analysis Report

Sample Number 6841
Station Schiller
Date Received 12/11/06
As Fired 11/28/06
Air Drying Loss 7.87%

Report Date 12/14/06
Work Order 06-1987
Source Identification
CEMS Testing Coal
A,B,C,D Comp.

Proximate/Ultimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried
Moisture		7.87%		0.00%
Ash,%	12/12/06	7.53	8.17	8.17
BTU/Lb	12/12/06	12696	13800	13780
Sulfur, %	12/12/06	0.8	0.87	0.87
Carbon,%	12/14/06	74.99	81.4	81.4
Hydrogen,%	12/13/06	4.8	5.21	5.21
Nitrogen,%	12/13/06	1.47	1.6	1.6
Oxygen,%	12/14/06	2.53	2.75	2.75
Hg-Mercury Total ug/Kg	12/12/06	27.18	29.5	29.5
Chlorine mg/Kg	12/14/06	1.46	159	1.59

Comments

Madhu Shah, NGS Laboratory Supervisor

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

The information contained in this report has been reviewed for accuracy and checked against all quality control requirements lined in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



Northeast
Generation Services

The Northeast Utilities System

Analysis Report

Northeast Generation Services
Analytical Laboratory
15 Agawam Avenue
West Springfield, MA 01089
Phone (413) 787-9064 Fax (413) 787-9056
email-shahmp@nu.com

Sample Number 6842
Station Schiller
Date Received 12/11/06
As Fired 11/29/06
Air Drying Loss 7.59%

Report Date 12/14/06

Work Order 06-1987

Source Identification

CEMS Testing Coal
A,B,C,D Comp.

Proximate/Ulimate Analysis

Parameter	Date Tested	As Received	Dry	Air Dried
Moisture		7.59%		0.00%
Ash,%	12/12/06	8.04	8.7	8.7
BTU/Lb	12/12/06	12575	13600	13610
Sulfur, %	12/12/06	0.87	0.94	0.94
Carbon,%	12/14/06	73.46	79.5	79.5
Hydrogen,%	12/13/06	4.93	5.34	5.34
Nitrogen,%	12/13/06	1.45	1.57	1.57
Oxygen,%	12/14/06	3.65	3.95	3.95
Hg-Mercury Total ug/Kg	12/12/06	25.32	27.4	27.4
Chlorine mg/Kg	12/13/06	239.33	259	259

Comments

Madhu Shah, NGS Laboratory Supervisor

12/14/06

Date

Mass Certification - MA-00071
Conn Certification - PH-0520

The information contained in this report has been reviewed for accuracy and checked against all quality control requirements in each applicable method. This report may not be reproduced, except in full, without written approval from NGS Analytical Laboratory.



**Information Required for Permits for a Unit of Processing or
 Manufacturing Equipment**

AIR RESOURCES DIVISION

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

Device Description: Secondary Coal Crusher
 Date Construction Commenced: October 2004 Device Start-Up Date: May 2006
 Equipment Manufacturer: Pennsylvania Crusher Corporation
 Model Number: BC-15-44 FB Coalpactor Serial Number: 6914

A. Raw Materials Entering Process

Description	Actual Usage (lb/hr)	Maximum Usage (lb/hr)	Actual Usage (tons/yr)
Coal	700,000	TBD	TBD

B. Coatings and Solvents Entering Process *Not Applicable*

Description	Weight % of Solvent	Reason for Use	Actual Usage (lb/hr)	Maximum Usage (lb/hr)	Actual Usage (tons/yr)

C. Amount of Liquid Waste Discarded: *Not Applicable* gal/yr tons/yr

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 *Not Applicable*

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: *Not Applicable*

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

Method used to determine exiting emissions:

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

Description of Change: Project Description

Schiller Station, owned and operated by Public Service Company of New Hampshire (PSNH), is a fossil fuel-fired electric generating facility, capable of generating 153 net megawatts of electricity, located in Portsmouth, New Hampshire. Prior to the retirement/replacement of SR5 boiler, Schiller Station was comprised of three utility boilers, a combustion turbine, an emergency generator, a primary coal crusher and conveyor system, and the necessary support equipment to generate electricity.

In its application for a temporary permit, dated January 30, 2004, PSNH proposed the retirement of an existing 50-megawatt coal-fired boiler (Unit #5) and the construction and operation of a new, high-efficiency 50-megawatt wood-fired boiler. The fuel for the new SR5 boiler is primarily whole tree chips, but may also include untreated byproducts or residue from forest products manufacturing operations or from construction, stump grindings and ground pallets. The boiler also has the coal processing and handling equipment necessary to burn coal as a back up fuel in the event that PSNH's wood fuel becomes uneconomical or subject to a disruption in supply.

The SR5 boiler is equipped with emissions control equipment including a limestone injection system, a selective non-catalytic reduction (SNCR) system, and a fabric filtration system. The fuel handling system associated with SR5 also includes a secondary coal crusher and conveyor system and wood fuel storage yard and handling system. The existing electrical generating equipment, including the turbine and generator, was retained for use by the new SR5 boiler.

The new SR5 wood-fired boiler utilizes fluidized bed technology, which is recognized as a low emission, advanced solid fuel combustion technology. Fluidized bed combustion systems use a heated bed of sand-like material suspended (fluidized) within a rising column of air to burn many types of solid fuels. This technique results in a vast improvement in combustion efficiency of high moisture content fuels. The new SR5 boiler is also equipped with a natural gas-fired start-up burner system, required for preheating the furnace fluidized bed material prior to solid fuel firing.

Description of Emissions Resulting from Change

Fluidized bed combustion evolved from efforts to find a combustion process able to control emissions without the external emission control equipment necessary to control emissions from conventional boilers. Control of emissions in the combustion chamber is one of the major advantages over conventional boilers. Unlike conventional boilers, fluidized bed technology burns fuel at temperatures well below the threshold where nitrogen oxides form resulting in lower NO_x emissions. Sulfur emissions are also controlled inside the fluidized bed boiler by the introduction of a sulfur-absorbing chemical or sorbent into the boiler. The inherent design characteristics of the fluidized bed combustion technology result in lower emissions compared to conventional boiler technology.

The new SR5 boiler has resulted in important emissions reductions, relative to the former Unit #5 boiler, as a result of the wood fuel, fluidized bed technology, limestone injection, selective

non-catalytic reduction (SNCR), and fabric filtration system. The following table documents the emissions reductions calculated by comparing the maximum potential emissions from the new SR5 boiler and the actual emissions from the former Unit #5 boiler as contained in PSNH's application for temporary permit. The potential emissions from the new SR5 boiler were based on operating at maximum rated capacity for 8760 hours per year, while burning wood or coal, at Best Available Control Technology (BACT) level emission rates. The actual emissions from the former Unit #5 boiler were based on the annual average over the two-year period from September 2001 through August 2003.

Projected Emissions Change (tons per year)

	<u>TSP/ PM10</u>	<u>SO2</u>	<u>NOx</u>	<u>CO</u>	<u>VOC</u>	<u>H2SO4</u>
New SR5 Boiler	31.5	333.8	236.5	315.4	15.8	20.5
Former Unit #5 Boiler	113.2	1950.5	583.6	180.7	4.2	23.1
Net Increase/(Decrease)	(81.7)	(1616.7)	(347.1)	134.7	11.6	(2.6)

Title, Right, or Interest

PSNH's title, right, or interest to all of the property which is proposed for development or use for the project is contained in the following property deeds, all recorded in the Rockingham County Registry: Book 2024/Page 112, Book 2020/Page 281, Book 2035/Page 996 and Book 2053/Page 84.

New Applicable Requirements

1. Prevention of Significant Deterioration / New Source Review

The construction and installation of the SR5 boiler required PSNH to apply for and obtain a construction permit issued by the New Hampshire Department of Environmental Services, Air Resources Division (NHARD), in accordance with the NH Rules Governing the Control of Air Pollution. As part of the permit issuance process, PSNH complied with the additional review requirements specified in EPA's Prevention of Significant Deterioration (PSD) / New Source Review (NSR) program. PSD/NSR regulations have been adopted by NHARD and approved by EPA as part of the NH State Implementation Plan, resulting in NHARD having the authority to administer the program.

PSD/NSR requirements apply to new and modified sources located within "attainment areas", those areas where the air quality meets the national ambient air quality standards (NAAQS) promulgated in 40 CFR 52.21. The Portsmouth area is classified as a "serious" non-attainment area for ozone, but is designated as attainment or unclassified for all other criteria pollutants. As a fossil-fuel fired electric generating facility with heat input capacity greater than 250 MMBtu/hr, Schiller Station is classified as a major source since its current potential to emit of any regulated pollutant is greater than 100 tons per year. Existing major stationary sources are

subject to PSD/NSR requirements if the proposed emissions increases from a modification are “significant.” A significant emissions increase is one that exceeds specific thresholds assigned to each pollutant. If a modification results in an emissions increase above a significant threshold, the proposed change is classified as a “major modification” and must comply with additional review requirements specified under the PSD/NSR program.

The emissions increases associated with the new SR5 boiler for all regulated pollutants are below the corresponding significant thresholds, with the exception of carbon monoxide (CO). As such, the new SR5 boiler is classified as a major modification solely for carbon monoxide, the only emission increase above the significant threshold. As part of the attainment review requirements under the PSD/NSR regulations, the emissions from a major modification at an existing major source must meet Best Available Control Technology (BACT) levels for each pollutant for which the modification is determined to be major. BACT is an emissions limitation based on the maximum degree of reduction which is determined, on a case by case basis, to be achievable taking into consideration energy, environmental, and economic impacts.

As previously stated, the new SR5 boiler is considered a major modification solely due to the increase in CO emissions. As a result, only CO emissions from the new SR5 boiler are required to meet BACT levels. Although not required, emissions of sulfur dioxide (SO₂), oxides of nitrogen (NO_x), particulate matter (PM₁₀), and volatile organic compounds (VOC) from the new SR5 boiler also meet BACT levels for this type of boiler installation.

The following table summarizes the emission limits contained in the PSD permit for the construction / operation of the new SR5 boiler.

SR5 Boiler Emission Limits (lb/MMBtu)					
Fuel (Maximum Heat Input)	PM10	SO₂	NO_x	CO	VOC
Wood (720 MMBtu/hr)	0.01	0.02	0.075	0.1	0.005
Coal (635 MMBtu/hr)	0.01	0.12	0.075	0.1	0.005

Additionally, a major modification undergoing PSD/NSR review must include an ambient air quality analysis to analyze the impacts from the proposed operation on soils, vegetation, and visibility, and demonstrate that the emissions from the proposed modification will not adversely impact Class I areas. Class I areas are those areas with special national or regional natural, recreational, scenic, or historic value, such as national parks or designated wilderness areas. The depth of the ambient air quality analyses is dependent on the existing air quality and the quantity of emissions increases proposed.

2. New Source Performance Standards

The construction, installation, and operation of the new SR5 boiler is subject to the requirements of the New Source Performance Standards (NSPS) for Electric Steam Generating Units constructed after September 18, 1978 (40 CFR Part 60, Subpart Da). As a new Electric Steam Generating Unit, the new SR5 boiler is required to meet the emissions standards for SO₂, NO_x, PM, and Opacity, and to comply with the monitoring requirements for SO₂, NO_x, O₂ or CO₂, and Opacity. In addition, the coal handling processing and handling equipment is subject to the

NSPS for Coal Preparation Plants (40 CFR Part 60, Subpart Y) and is required to meet the particulate matter standards (20% opacity) established for coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems.

3. Maximum Achievable Control Technology

The construction, installation and operation of the new SR5 boiler is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: General Provisions and Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j) (40 CFR 63). Under Section 112 of the Clean Air Act Amendments of 1990, "major" industrial facilities that emit one or more of 188 listed hazardous air pollutants (HAP) are required to install stringent controls known as Maximum Achievable Control Technology (MACT). "Major" sources are those sources that have the potential to emit 10 tons per year or more of a single HAP or 25 tons per year or more of a combination of HAP. MACT is that level of control which is achieved by the best-controlled similar source. Based on conservative potential to emit estimates, the new SR5 boiler will have the potential to emit in excess of 25 tons of a combination of HAPs. In order to determine the level of control required, PSNH is required to undertake a case-by-case MACT determination.

4. Additional State and Federal Emission Standards

The new SR5 boiler is required to meet additional state and federal emission standards, as specified in the NH Rules Governing the Control of Air Pollution (Env-A 100 – 3300), including the following:

- a. Fuel Burning Devices: Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970 (Env-A 2003.02);
- b. Fuel Burning Devices: Particulate Emission Standards for Fuel Burning Devices Installed On or After January 1, 1985 (Env-A 2003.08);
- c. Nitrogen Oxides: Emissions Standards for Utility Boilers (Env-A 1211.03);
- d. Acid Deposition Control Program: Limitations on Individual Sources (Env-A 404.01).

Suggested Draft Permit Conditions

A PSD permit (TP-B-0501) containing PSD/NSR, NSPS, and MACT requirements, as well as additional state and federal emissions standards was issued by NHARD on October 25, 2004 and reissued on March 7, 2006. The permit is valid until April 30, 2007.

A proposed Title V permit (TV-OP-053) containing all applicable state and federal requirements, including emissions standards, for the operation of devices and processes at Schiller Station (including the previous Unit #5 boiler) was issued by NHARD on December 28, 2006.

Many of the permit conditions contained in TP-B-0501 and TV-OP-053 are identical, since the prior Unit #5 boiler was subject to many of the state and federal requirements that the new Unit #5 boiler is subject to. PSNH has identified these permit conditions, as well as those that could be streamlined in an amended Title V Operating Permit, in the enclosed table of Suggested Permit Conditions.

PSNH anticipates that all of the permit conditions contained in the Temporary PSD Permit, TP-B-0501, will be retained for inclusion in the amended Title V Operating Permit, TV-OP-053, with the exception of the Initial Compliance Demonstration Requirements contained in Table 6 and approximately half dozen requirements associated with initial start-up included in Tables 5 and 7. Those permit conditions that should not be retained for inclusion in the amended Title V Operating permit (or omitted) are also identified in the enclosed table. Similarly, there are conditions in the Title V Operating Permit that need to be revised since the new Schiller Unit #5 boiler may no longer be subject to all of the requirements that the previous boiler was. These permit conditions have also been identified in the enclosed table.

Air Dispersion Modeling

As part of the application process for a temporary permit, PSNH completed ambient air quality analyses for emissions of sulfur dioxide (SO₂), particulate matter (PM₁₀), and oxides of nitrogen (NO_x), in addition to CO, using AERMOD in order to demonstrate the positive environmental impacts associated with the retirement/replacement of SR5 boiler. Section V of PSNH's application for a temporary permit, previously submitted to NHARD on January 30, 2004, contains the procedures and conclusions of the air quality impact analyses.

At NHARD's request, the modeling analyses evaluated the combined emissions impacts from off-site sources including New Hampshire Air National Guard, PSNH Newington Station, Portsmouth Naval Shipyard, University of New Hampshire, Sea-3, Georgia Pacific, Newington Energy, Portsmouth Hospital, Lonza Biologics, and Phillips Exeter Academy.

A combination of screening and refined modeling demonstrates that the emissions from PSNH's proposed new wood-fired boiler, in conjunction with other emission sources at Schiller Station as well as off-site nearby sources, will not cause or contribute to a violation of NAAQS or PSD Increment Standards.

The ambient air quality analyses was updated on February 14, 2005 to incorporate revisions to the building locations and dimensions, and again on April 20, 2006 to incorporate the actual stack dimensions which were revised from the design information used in previous modeling. Both updates demonstrated compliance with NAAQS for all pollutants and averaging periods.

Additional Air Quality Impact Analyses

The following additional impact analyses were also conducted as required by 40 CFR 52.21(o):

- analysis of impacts on visibility, soils and vegetation;
- analysis of air quality impacts that may occur as a result of growth associated with the facility;
- assessment of impacts on Class I areas.

The modeling analyses demonstrated that PSNH Schiller Station meets National Ambient Air Quality Standards (NAAQS) and Increment Standards for Class I & II areas. The analyses further demonstrated that no adverse impacts on visibility, soils, and vegetation would occur. The analyses also concluded that minimal facility-related growth was expected for the project area as a result of general commercial, residential, and industrial growth.

In addition to the additional impact analyses conducted, mobile source modeling was conducted to evaluate the impact of mobile source emissions increase due to the anticipated additional 70 truck trips per day necessary for wood fuel deliveries to Schiller Station.

Lastly, ammonia (NH_3) emissions from the new SR5 boiler were evaluated to determine compliance with the ambient air limits established under Env-A 1400. This analysis concluded that the projected maximum ambient impact of NH_3 from the new SR5 stack will not exceed the ambient air limits. Consequently, the new SR5 boiler did not require a permit under the Env-A 1400 or Env-A 607.01(v).

Attached, please find an update to the applicable rules and regulations for the Title V facilities of PSNH. This list is a current list of all applicable State regulations based on a review of the New Hampshire Rules Governing the Control of Air Pollution as of January 29, 2007.

PSNH considered all Federal and State regulations in its Title V review. PSNH has cited applicable State regulations which are as stringent as or more stringent than the parallel Federal regulations. New Hampshire Env-A 611 adopts and incorporates the Federal Title IV Acid Rain Program. The original review of the State of New Hampshire Rules Governing the Control of Air Pollution and list of applicable regulations contained in PSNH's Title V permit application was performed using a copy of the rules effective December 13, 1995 obtained from the NHARD on May 6, 1996.

Following is the legend to be used for the Title V applicable rules table that is attached:

MK	The Merrimack Station Facility
NT	The Newington Station Facility
SCH	The Schiller Station Facility
MK1	The Merrimack Station Unit No. 1 Steam Boiler
MK2	The Merrimack Station Unit No. 2 Steam Boiler
MKCT1	The Merrimack Station Combustion Turbine No. 1
MKCT2	The Merrimack Station Combustion Turbine No. 2
MKEG	The Merrimack Station Emergency Generator
MKEB	The Merrimack Station Emergency Boiler
NT1	The Newington Station Unit No. 1 Steam Boiler
NTAB1	The Newington Station Auxiliary Boiler No. 1
NTAB2	The Newington Station Auxiliary Boiler No. 2
NTEG	The Newington Station Emergency Generator
SR4	The Schiller Station Unit No. 4 Steam Boiler
SR5	The Schiller Station Unit No. 5 Steam Boiler
SR6	The Schiller Station Unit No. 6 Steam Boiler
SRCT1	The Schiller Station Combustion Turbine No. 1
SREG	The Schiller Station Emergency Generator

Title V Applicable Rules and Regulations

<u>State of NH Rules</u>	<u>Pertains To</u>	<u>Affected Devices</u>
403	acid deposition	MK,NT,SCH
405	acid deposition	MK,NT,SCH
406	acid deposition	MK,NT,SCH
503.01(c)	New Source Performance Standards	SR5, MKEB
611	Title IV Acid Rain	MK1,MK2,NT1,SR4,SR5,SR6
612.02	operational flexibility	MK,NT,SCH
619	Prevention of Significant Deterioration	SR5
704.04	emission based fees	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, NT1NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT1,SREG
802	stack testing	MK1,MK2,MKCT1,MKCT2, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6 SRCT1
803	NOx RACT testing	MK1,MK2,MKCT1,MKCT2,NT1 NTAB1,NTAB2,NTEG,SR4,SR5,SR6 SRCT1
806	sulfur content testing	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6, SRCT1,SREG
807	testing for opacity	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6, SRCT1,SREG
808	CEM	MK1,MK2,NT1,SR4,SR5,SR6
902.01	record retention	MK,NT,SCH
903.03	recordkeeping for comb. devices	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6
903.04	recordkeeping for sources w/CEMs	MK1,MK2,NT1,SR4,SR5,SR6
905	recordkeeping for NOx generators	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6
906	NOx emission statements recordkeeping	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6
907	general reporting	MK,NT,SCH
909	NOx emission statements reporting	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB,NT1 NTAB1,NTAB2,NTEG,SR4,SR5,SR6
911	permit deviations	MK,NT,SCH
1205.04 - 1205.10	gasoline tanks (Phase I)	MK
1211.02	NOx RACT applicability	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB,NT1, NTAB1,NTAB2,NTEG,SR4,SR5,SR6, SRCT1,SREG
1211.03	NOx for utility boilers	MK1,MK2,NT1,SR4,SR5,SR6
1211.11	NOx for emergency gens	MKEG,NTEG,SREG
1211.12	NOx for aux boilers	NTAB1,NTAB2,MKEB,
1211.13	NOx for load shaving	MKCT1,MKCT2,SRCT1

Title V Applicable Rules and Regulations (cont.)

<u>State of NH Rules</u>	<u>Pertains To</u>	<u>Affected Devices</u>
1211.18	NOx bubble	MK1,MK2,MKCT1,MKCT2, MKEB, NT1,NTAB1,NTAB2, SR4,SR5,SR6,SRCT1
1211.20	seasonal controls	MK1,MK2,MKCT1,MKCT2, NT1,NTAB1,NTAB2, SR4,SR5,SR6,SRCT1
1211.21	NOx testing	MK1,MK2,MKCT1,MKCT2, , NT1,NTAB1,NTAB2, SR4,SR5,SR6,SRCT1
1211.22	NOx monitoring	MK1,MK2,NT1,SR4,SR5,SR6
1400	regulated toxic air pollutants	MK,NT,SCH
1604.01	sulfur in liquid fuel oil	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, NT1,NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT1
1605.01	sulfur in gaseous fuel	NT1,SR4,SR5,SR6,SRCT1,SREG
1606.01	sulfur in coal	MK1,MK2,SR4,SR5,SR6
1702.01	Application Forms	MK1,MK2,MKCT1,MKCT2,MKEG, MKEB, NT1,NTAB1,NTAB2,NTEG, , SR4,SR5,SR6SRCT1,SREG
1703.01	Form ARD-1	MK, NT, SCH
1704.01	Form ARD-2	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, , NT1,NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT1,SREG
1709.01	Info for Title V sources	MK,NT,SCH
1800	asbestos	MK,NT,SCH
2002.01	visible emissions standard	MK,MK2,MKCT1,MKCT2,MKEG, SR4,SR6,SRCT1,SREG
2002.02	visible emissions standard	NT1,NTAB1,NTAB2,NTEG,MKEB,SR5
2002.03	replacement of fuel burning device	SR5
2002.04	exemptions	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, NT1,NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT,SREG
2002.05	opacity	SR5
2002.06	particulate emissions	MK,MK2,MKCT1,MKCT2,MKEG, SR4, SR6,SRCT1,SREG
2002.07	particulate emissions	NTAB1,NTAB2,NTEG
2002.08	particulate emissions	SR5,MKEB
2002.10	compliance w/ particulate standards	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, NT1,NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT
2900	Multiple Pollutant Trading Program	MK1,MK2,NT1,SR4,SR6
3100	DERs	MK1,MK2,MKCT1,MKCT2,MKEG,MKEB, NT1,NTAB1,NTAB2,NTEG, SR4,SR5,SR6,SRCT,SREG
3200	NOx budget	MK1,MK2,NT1,SR4,SR5,SR6

Sculler Station - Amendment to Title V Application
 Suggested Draft Permit Conditions

	PSD Permit TP-B-0501		Title V Permit TV-OP-053	
	Table	Item #	Table	Item #
Duplicative Conditions	5	1	4	5
Contained in Both	5	2	4	1
PSD and Title V Permits	5	3	4	2
	5	4	4	3
	5	5	4	4
	5	6	4	6
	5	23	6	12
	5	24	6	26
	5	25	6	27
	5	26	6	28
	7	15	9	1
	7	16	9	2
	7	17	9	4
	7	18	9	29
	7	19	9	7
	7	21	9	9
	7	22	9	10
	7	23	9	11
	7	24	9	12
	7	25	9	13
	7	26	9	14
	7	27	9	15
	7	28	9	16
	7	29	9	17
	7	30	9	18
	7	35	9	37
	7	36	9	38
	7	37	9	39
	7	38	9	40
	7	39	9	41
	7	40	9	42
	7	41	9	43
	7	42	9	44
	7	43	9	45
	7	44	9	46
	7	45	9	47
	7	46	9	48
	7	48	9	50
	7	49	9	51
	7	50	9	52
	7	51	9	53
	7	52	9	54
	7	53	9	55
	7	54	9	56

Schiller Station - Amendment to Title V Application
 Suggested Draft Permit Conditions

	PSD Permit TP-B-0501		Title V Permit TV-OP-053	
	Table	Item #	Table	Item #
Duplicative Conditions	7	55	9	57
Contained in Both	7	57	9	61
PSD and Title V Permits	7	58	9	62
	7	59	9	63
	8	11	10	4
	8	12	10	5
	8	13	10	6
	8	14	10	7
	8	15	10	9
	8	16	10	11
	8	17	10	13
	8	18	10	14
	8	19	10	16
	8	20	10	17
	8	21	10	18
	9	16	11	14
	9	18	11	18
	9	20	11	1
	9	21	11	2
	9	22	11	3
	9	23	11	4
	9	24	11	5
	9	25	11	6
	9	26	11	7
	9	27	11	8
	9	28	11	9
	9	29	11	10
	9	30	11	11
	9	31	11	14
	9	32	11	16
	9	33	11	19
	9	34	11	21
	9	35	11	22
	9	36	11	23
	9	37	11	25

Schiller Station - Amendment to Title V Operating Permit
Suggested Draft Permit Conditions

	PSD Permit TP-B-0501		Title V Permit TV-OP-053	
	Table	Item #	Table	Item #
Addition / Amendment to TV-OP-053	5	9	6	8
	5	27	Alt. Operating Scenarios	
	7	2	9	16
	7	3	9	9
	7	5	9	1
	7	18	4	6
	7	31	9	19
	7	32	9	31

	Title V Permit TV-OP-053	
	Table	Item #
Amend to Omit SR5 as Applicable Emissions Unit	3	SR5-PC2
	6	2
	6	3
	6	6
	6	8
	6	9
	6	11
	9	6
	9	8
	9	19
	9	20
	9	21
	9	22
	9	25
	9	26
	10	2
	10	8
	10	15
	10	19.(H, I, J, L, M)
11	12	
11	17	
11	24	

	Title V Permit TV-OP-053	
Revise TV-OP-053 General Sections	Facility Description	Modify description to incorporate new SR5
	Alternate Operating Scenarios	Add SR5 SNCR and Limestone Injection System
	Multiple Pollutant Trading Program	Modify to exclude SR5 from Env-A 2900
	Annual SO2 Allowance Programs	Modify to exclude SR5 from Env-A 2900

Schiller Station - Amendment to Title V Operating Permit
Suggested Draft Permit Conditions

	PSD Permit TP-B-0501		Title V Permit TV-OP-053	
	Table	Item #	Table	Item #
Conditions	7	66	9	54
Contained in Both	7	68	9	16
to be Streamlined	8	6	10	4
	8	8	10	4
	8	10	10	4
	9	15	11	5

	PSD Permit TP-B-0501		Title V Permit TV-OP-053	
	Table	Item #	Table	Item #
Addition/Amend	5	9	6	8
to TV-OP-053	5	27	Alt. Operating Scenarios	
to incorporate	7	2	9	16
PSD condition	7	3	9	9
	7	5	9	1
	7	18	4	6
	7	31	9	19
	7	32	9	31

	PSD Permit TP-B-0501	
	Table	Item #
Omit	5	27.e.
PSD Conditions	5	28.j.
from TV-OP-053	5	29.h.
	5	33
	6	1 - 14
	7	47
	7	56

	Title V Permit TV-OP-053	
	Table	Item #
Amend TV-OP-053	1	SR5
to Reflect New SR5	1	
and Secondary CC	5	1-5
	6	25
	9	35
	9	36
	10	14
	10	19. P)
	11	13

Add new SR5 information
Add Secondary Coal Crusher
Add new SR5 information
Add Secondary Coal Crusher
Add Secondary Coal Crusher

Certification required under Env-A 612.06(c)(4) (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; and that *the proposed change to the facility meets the criteria for the use of the significant permit modification procedures*. 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.

Signed: 

Title: Vice President – Energy Delivery and Generation

Print name: John M. MacDonald Date: January 29, 2007