



babcock & wilcox nuclear operations group

• p.o. box 785 • lynchburg, va 24505-0785 usa • phone 434.522.6000
• www.babcock.com

April 22, 2013
13-040

ATTN: Document Control Desk
Director, Office of Nuclear Material Safety & Safeguards
U.S. Nuclear Regulatory Commission
Washington D.C. 20555-0001

Reference: License No. SNM-42, Docket 70-27

Subject: State Air Permit Modification

License Condition 1.5.9 of the referenced License Application requires the Babcock & Wilcox Nuclear Operations Group, Inc. Lynchburg (B&W NOG-L) facility to inform the Nuclear Regulatory Commission (NRC) when the state permitting agency issues violations or modifies the requirements of the State issued National Pollution Discharge Elimination System (NPDES) permit or air quality permit. As part of the 5 year renewal process, an updated air permit was recently issued to B&W NOG-L. A copy of the permit is included in this letter.

If you have any questions or require further information, please contact me at 434-522-6405.

Sincerely,

Charles A. England
Manager, Licensing & Safety Analysis
Babcock & Wilcox Nuclear Operations Group, Inc. Lynchburg

Enclosure

cc: NRC, Merritt Baker
NRC, Region II
NRC, Resident Inspector

NMSSD1

ENCLOSURE



COMMONWEALTH of VIRGINIA

David K. Paylor
Director

Douglas W. Domenech
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY

Blue Ridge Regional Office

www.deq.virginia.gov

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

April 8, 2013

Mr. Roger P. Cochrane
Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site
P. O. Box 785
Route 726, 1570 Mt. Athos Road
Lynchburg, VA 24505-0785

Location: Campbell County
Registration No.: 30260
CEDS Number: 51-031-0006

Dear Mr. Cochrane:

Attached is a permit to operate your facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the permits dated September 12, 1997, June 18, 2002, and June 4, 2007.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the application complete on February 5, 2013 and solicited written public comments by placing a newspaper advertisement in the The News & Advance on February 20, 2013. The thirty day comment period (provided for in 9 VAC 5-80-270) expired on March 22, 2013 with no comments having been received in this office.

This approval to operate does not relieve Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Mr. Roger P. Cochrane

April 8, 2013

Page 2

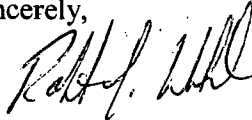
Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please call Keith Sandifer at 434-582-6232.

Sincerely,



Robert J. Weld
Regional Director

Attachment: Permit

cc: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Air Enforcement Branch (3AP12), U.S. EPA, Region III



COMMONWEALTH of VIRGINIA

Douglas W. Domenech
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office
www.deq.virginia.gov

David K. Paylor
Director

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site
Facility Name: Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site
Facility Location: 1570 Mt. Athos Road
Campbell County, Virginia
Registration Number: 30260
Permit Number: BRRO-30260

April 8, 2013
Effective Date

April 7, 2018
Expiration Date

Regional Director

April 8, 2013
Signature Date

Table of Contents, 4 pages
Permit Conditions, 47 pages

Table of Contents

I.	FACILITY INFORMATION.....	5
II.	EMISSION UNITS.....	6
III.	BOILERS –EU-B-1 AND EU-B-2	10
A.	LIMITATIONS	10
B.	PERIODIC MONITORING	10
C.	RECORDKEEPING	11
D.	REPORTING.....	11
IV.	BAKEOFF/REPLENISHING TANK - EU-10-10.....	11
A.	LIMITATIONS	11
B.	RECORDKEEPING	12
C.	TESTING.....	12
V.	URANIUM METAL DISSOLVERS EU-15A-1	12
A.	LIMITATIONS	12
B.	MONITORING	14
C.	PERIODIC MONITORING	14
D.	RECORDKEEPING	15
E.	TESTING.....	15
VI.	ROTARY CALCINER – EU-13A-3.....	16
A.	LIMITATIONS	16
B.	PERIODIC MONITORING	17
C.	RECORDKEEPING	17
D.	TESTING.....	18
E.	REPORTING	18
VII.	CRF 6" CENTORR FINISHING FURNACE – EU-13A-2 AND THERMOCRAFT VERTICAL TUBE FURNACES – EU-12A-3A AND EU-12A-3B	18
A.	LIMITATIONS	18
B.	PERIODIC MONITORING	19
C.	RECORDKEEPING	20
D.	TESTING.....	21
E.	REPORTING.....	21
VIII.	DYE CHECK ROOM – EU-8A-1	21
A.	RECORDKEEPING	21
IX.	GENERAL CLEANING OF METAL COMPONENTS – EU-FUGTV-1.....	21
A.	RECORDKEEPING	21
X.	PICKLING TANKS – EU-5A-1 TO EU-5A-6 AND EU-5A-8 TO EU-5A-16.....	22
A.	LIMITATIONS	22

B.	PERIODIC MONITORING	22
C.	RECORDKEEPING	23
XI.	PICKLING TANK – EU-10-9	23
A.	LIMITATIONS	23
B.	PERIODIC MONITORING	23
C.	RECORDKEEPING	24
XII.	DISSOLVERS EU-13A-1, EU-14A-1 TO EU-14A-4, EU-14A-17, AND U-14A-19.....	24
A.	LIMITATIONS	24
B.	PERIODIC MONITORING	25
C.	RECORDKEEPING	25
XIII.	EMERGENCY GENERATORS.....	26
A.	LIMITATIONS	26
B.	MONITORING	28
C.	RECORDKEEPING AND REPORTING.....	28
XIV.	NATIONAL EMISSIONS\STANDARDS FOR HAZARDOUS AIR POLLUTANT AREA SOURCE STANDARDS-FABRICATED METALS PRODUCTS – (MACT XXXXXX)	29
A.	COMPLIANCE DATE REQUIREMENT	29
B.	STANDARDS AND MANAGEMENT PRACTICES	29
C.	MONITORING	29
D.	NOTIFICATION, RECORDKEEPING, AND REPORTING REQUIREMENTS	29
E.	OTHER REQUIREMENTS	29
XV.	INSIGNIFICANT EMISSION UNITS.....	29
XVI.	PERMIT SHIELD & INAPPLICABLE REQUIREMENTS.....	37
XVII.	GENERAL CONDITIONS.....	38
A.	FEDERAL ENFORCEABILITY	38
B.	PERMIT EXPIRATION	38
C.	RECORDKEEPING AND REPORTING.....	39
D.	ANNUAL COMPLIANCE CERTIFICATION	40
E.	PERMIT DEVIATION REPORTING	41
F.	FAILURE/MALFUNCTION REPORTING	41
G.	SEVERABILITY	41
H.	DUTY TO COMPLY	42
I.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	42
J.	PERMIT MODIFICATION	42
K.	PROPERTY RIGHTS.....	42
L.	DUTY TO SUBMIT INFORMATION	42
M.	DUTY TO PAY PERMIT FEES.....	43
N.	FUGITIVE DUST EMISSION STANDARDS	43
O.	STARTUP, SHUTDOWN, AND MALFUNCTION	43
P.	ALTERNATIVE OPERATING SCENARIOS.....	44
Q.	INSPECTION AND ENTRY REQUIREMENTS	44

R.	REOPENING FOR CAUSE.....	44
S.	PERMIT AVAILABILITY	45
T.	TRANSFER OF PERMITS	45
U.	MALFUNCTION AS AN AFFIRMATIVE DEFENSE	45
V.	PERMIT REVOCATION OR TERMINATION FOR CAUSE	46
W.	DUTY TO SUPPLEMENT OR CORRECT APPLICATION	46
X.	STRATOSPHERIC OZONE PROTECTION	46
Y.	ASBESTOS REQUIREMENTS	47
Z.	ACCIDENTAL RELEASE PREVENTION	47
AA.	CHANGES TO PERMITS FOR EMISSIONS TRADING.....	47
BB.	EMISSIONS TRADING.....	47

I. Facility Information

Permittee

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site
P. O. Box 785
Route 726, 1570 Mt. Athos Road
Lynchburg, VA 24505-0785

Responsible Official

Joel Burch
General Manager

Facility

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site
P. O. Box 785
Route 726, 1570 Mt. Athos Road
Lynchburg, VA 24505-0785

Contact Person

Chris T. Terry
Manager Environmental Engineering
434-522-5202

County-Plant Identification Number: 51-031-0006

Facility Description: NAICS 332410 – The major activity at this facility is the production and assembly of unirradiated enriched uranium elements into nuclear reactors or fuel modules for power, propulsion, and research applications. This facility is primarily a metal fabricator, which involves the fabrication of metal components from stock metal through various machining process, welding, grinding, pickling, cleaning, and final assembly. Secondary to this is the recovery of uranium fuel, uranium downblending, and the research and development of uranium fuel manufacturing techniques. In addition, Babcock & Wilcox Nuclear Operations Group Inc operates nuclear environmental testing laboratories (SIC 8734) for both research and development and for commercial purposes. Support facilities at this facility include a steam plant, and a wastewater treatment plant.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
EU-B-01	VS-B-1	B&W Integral Furnace Co. Model/Type FM	26.5 MMBtu/hr	None	N/A	N/A	N/A
EU-B-02	VS-B-1	B&W Integral Furnace Co. Model/Type FM	26.5 MMBtu/hr	None	N/A	N/A	N/A
See Condition XIII	N/A	Emergency Generators	See Condition XIII	None	N/A	N/A	N/A
Acid Bake-off							
EU-10-10	VS-09-1	Acid Bake-off	5.1 gal/hr	Mikro-Pol 315 scrubber	PC-9-1	NOx, HF, and HCl	9/12/1997
Dissolvers							
EU-14A-17	VS-14A-1	Uranium fuel dissolver	0.55 kg/hr	Heil 739-P scrubber	PC-14A-1	NOx	Exemption letter, dated 7/8/1999
EU-14A-19	VS-14A-1	Uranium metal dissolver column	4 kg/batch	Heil 739-P scrubber	PC-14A-1	NOx	N/A
EU-13A-1, EU-14A-01 to EU-14A-04	VS-14A-1	Uranium recovery dissolvers	N/A	Heil 739-P scrubber	PC-14A-1	NOx & HF	N/A
EU-15A-01	VS-14A-4	4 Uranium metal dissolvers	20 kg/batch (each	Anderson 2000 Model WKH-1.4-2 2 stage ejector/scrubber	PC-14A-2 & PC-14A-3	NOx	10/28/1999 superseded 12/23/04

				system			
Rotary Calciner							
EU-13A-03	VS-13A-2	Rotary calciner	24 kg/hr of general scrap	A cyclone, an electric afterburner, a wet venturi scrubber, a mist eliminator system, and HEPA filter shall be used while processing general scrap	PC-13A-6 to PC-13A-10,	PM and visible emissions	June 18, 2002
Centorr Finishing Furnace							
EU-13A-02	VS-14A-3	CRF 6" Centorr finishing furnace	6.4 lb/hr	Packed column scrubber followed by a dry adsorber	PC-13A-12 and PC-13A-5	HCl	06/04/2007
Dye Checks							
EU-08A-01	VS-7A-1 & VS-7A-3	Dye Check Room	2.6 lb/hr	None	N/A	N/A	N/A
General Metal Cleaning							
EU-FGTV-1	Fugitive	General cleaning of metal components	N/A	N/A	N/A	N/A	N/A
Pickling Units							
EU-05A-01 to EU-05A-06 & EU-05A-07, EU-05A-08 to EU-05A-16	VS-05A-1	Pickling tanks (Bay 5A)	N/A	Emission units EU-5A-9 to EU-5A-16 controlled by a Ceilcote VCP-475 scrubber and a Heil7310-P scrubber in series. Scrubber effluent then merges with the remaining	PC-5A-1	NOx & HF	N/A

				emissions units and enters a Heil 7310-P scrubber.			
EU-10-09	VS-09-1	Pickling tank (Bay 10)	N/A	Mikro-Pol Model 315 scrubber	PC-9-1	NOx, HCl, & HF	N/A
Other							
EU-12A-3A and EU-12A-3B	VS-14A-3	Two 5" vertical tube furnaces by Thermcraft	3 liters of chlorine per minute	Packed column scrubber followed by a dry adsorber	PC-13A-12 and PC-13A-5	Hydrogen chloride	06/04/2007
EU-7A-17, EU-7A-16, EU-13-12, EU-7A-14, EU-7A-8, EU-7A-13, EU-7A-12, EU-7A-11, EU-7A-10, EU-7A-9, EU-7A-15, EU-13-17, EU-13-13, EU-13-11, EU-12-6, EU-12-7, EU-12-2, EU-03T-01, and EU-13-6	Various	Welding Equipment	NA	Various	NA		N/A
EU-07A-06		Dry Abrasive Blasting Equipment		Carborundum Baghouse	PC-7A-1		N/A
EU-01-01, EU-01A-13, EU-10A-01, EU-BC-03, EU-FF-01, EU-B1-01, EU-BC-06, EU-	Various	Emergency Generators and diesel fire pump engines	Various	NA	None	None	None

MM2-02, EU-AMB-01, EU-LL-05, EU-BD-04, EU-WT-01, EU-WT-02, and EU-DN-01							
---	--	--	--	--	--	--	--

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

III. Boilers –EU-B-1 and EU-B-2

Emission Unit ID	Regulated Pollutant	Limitation/Standard	Applicable Requirement
EU-B-1	PM	10.0 lb/hr	9 VAC 5- 40-900 A
EU-B-1	SO ₂	70.0 lb/hr	9 VAC 5- 40-930
EU-B-2	PM	10.0 lb/hr	9 VAC 5- 40-900 A
EU-B-2	SO ₂	70.0 lb/hr	9 VAC 5- 40-930

Note: PM=PM₁₀

A. Limitations

1. The approved fuels for the boilers are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396 “Standard Specification for Fuel Oils.” A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-110)
2. Visible Emissions from the boiler stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR 60 Appendix A). (9 VAC 5-40-80 and 9 VAC 5-80-110)
3. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. (9 VAC 5-80-110)

B. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from the B&W Integral Furnace boilers' stack (VS-B-1) shall be made. The presence of visible emissions shall require the permittee to:

1. take timely corrective action such that the boiler, with visible emissions, resumes operation with no visible emissions, or,
2. conduct a visible emission evaluation (VEE) on the boiler, with visible emissions, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the stack are 20 percent opacity or less. If any of the observations exceed the opacity limitation of 20%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the boiler resumes operation within the 20% opacity limit.

3. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a boiler stack observation log for each boiler to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the boiler(s) has not been operated for any period during the week, it shall be noted in the boiler log book.

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Blue Ridge Regional Office. These records shall include, but are not limited to:

- a. The annual throughput of natural gas (in million cubic feet) and distillate oil (in 1000 gallons) and the F-factor, pollutant-specific emission factors, and emission equations for the B&W boilers. The annual throughput shall be calculated on a calendar year basis.
- b. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 or 2.
- c. Results of the weekly visual observation of the boiler stack as specified in Condition III.B. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent (5) years.

(9 VAC 5-80-110)

D. Reporting

The requirements of Condition XVII.C of this permit apply.

(9 VAC 5-80-110)

IV. Bakeoff/replenishing tank - EU-10-10

A. Limitations

1. HF and HCl emissions from the bakeoff/replenishing tank shall be controlled by a scrubber. The scrubber shall be provided with adequate access for inspection. The scrubber shall be equipped with a flow meter and a device to continuously measure the differential pressure through the scrubber.

(9 VAC 5-80-110 and Condition 3 of 9/12/97 Permit)

2. The annual evaporation of spent acid solution shall not exceed 44,300 gallons, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 5 of 9/12/97 Permit)
3. If, for any reason, the permitted facility or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Blue Ridge Regional Office within four (4) business hours of the occurrence. The portion of the facility which is subject to the provision of Rule 6-4 (9 VAC 5-60-200 et seq.) or 6-5 (9 VAC 5-60-300 et seq.) (toxics) shall shut down immediately upon request of the DEQ. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shut down.
(9 VAC 5-80-110 and Condition 10 of 9/12/97 Permit)
4. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
 - b. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.

(9 VAC 5-80-110 and Condition 11 of 9/12/97 Permit)

B. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to the yearly evaporation of spent acid solution (in gallons), calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 7 of 9/12/97)

C. Testing

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 shall be provided at the appropriate locations.

(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 4 of 9/12/97 Permit)

V. Uranium Metal Dissolvers EU-15A-1

A. Limitations

1. Nitrogen oxide emissions from the uranium dissolvers (EU-15A-1) shall be controlled by a two-stage ejector/scrubber system. Nitric acid shall be used in the ejector stage

for uranium removal and sodium hydroxide in the scrubber stage for nitrogen oxide removal. The pH shall be controlled to less than 7 in the ejector for uranium removal. The scrubber pH shall be controlled within a range of 10 to 14. The ejector/scrubber system shall be provided with adequate access for inspection and shall be in operation when the dissolving process is operating.

(9 VAC 5-80-110 and Condition 3 of 12/23/04 Permit)

2. Visible emissions from the uranium dissolvers stack (VS-14A-4) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 7 of 12/23/04 Permit)
3. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum
 - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 13 of 12/23/04 Permit)

4. Combined emissions from the operation of the four uranium dissolvers (EU-15A-1) shall not exceed the limits specified below:

Nitrogen Oxides	13.6 lbs/hr	30 tons/yr
(as NO ₂)		

Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers V.A.1 and V.D. (9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 6 of 12/23/04 Permit)

B. Monitoring

1. The ejector/scrubber system shall be equipped with devices to continuously measure the ejector/scrubber liquid flow rate and the differential pressure drop across the ejector/scrubber and the ejector/scrubber liquid pH. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the dissolving process is operating.

(9 VAC 5-80-110 and Condition 4 of 12/23/04 Permit)

2. Each pressure drop meter used to continuously measure pressure drop, each liquid flow rate meter, and liquid pH meter shall be observed by the permittee with a frequency of not less than once per day to ensure good performance of the ejector/scrubber system. The permittee shall keep a log of the observations from each pressure drop meter.

(9 VAC 5-80-110 and Condition 5 of 12/23/04 Permit)

C. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from the uranium metal dissolvers (EU-15A-1) stack (VS-14A-4) shall be made. The presence of visible emissions shall require the permittee to:

- a. take timely corrective action such that the uranium metal dissolvers (EU-15A-1) resume operation with no visible emissions, or,
- b. conduct a visible emission evaluation (VEE) on the uranium metal dissolvers (EU-15A-1) stack, (VS-14A-4) in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the uranium metal dissolvers (EU-15A-1) are 20 percent opacity or less. If any of the observations exceed the opacity limitation of 20%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the uranium metal dissolvers (EU-15A-1) resume operation within the 20% opacity limit.

- c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the uranium metal dissolvers (EU-15A-1) have not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

D. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Blue Ridge Regional Office. These records shall include, but are not limited to:

1. Annual throughput of uranium, calculated monthly as the sum of each consecutive twelve (12) month period
2. The daily pH of the uranium ejector and scrubber liquids
3. Annual nitrogen dioxide emissions and emission equations, calculated monthly as the sum of each consecutive 12 month period.
4. Operation and control device monitoring records for the scrubber system.
5. Scheduled and unscheduled maintenance, and operator training.
6. Results of the weekly visual observation of the uranium metal dissolvers (EU-15A-1) stack as specified in Condition V.C. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 8 of 12/23/04 Permit)

E. Testing

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 shall be provided at the appropriate locations.

(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 9 of 12/23/04 Permit)

VI. Rotary Calciner – EU-13A-3

A. Limitations

1. Particulate emissions from the calciner (EU-13A-3) shall be controlled by a cyclone, an electric afterburner, a fixed throat venturi scrubber, and a mist eliminator system. The venturi scrubber shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of 6/18/2002 Permit)
2. The wet venturi scrubber shall be equipped with devices to continuously measure pressure drop. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the calciner is operating.
(9 VAC 5-80-110 and Condition 4 of 6/18/2002 Permit)
3. The calciner (EU-13A-3) shall process no more than 232 tons per year of general scrap, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 5 of 6/18/2002 Permit)
4. Visible emissions from the calciner stack (VS-13A-2) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 6 of 6/18/2002 Permit)
5. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Maintain an inventory of spare parts.
 - c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 12 of 6/18/2002 Permit)

B. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from the rotary calciner stack (VS-13A-2) shall be made. The presence of visible emissions shall require the permittee to:

1. take timely corrective action such that the rotary calciner (EU-13A-3) resumes operation with no visible emissions, or,
2. conduct a visible emission evaluation (VEE) on the rotary calciner stack, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the rotary calciner stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 per cent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the rotary calciner (EU-13A-3) resumes operation within the 5% opacity limit.
3. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the rotary calciner (EU-13A-3) has not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. Annual throughput of general scrap material, calculated monthly as the sum of each consecutive twelve (12) month period.
2. Results of the weekly visual observation of the rotary calciner (EU-13A-3) stack as specified in Condition VI.B. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 7 of 6/18/2002 Permit)

D. Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Test ports shall be provided at the appropriate locations.

(9 VAC 5-80-110 and Condition 8 of 6/18/2002 Permit)

E. Reporting

The permittee shall furnish notification to the Blue Ridge Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify Blue Ridge Regional Office in writing.

(9 VAC 5-80-110 and Condition 10 of 6/18/2002 Permit)

VII. CRF 6" Centorr Finishing Furnace – EU-13A-2 and ThermoCraft Vertical Tube Furnaces – EU-12A-3A and EU-12A-3B

A. Limitations

1. HCl emissions from the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) shall be controlled by a packed column scrubber (PC-13A-5), adsorber (PC-13A-12), and a HEPA filter (PC-13A-3). The scrubber, adsorber, and filter shall be provided with adequate access for inspection and shall be in operation when the furnaces are operating.

(9 VAC 5-80-110 and Condition 2 of 06/04/07 Permit)

2. The scrubber shall be equipped with devices to continuously measure the scrubber liquid flow rate and differential pressure drop across the scrubber. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the finishing furnaces are operating.

(9 VAC 5-80-110 and Condition 3 of 06/04/07 Permit)

3. Emissions from the operation of each of the two vertical tube furnaces (EU-12A-3A and EU-12A-3B) shall not exceed the limits specified below:

Hydrogen Chloride 0.01 lbs/hr (each)

(9 VAC 5-80-110 and Condition 4 of 06/04/07 Permit)

4. Emissions from the operation of the 6" Centorr finishing furnace (EU-13A-2) shall not exceed the limits specified below:

Hydrogen Chloride 0.05 lbs/hr

(9 VAC 5-80-110 and Condition 5 of 06/04/07 Permit)

5. Visible emissions from the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 6 of 06/04/07 Permit)

6. The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-80-110 and Condition 11 of 06/04/07 Permit)

7. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) and packed column scrubber (PC-13A-5), adsorber (PC-13A-12), and HEPA filter (PC-13A-3):

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition 12 of 06/04/07 Permit)

B. Periodic Monitoring

1. The flow meter and the pressure drop meter used to continuously measure pressure drop shall be observed by the permittee with a frequency of not less than once per day to ensure good performance of the scrubber. The permittee shall keep a log of the observations from the flow meter and the pressure drop meter.
(9 VAC 5-80-110)

2. At least one time per week an observation of the presence of visible emissions from the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) stack (VS-14A-3) shall be made. The presence of visible emissions shall require the permittee to:
 - a. take timely corrective action such that the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) resume operation with no visible emissions, or,
 - b. conduct a visible emission evaluation (VEE) on the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) stack (VS-14A-3), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) resume operation within the 5% opacity limit.
 - c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) have not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. Annual consumption of chlorine (in tons) in the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
2. Annual emissions of hydrogen chloride (in tons) from finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

3. Results of the weekly visual observation of the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) stack as specified in Condition VII.B. of this section, along with any corrective actions

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 7 of 06/04/07 Permit)

D. Testing

The finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided.

(9 VAC 5-50-30, 9 VAC 5-80-110, and Condition 8 of 06/04/07 Permit)

E. Reporting

The permittee shall furnish notification to the Blue Ridge Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Blue Ridge Regional Office in writing.

(9 VAC 5-80-110 and Condition 10 of 06/04/2007 Permit)

VIII. Dye Check Room – EU-8A-1

A. Recordkeeping

The permittee shall maintain records of all emission data. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to the annual throughput of volatile organic compound emissions. The permittee will keep records of the equations, certified product data sheets or equivalent references, emission equations, and all supporting documentation.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

IX. General Cleaning of Metal Components – EU-FUGTV-1

A. Recordkeeping

The permittee shall maintain records of all emission data. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to the yearly amount of cleaning materials used sufficient to calculate

volatile organic compound emissions on a calendar year basis. The permittee will keep records of the equations, certified product data sheets or equivalent references, emission equations, and all supporting documentation.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

X. Pickling Tanks – EU-5A-1 to EU-5A-6 and EU-5A-8 to EU-5A-16

A. Limitations

Visible emissions from the Bay 5A scrubber exhaust stack (VS-5A-1) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.

(9 VAC 5-40-80 and 9 VAC 5-80-110)

B. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from Bay 5A stack (VS-5A-1) shall be made. The presence of visible emissions shall require the permittee to:

1. take timely corrective action such that the pickling tanks, with visible emissions, resumes operation with no visible emissions, or,
2. conduct a visible emission evaluation (VEE) on Bay 5A stack, with visible emissions, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the are 20 percent opacity or less. If any of the observations exceed the opacity limitation of 20%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the pickle tanks resume operation within the 20% opacity limit.
3. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the pickling process has not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. Annual amount of material processed sufficient to calculate nitrogen dioxide and HF emissions on a calendar year basis. The permittee will keep records of the equations, certified product data sheets or equivalent references, emission equations, and all supporting documentation.
2. Results of the weekly visual observation of the Bay 5A scrubber exhaust stack (VS-5A-1) as specified in Condition X.B. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

XI. Pickling Tank – EU-10-9

A. Limitations

Visible emissions from the Bay 10 pickling process (EU-10-9) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.
(9 VAC 5-40-80 and 9 VAC 5-80-110)

B. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from the pickle exhaust stack (VS-9-1) shall be made. The presence of visible emissions shall require the permittee to:

1. take timely corrective action such that the pickling tank, with visible emissions, resumes operation with no visible emissions, or,
2. conduct a visible emission evaluation (VEE) on the Bay 10 pickle stack (VS-9-1), with visible emissions, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the are 20 percent opacity or less. If any of the observations exceed the opacity limitation of 20%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the Bay 10 pickling process (EU-10-9) resumes operation within the 20% opacity limit.

3. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the picking process has not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. the annual amount of material processed sufficient to calculate nitrogen dioxide and HF emissions on a calendar year basis. The permittee will keep records of the equations, certified product data sheets or equivalent references, emission equations, and all supporting documentation.
2. Results of the weekly visual observation of the pickling tank stack (VS-9-1) as specified in Condition XI.B. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

XII. Dissolvers EU-13A-1, EU-14A-1 to EU-14A-4, EU-14A-17, and U-14A-19

A. Limitations

1. Visible emissions from the dissolvers stack (VS-14A-1) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity when dissolver equipment EU-14A-17 and EU-14A-19 are operating.
(9 VAC 5-50-80 and 9 VAC 5-80-110)
2. Visible emissions from the dissolvers stack (VS-14A-1) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity when dissolver equipment EU-13A-1, and EU-14A-1 to EU-14A-4 are operating.
(9 VAC 5-40-80 and 9 VAC 5-80-110)

B. Periodic Monitoring

At least one time per week an observation of the presence of visible emissions from the dissolvers exhaust stack (VS-14A-1) shall be made. The presence of visible emissions shall require the permittee to:

1. Take timely corrective action such that the dissolvers, with visible emissions, resumes operation with no visible emissions, or,
2. Conduct a visible emission evaluation (VEE) on the dissolvers stack (VS-14A-1), with visible emissions, in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the are 20 percent opacity or less. If any of the observations exceed the opacity limitation of 20%, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the dissolvers resume operation within the 20% opacity limit.
3. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a stack observation log for the stack to demonstrate compliance. The logs shall include the date and time of the observations, the name of the observer, whether or not there were visible emissions, the results of all VEEs, and any necessary corrective action. If the dissolvers have not been operated during the week, it shall be noted in the log book and that a visual observation was not required.

(9 VAC 5-80-110 E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. The monthly and yearly amount of uranium processed and emission equations, sufficient to calculate nitrogen dioxide and HF emissions. Yearly nitrogen dioxide and HF emissions shall be calculated monthly as the sum of each consecutive 12 month period.
2. Results of the weekly visual observation of the dissolvers stack (VS-14A-1) as specified in Condition XII.B. of this section, along with any corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

XIII. Emergency Generators

Unit ID	Date of Manufacture	Date of Installation	Rated Capacity (kW)	Rated Capacity (hp)	Applicable Federal Requirements
Group 1					
EU-01-01	1982	1982	370	503	40-CFR 63 Subpart ZZZZ
EU-01A-13	2004	2004	450	685	40-CFR 63 Subpart ZZZZ
EU-10A-01	2003	2003	400	535	40-CFR 63 Subpart ZZZZ
Group 2					
EU-BC-03	2010	2012	800	1214	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ
EU-FF-01	2010	2010	800	1214	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ
Group 3					
EU-B1-01	2002	2002	200	325	40-CFR 63 Subpart ZZZZ
EU-BC-06	1988	1988	150	230	40-CFR 63 Subpart ZZZZ
EU-MM2-02	1980	1980	200	235	40-CFR 63 Subpart ZZZZ
EU-AMB-01	2005	2005	100	166	40-CFR 63 Subpart ZZZZ
EU-LL-05	3/22/2006	2006	200	325	40-CFR 63 Subpart ZZZZ
EU-BD-04	2001	2001	188	219	40-CFR 63 Subpart ZZZZ
EU-WT-01	2/1977	<1998	Fire Pump	310	40-CFR 63 Subpart ZZZZ
EU-WT-02	7/1975	<1998	Fire Pump	310	40-CFR 63 Subpart ZZZZ
Group 4					
EU-DN-01	2011	2012	450	689	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ

A. Limitations

- Except where this permit is more restrictive than the applicable requirement the emergency generator compression ignition engines in Groups 2 and 4 shall be operated in compliance with requirements of 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
(9 VAC 5-80-110)
- Emergency generator compression ignition engines in Groups 2 and 4 in the table shall be in compliance with 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
 - Emissions limitations as specified in 40 CFR 60.4202 and 60.4205;
 - Fuel requirements specified in 40 CFR 60.4207;

- c. Monitoring, installation, collection, operation, and maintenance requirements as specified in 40 CFR 60.4208 and 60.4209;
 - d. Continuous compliance requirements as specified in 40CFR 60.4211;
 - e. Notification, recordkeeping, and reporting requirements as specified in 40 CFR 60.4214, Table 5;
 - f. Requirements of the General Provisions listed in 40 CFR 60 Subpart A as specified in 60.4218, Table 8.
(9 VAC 5-80-110 and 40 CFR 60 Subpart IIII)
3. Except where this permit is more restrictive than the applicable requirement the emergency generator compression ignition engines shall be operated in compliance with requirements of 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
(9 VAC 5-80-110)
4. All existing emergency generators and fire pump compression ignition engines (Groups 1 and 3) shall be in compliance with 40 CFR 63, Subpart ZZZZ by October 19, 2013. These units shall comply with the applicable:
- a. Emissions limitations as specified in 40 CFR 63.6603, Table 2d;
 - b. Monitoring, installation, collection, operation, and maintenance requirements as specified in 40 CFR 63.6625(e), (f), (h) and (i);
 - c. Continuous compliance requirements as specified in 40 CFR 63.6605 and 63.6640;
 - d. Recordkeeping requirements as specified in 40 CFR 63.6655 (except 63.6655(c));
 - e. Requirements of the General Provisions listed in 40 CFR 63 Subpart A, except per 63.6645(a)(5). The following do not apply: 63.7(b) and (c), 63.8(e), (f) and (f)(6), and 63.9(b)-(e), (g) and (h).

(9 VAC 5-80-110 and 40 CFR 63)
5. All new emergency compression ignition generators (Groups 2 and 4) shall show compliance with 40 CFR Part 63, Subpart ZZZZ by demonstrating compliance with 40 CFR Part 60, Subpart IIII. See Condition XIII.A.2
(9 VAC 5-80-110 and 40 CFR 63, Subpart ZZZZ)
6. Visible emissions from the emergency generator stacks shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity when the emergency generators are operating. This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

B. Monitoring

1. The permittee shall perform periodic visual evaluations of each stack from each of the internal combustion engines (Groups 1 – 4) according to the schedule in Condition B2 for compliance with the opacity limits listed in Condition XIII.A.6. If such periodic evaluations indicate any opacity $\geq 20\%$ observed by a Method 9 certified visible emissions evaluator, the permittee shall take appropriate action to correct the cause of the excess opacity such that visible emissions do not exceed established limits. If such corrective action fails to correct the problem, the permittee shall conduct a visible emissions evaluation (VEE) utilizing EPA Method 9 (reference 40 CFR 60, Appendix A). The permittee shall record the details of the visual emissions observations, VEE, and any corrective actions.
(9 VAC 5-80-110)

2. Periodic visual evaluations to be conducted according to the following operation frequency guidelines:

Operating Schedule	Observation Frequency
>50 hrs/calendar month	Quarterly
<50hrs/calendar month > 50 hrs/yr	Annually
<50 hrs/yr	No Evaluation Required

(9 VAC 5-80-110)

3. NSPS IIII monitoring shall be performed in accordance with Conditions XIII.A.1 and XIII.A.2.
(9 VAC 5-80-110)
4. MACT ZZZZ monitoring shall be performed in accordance with Conditions XIII.A.3 to XIII.A.5.
(9 VAC 5-80-110)

C. Recordkeeping and Reporting

The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Blue Ridge Regional Office. These records shall include, but are not limited to:

1. Results of the visual observation of the emergency generator stacks as specified in Conditions XIII.B.1 and XIII.B.2 of this section, along with any corrective actions.
2. NSPS IIII recordkeeping and reporting shall be performed in accordance with Conditions XIII.A.1 and XIII.A.2
3. MACT ZZZZ recordkeeping and reporting shall be performed in accordance with Conditions XIII.A.3 to XIII.A.5

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110)

XIV. National Emissions\Standards for Hazardous Air Pollutant Area Source Standards-Fabricated Metals Products – (MACT XXXXXX)

A. Compliance Date Requirement

The permittee shall achieve compliance with the applicable provisions of 40 CFR 63 Subpart XXXXXX by the compliance date specified in §63.11515 of this Subpart for existing fabricated metal products manufacturing equipment.

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 subpart XXXXXX)

B. Standards and Management Practices

Except where this permit is more restrictive the fabricated metal products manufacturing equipment shall comply with the standards and management practices as specified in §63.11516 of 40 CFR 63 Subpart XXXXXX.

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 subpart XXXXXX)

C. Monitoring

Except where this permit is more restrictive the fabricated metal products manufacturing equipment shall comply with the monitoring requirements as specified in §63.11517 of 40 CFR 63 Subpart XXXXXX.

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 subpart XXXXXX)

D. Notification, Recordkeeping, and Reporting Requirements

Except where this permit is more restrictive the fabricated metal products manufacturing equipment shall comply with the notification, recordkeeping, and reporting requirements as specified in §63.11519 of 40 CFR 63 Subpart XXXXXX.

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 subpart XXXXXX)

E. Other Requirements

Except where this permit is more restrictive the fabricated metal products manufacturing equipment shall comply with the applicable definitions and general provisions of Subpart A as specified in §63.11522 and 63.11523 of 40 CFR 63 Subpart XXXXXX

(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110 and 40 CFR 63 subpart XXXXXX)

XV. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-1A-9	Pickle Tank	5-80-720 B.1. & B.5.	NOx & HF	

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-1A-10	Cleaning Tanks	5-80-720 B.2.	VOC	
EU-1A-11	Metallurgical Laboratory	5-80-720 B.1	PM ₁₀	
EU-2A-3	Product Evac Sys and Res Process Box	5-80-720 B.2.	VOC	
EU-2A-4	Tack Welder	5-80-720 B.1.	PM ₁₀	
EU-2A-5	Tack Welder	5-80-720 B.1.	PM ₁₀	
EU-3A-1	Electric Furnace	5-80-720 B.2.	VOC	
EU-3A-2	Electric Furnace	5-80-720 B.2.	VOC	
EU-3A-3	Evaporation Hood	5-80-720 B.2.	VOC	
EU-3A-5	Machine Tool Grinder	5-80-720 B.1.	PM	
EU-3A-6	Evaporation Hood	5-80-720 B.2.	VOC	
EU-5A-7	Pickle Tank	5-80-720 B.1.	NO _x	
EU-11-8	Pickle Tank	5-80-720 B.1.	NO _x	
EU-6-1	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-2	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-3	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-4	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-5	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-6	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-7	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-8	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-9	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-10	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-6-11	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6-12	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM ₁₀ , Chromium, Nickel, & Cobalt	
EU-6A-1	Proceco Washer	5-80-720 A.38		
EU-7A-1	Cleaning Tables	5-80-720 B.1	PM10	
EU-7A-2	Proceco Washer	5-80-720 A.38		
EU-7A-3	Vapor Blast Machine (SM-5141)	5-80-720 B.1.	PM10	
EU-7A-4	Vapor Blast Machine (SM-5140)	5-80-720 B.1.	PM10	
EU-7A-6	Blast Cleaner	5-80-720 B.1.	PM10	
EU-7A-7	Copper Polishing Machine	5-80-720 B.1.	PM10	
EU-8-1	Handwork Station	5-80-720 B.1. & B.5.	PM10, Chromium, & Cobalt	
EU-8-2	Handwork Station	5-80-720 B.1. & B.5.	PM10, Chromium, & Cobalt	
EU-8-3	Handwork Station	5-80-720 B.1. & B.5.	PM10, Chromium, & Cobalt	
EU-8-4	Proceco Washer	5-80-720 A.38		
EU-8A-2	Dye Check-Zyglo Penetrant & Soap	5-80-720 B.2.	VOC	
EU-8A-3	Dye Check - Zyglo Developer	5-80-720 B.2.	VOC	
EU-9A-1	Soil Vapor Extraction System	5-80-720 B.1.	Trichloroethylene	
EU-10-7	CO2 Blast Chamber	5-80-720 B.1	PM10	
EU-10-8	Acid Activation Tank	5-80-720 B.5	HCl, HF	
EU-10-11	Acid Holding Tank	5-80-720 B.5	HCl, HF	
EU-10-12	Acid Rinse Tank	5-80-720 B.5	HCl, HF	
EU-10-13	Cleaning Tank	5-80-720 B.2.	VOC	
EU-10-14	Detergent Wash Tank	5-80-720 B.2.	VOC	
EU-12-4	Handwork Station	5-80-720 B.1. & B.5.	PM10, Chromium, & Cobalt	
EU-12-5	Dye Check	5-80-720 B.1.	VOC	
EU-12A-1	Chemistry Lab	5-80-720 A.28.		
EU-13-5	EB Welder (SM-2141)	5-80-720 B.1.	PM10	
EU-13-15	Handwork Station	5-80-720 B.1. & B.5.	PM10, Chromium, & Cobalt	
EU-13A-4	6" Furnace	5-80-720 B.1.	NOx	
EU-13A-5	Calciner	5-80-720 B.1.	PM10	

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site

Permit Number: BRRO-30260

Effective Date: April 8, 2013

Page 32

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-13A-8	2.5" Furnace	5-80-720 B.1.	PM10	
EU-13A-9	Chemical Processing Hoods	5-80-720 B.5.	VOC	
EU-14A-9	Hydrofluoric Acid Storage Bldg.	5-80-720 B.5.	HF	
EU-14A-10	Drum Dryer Recovery	5-80-720 B.1.	PM10 and NOx	
EU-14A-11	Chemical Conversion Hoods	5-80-720 B.1.	PM10 and NOx	
EU-14A-13	Jaw Crusher	5-80-720 B.1. & B.5.	PM10	
EU-14A-14	Pump Repair Hood	5-80-720 B.1.	PM10	
EU-14A-15	Pump Repair Hood	5-80-720 B.1.	PM10	
EU-14A-20	HEU Oxide Dissolver	5-80-720 B.1.	NOx	
EU-14A-21	A/B Area Hoods	5-80-720 B.1.	PM10	
EU-14A-22	HF Storage Tank	5-80-720 B.5.	HF	
EU-14A-23	Centrifugal Contactor Enclosure	5-80-720 B.1.	NOx	
EU-15-2	Assembly Fixture	5-80-720 B.1.	PM10	
EU-15-4	Pickle Line	5-80-720 B.1.	NOx	
EU-15-5	Nitric Acid Pickle Line	5-80-720 B.1. & B.5.	NOx	
EU-15-6	HF/Nitric Pickle Line	5-80-720 B.1. & B.5.	NOx & HF	
EU-15-7	Nitric Acid Etching Line	5-80-720 B.1.	NOx	
EU-15-8	Proceco Washer	5-80-720 A.38.		
EU-15-9	Aluminum Handwork Table	5-80-720 B.1.	PM10	
EU-15-10	Lab Hood	5-80-720 B.1.	PM10	
EU-15-11	Lab Hood	5-80-720 B.1.	PM10	
EU-15-15	Arcmelter	5-80-720 B.1.	PM10	
EU-15-16	Arcmelter	5-80-720 B.1.	PM10	
EU-15-17	Arcmelter	5-80-720 B.1.	PM10	
EU-15A-2	Blend Stock Dissolver	5-80-720 B.1.	NOx	
EU-15A-3	Drum Dryer	5-80-720 B.1.	PM10	
EU-17-2	Evaporation Hood	5-80-720 B.2.	VOC	
EU-B-4	Dejacketing Machine	5-80-720 B.1.	PM10	
EU-B-5	Dejacketing Machine	5-80-720 B.1.	PM10	
EU-B-6	Dejacketing Machine	5-80-720 B.1.	PM10	
EU-BA-1	Boiler (existing NG fired)	5-80-720 C.2.b.		0.67 MMBtu/hr
EU-BB-1	Radiochemistry Lab	5080-720 B.2.	VOC	
EU-BB-6	Boiler	5-80-720 C.2.b.		1.5 MMBtu/hr

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site

Permit Number: BRRO-30260

Effective Date: April 8, 2013

Page 33

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-BB-3	Gas Fired Roof Top Heater	5-80-720 C.2.a.		0.99 MMBtu/hr
EU-BB-4	Lab Hoods Rooms 600	5-80-720 B.2.	VOC	
EU-BB-5	Building B Labs	5-80-720 B.2.	VOC	
EU-BC-2	Gas Fired Kiln (Ceramics)	5-80-720 C.2.a.		6.0 MMBtu/hr
EU-BD-1	Lab Hoods-Room 446	5-80-720 B.2. & B.5.	VOC	
EU-BD-2	Lab Hoods-Room 434	5-80-720 B.2. & B.5.	VOC	
EU-E-1	LLR Retention Tanks	5-80-720 B.1. & B.5.	NOx & HF	
EU-E-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-E-3	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-EQ-1	Diesel Fuel Heater #1	5-80-720 C.2.b.		0.14 MMBtu/hr
EU-EQ-2	LLR Equalization Tanks	5-80-720 B.1. & B.5.	NOx & HF	
EU-EQ-3	2 Pickle Acid Equalization Tanks	5-80-720 B.1.	NOx & HF	
EU-EQ-4	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-FGTV-02	General Spray Can Painting	5-80-720 B.2.	VOC	
EU-G-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-L-1	Oil, Solvent, and Raw Material Storage	5-80-720 B.2.	VOC	
EU-LB-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-LL-1	Supercompactor Cell & Multipurpose Room	5-80-720 B.2.	VOC	
EU-LL-2	Gas Fired Clothes Dryer	5-80-720 C.2.a.		0.12 MMBtu/hr
EU-LL-3	Gas Fired Clothes Dryer	5-80-720 C.2.a.		0.12 MMBtu/hr
EU-LL-4	Gas Fired Clothes Dryer	5-80-720 C.2.a.		0.12 MMBtu/hr
EU-MM1-4	Plasma Cutter (SAP10004587)	5-80-720 B.1.	PM10	
EU-MM1-5	Plasma Cutter (SM-5524)	5-80-720 B.1.	PM10	
EU-MM1-6	Pedestal Grinder (SM-5276)	5-80-720 B.1.	PM10	
EU-MM1-7	Pedestal Grinder (SM-5277)	5-80-720 B.1.	PM10	
EU-MM1-8	Plasma Cutter	5-80-720 B.1.	PM10	
EU-MM1-14	Paint Booth	5-80-720 B.1 & 2.	VOC & PM10	
EU-MM2-1	Proceco Washer	5-80-720 A.38		

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-S-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-3	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-4	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-5	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-6	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-7	Gas Fired Unit Heater	5-80-720 C.2.a.		0.4 MMBtu/hr
EU-S-8	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-S-9	Gas Fired Unit Heater	5-80-720 C.2.a.		0.2 MMBtu/hr
EU-S-10	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-SR-01	Gas Fired Unit Heater	5-80-720 C.2.a.		0.105 MMBtu/hr
EU-SR-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.105 MMBtu/hr
EU-SRN-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-SRN-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-SRN-3	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-SRN-4	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-SRN-5	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-SRN-6	Gas Fired Unit Heater	5-80-720 C.2.a.		0.075 MMBtu/hr
EU-TANK-4	Recycling Operations Used Oil Tank	5-80-720 B.2.	VOC	
EU-TANK-5	Recycling Operations Used Oil Tank	5-80-720 B.2.	VOC	
EU-TANK-6	12,000 gal. Copper Nitrate Tank	5-80-720 B.1.	NOx	
EU-TANK-100	Range Road Gasoline Tank	5-80-720 B.2.	VOC	
EU-TANK-24	3,000 gal. Sulfuric Acid Tank	5-80-720 B.1.	PM10	
EU-TANK-25	12,000 gal. Aluminum Nitrate Tank	5-80-720 B.1.	NOx	
EU-TANK-63	Tank Farm Macron Oil Tank #1	5-80-720 B.2.	VOC	
EU-TANK-64	Tank Farm Macron Oil Tank #2	5-80-720 B.2.	VOC	
EU-TANK-66	5,000 gal. Nitric Acid Tank	5-80-720 B.1.	NOx	
EU-TANK-67	5,000 gal. Nitric Acid Tank	5-80-720 B.1.	NOx	
EU-TANK-71	Emergency Team Building Convault	5-80-720 B.2.	VOC	
EU-TANK-72	Bay 1 Diesel Fuel Convault	5-80-720 B.2.	VOC	

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site

Permit Number: BRRO-30260

Effective Date: April 8, 2013

Page 35

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-TANK-73	Diesel Fuel Convault	5-80-720 B.2.	VOC	
EU-TANK-77	5000 gal. Used Trim-sol Tank	5-80-720 B.2.	VOC	
EU-TANK-78	5000 gal. Oil/Water Tank	5-80-720 B.2.	VOC	
EU-TANK-79	1000 gal. Oil/Water Tank	5-80-720 B.2.	VOC	
EU-TANK-81	Range Road Gasoline Tank	5-80-720 B.2.	VOC	
EU-TANK-82	Range Road Diesel Fuel Tank	5-80-720 B.2.	VOC	
EU-TANK-88	WT Gasoline Convault	5-80-720 B.2.	VOC	
EU-TANK-90	Range Road Kerosene Tank	5-80-720 B.2.	VOC	
EU-TANK-91	12,000 gal Fuel Oil Tank	5-80-720 B.2.	VOC	
EU-TANK-92	12,000 gal Fuel Oil Tank	5-80-720 B.2.	VOC	
EU-TANK-93	1,000 gal Fuel Oil Tank	5-80-720 B.2.	VOC	
EU-TANK-95	Diesel Fuel Tank	5-80-720 B.2.	VOC	
EU-TANK-99	Range Road Gasoline Tank	5-80-720 B.2.	VOC	
EU-U-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-U-3	Gas Fired Unit Heater#2	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-U-4	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-U-5	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-U-6	Hammermill Boiler water heater (SM-4354)	5-80-720 C.2.a.		0.775 MMBtu/hr
EU-V1-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-V1-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-V2-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-V2-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.3 MMBtu/hr
EU-VEP-1	VEP System Scrubber	5-80-720 B.5.	Trichloroethylene	
EU-VEP-5	Emergency Generator	5-80-720 C.1.a.		250 Hp (gasoline)
EU-W-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.105 MMBtu/hr
EU-W-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.105 MMBtu/hr
EU-W-4	LLR Sludge Drying System	5-80-720 C.2.a.		0.48 MMBtu/hr each

Babcock & Wilcox Nuclear Operations Group Inc. – Mt. Athos Site

Permit Number: BRRO-30260

Effective Date: April 8, 2013

Page 36

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-WL-1	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-WL-2	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-WT-3	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-WT-4	Gas Fired Unit Heater	5-80-720 C.2.a.		0.05 MMBtu/hr
EU-WT-5	Gas Fired Unit Heater	5-80-720 C.2.a.		0.03 MMBtu/hr
EU-1A-14, EU-1A-16, EU-15-12, EU-15-13, EU-1A-3, EU-1A-4, EU-1A-5, EU-1A-8, EU-1A-12, EU-4A-1, EU-4A-2, EU-4A-4, EU-4A-5, EU-9-2, EU-15-1, EU-B-3, EU-MM1-2, EU-MM1-9, EU-U-10, EU-U-13, EU-MM1-3, EU-16-3, EU-16-2, EU-16-1, EU-11-4, EU-11-3, EU-11-2, EU-11-1, EU-14A-5, EU-14A-8, EU-9-1, EU-12-1, and EU-14A-6	Various Welders	5-80-720 B.1.	PM10	
EU-14-1, EU-14-2, EU-14-3, EU-14A-7,	Various Grinding Equipment	5-80-720 B.1.	PM10	

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
EU-16-4, EU-U-11, EU-U-12, EU-U-14, EU-2-3, EU-4-6, EU-4-11, EU-4-12, EU-4-1, EU-4-7, EU-4-10, EU-4-3, EU-4-5, EU-4-9, EU-4-8, EU-4-2, EU-4-4, EU-2-2, EU-2-1, and EU-13-2				

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

XVI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 63.7881	40 CFR 63 Subpart GGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation	B&W is not a major HAP source.
40 CFR 63.11514 (b)(4)	40 CFR 63 Subpart HHHHHH National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	B&W is subject to Subpart XXXXXX, therefore not subject to Subpart HHHHHH
40 CFR 63.11195 (e)	40 CFR 63 Subpart JJJJJJ National Emission Standards for Hazardous	The boiler s burn only natural gas with liquid fuel only during gas curtailment

	Air Pollutants: Commercial, and Institutional Boilers Area Sources	or testing.
40 CFR 63.7485	40 CFR 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	B&W is not a major source for HAPs
40 CFR 60.40c (a)	40 CFR 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Boilers were constructed before June 9, 1989.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

XVII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement.
(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year.

This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.
7. One copy of the annual compliance certification shall be sent to EPA at the following electronic mailing address:

R3 APD Permits@epa.gov

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Blue Ridge Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XVII.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Blue Ridge Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Blue Ridge Regional Office.

(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

- d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Babcock & Wilcox Nuclear Operations Group Inc. - Mt Athos Site
Campbell County, Virginia
Permit No. BRRO-30260

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, Babcock & Wilcox Nuclear Operations Group Inc. - Mt Athos Site has applied for a Title V Operating Permit for its Campbell County, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Air Permit Contact: Keith Sandifer
Keith Sandifer
(434) 582-6232

Date: April 8, 2013

Air Permit Manager: Dan. Iron

Date: 4/8/13.

Regional Director: Robert J. White

Date: 4/8/13.

FACILITY INFORMATION

Permitee

Babcock & Wilcox Nuclear Operations Group Inc. - Mt Athos Site

P. O. Box 785

Lynchburg, VA 24505-0785

Facility

Babcock & Wilcox Nuclear Operations Group Inc. - Mt Athos Site

P. O. Box 785

Lynchburg, VA 24505-0785

County-Plant Identification Number: 51- 031-0006

SOURCE DESCRIPTION

NAICS Code: 332410 –Power Boiler and Heat Exchanger Manufacturing

The major activity at this facility is the production and assembly of unirradiated enriched uranium elements into nuclear reactors or fuel modules for power, propulsion, and research applications. This facility is primarily a metal fabricator, which involves the fabrication of metal components from stock metal through various machining process, welding, grinding, pickling, cleaning, and final assembly. Secondary to this is the recovery of uranium fuel, uranium downblending, and the research and development of uranium fuel manufacturing techniques. In addition, B&W operates nuclear environmental testing laboratories (SIC 8734) for both research and development and for commercial purposes. Support facilities at this facility include a steam plant, a water treatment plant, and a wastewater treatment plant.

The facility is a Title V major source of nitrogen oxides. This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility is a synthetic minor HAPS source. The facility was previously permitted under Minor NSR permits issued October 2, 1995, September 12, 1997, September 23, 2002, June 18, 2002 (superseded March 31, 2000 and June 12, 1998 permits), December 23, 2004 (superseded permit dated October 28, 1999), and a State Operating Permit issued June 4, 2007.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit on May 16, 2012, was conducted on May 16, 2012. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

See Title V Permit Condition II.

EMISSIONS INVENTORY

A copy of the 2011 annual emission update is attached. Emissions are summarized in the following tables.

2011 Actual Emissions

	2011 Criteria Pollutant Emissions in Tons/Year				
Emission Unit	VOC	CO	SO ₂	PM ₁₀	NO _x
EU-B-1 & EU-B-2	0.2	2.6	0.02	0.2	3.1
EU-10-9 & EU-10-10					0.04
EU-15A-1					
EU-8A-1	0.3				
EU-FUGTV-1	17.9				
EU-5A-1 to EU-5A-6 & EU-5A-8 to EU-5A-16					35.4
EU-13A-1 & EU-14A-1 to EU-14A-4, EU-14A-17, EU-14A-19 and EU-14A-10					0.03

Total	18.4	2.6	0.02	0.2	38.6
-------	------	-----	------	-----	------

2011 Facility Hazardous Air Pollutant Emissions

Pollutant	2011 Hazardous Air Pollutant Emissions in Tons/Yr
HCL	0.06
HF	0.06

EMISSION UNIT APPLICABLE REQUIREMENTS – III Boilers EU-B-1 and EU-B-2**Limitations**

Both boilers are existing boilers. The boilers are not NSPS Subpart Dc affected facilities. The boilers are not subject to the area source Boiler MACT (JJJJJ), because they only burn natural gas with fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel (40 CFR 63.11195 (e)). Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. The particulate matter limits are derived from the standards in 9 VAC 5-40-900 A and the sulfur dioxide limits are derived from the standards in 9 VAC 5-40-930 A. Since the approved fuel for these boilers is natural gas with distillate oil as a standby or emergency fuel, it is expected that the emissions will be well below the existing source standards.

Fuel sulfur is indirectly limited because ASTM standards for 1 and 2 required less than or equal to 0.5% sulfur (by wt.) in the distillate oil. The max allowable SO₂ emissions are limited by 9 VAC 5-40-930 to 2.64K, where K is the boiler's maximum heat input capacity in MMBtu/hr. Since each boiler is approved to burn distillate oil, the maximum SO₂ emissions are calculated to be 13.6 lb/hr for each boiler, which is well below the regulatory limit of 70.0 lb/hr¹.

The maximum allowable PM emissions are limited by to 10 lb/hr by 9 VAC 5-40- 900 A.1.b. The boilers are limited to distillate oil and natural gas, so the maximum PM emissions have been calculated to be 0.6 lb/hr².

1 SO₂ emissions factor from AP-42, Section 1.3, Fuel Oil Combustion, Table 1.3-1, 5/10, is 142S lb/1000 gallons combusted, where S is the % sulfur (by wt.). SO₂ maximum hour emissions (142 lb_{SO2}/k gal x 0.5%S x 26.5 MMBtu/hr)/(138,000Btu/gal) x 1000 gal= 13.6, SO₂ allowable emission 2.64 x 25.6 = 70.0 lb/hr.

2 PM emissions factor from AP-42, Section 1.3, Fuel Oil Combustion, Table 1.3-1, 5/10, is 3.3 lb/1000 gallons combusted (2 for filterable and 1.3 for condensable). PM maximum hour emissions (3.3 lb/k gal x 26.5 MMBtu/hr / 138,000 But/gal X 1000 gal) = 0.6 lb/hr.

Condition III. A.1. limits the approved fuels to natural gas and distillate oil.

Condition III.A.2. limits the opacity to 20 percent opacity except during one six-minute period in any one hour in which the visible emissions shall not exceed 60 percent opacity.

Condition III.A.3. requires the boilers to be operated and maintained properly and the boiler operators be trained in the proper operation of the boilers.

Monitoring and Recordkeeping

Condition III.B. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the boiler stack (VS-B-1) at least one time per week, when the boiler is operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the boiler has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the annual throughput of natural gas and distillate oil, the F-factor, pollutant specific emission factors, and emission equations for the two B&W boilers. A statement that the distillate oil complies with the ASTM specifications for fuel oil numbers 1 or 2. Records shall be available on site for inspection by the DEQ and be current for the most recent 5 years

Both the expected SO₂ and PM emissions are well below the allowable, so documentation that the fuel combusted is distillate oil or natural gas, recording the amounts used, and opacity periodic monitoring is sufficient monitoring for the two boilers.

The permit does not require source tests. These boilers burn only natural gas with distillate oil as backup fuel. Based on AP-42 emission factors for distillate oil and natural gas, it is expected that the particulate matter and sulfur dioxide emissions will be well below the Rule 4-8 standards. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS - IV. Bakeoff/replenishing tank - EU-10-10

Limitations

Condition IV.A.1. contains the requirement that the bakeoff/replenishment tank be controlled by

a scrubber with a flow meter and differential pressure indicator through the scrubber. This condition is taken from the NSR permit issued September 12, 1997.

Condition IV.A.2 limits the annual amount of spent acid solution evaporated. This condition is taken from the NSR permit issued September 12, 1997.

Condition IV.A.3. contains the notification requirements for a malfunction of the facility or related air pollution equipment that may cause excess air emissions. This condition is taken from the September 12, 1997 NSR permit.

Condition IV.A.4. contains the measures that the source is required to take to minimize the duration and frequency of excess emissions per the September 12, 1997 NSR permit.

In this process the spent acid solution, which contains hydrochloric acid and hydrofluoric acid, is heated to 120 to 130° F to reduce the volume over a period of several days. They can evaporate up to 5.086 gallons of this solution per hour. They are limited to an annual evaporation of 44,300 gallons per year of spent acid solution. HCl and HF will evaporate in proportion to their concentration in the spent solution. HCl concentration is 0.07298 lb/gal and HF is 0.0151 lb/gal. The control efficiency for both HCL and HF is 90%. Therefore to calculation emissions from throughput just use throughput X the concentration X (1-control efficiency of 90%).

Monitoring and Recordkeeping

Condition IV.B. includes requirements for maintaining records of all monitoring and testing required by the permit. These records include requirements per the September 12, 1997 NSR permit.

This unit is not subject to CAM, because the unit is not subject to an emissions limitation or standard.. Uncontrolled HF emissions would be 1.6 tons/yr and HCl emissions would be 3.4 tons/yr.

Monitoring the flow and differential pressure and keeping records of the yearly evaporation is sufficient monitoring for this process.

Testing

Condition IV.C. does not require source tests, but does require the facility to be constructed to allow emissions testing. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS - V. Uranium Metal Dissolvers EU-15A-1

Limitations

Condition V.A.1. contains the control equipments and scrubber control parameters. This condition is taken from the NSR permit issued December 23, 2004.

Condition V.A.2. contains the opacity limitations from the NSR permit issued December 23, 2004. The condition applies at all times except startup, shutdown, and malfunction.

Condition V.A.3. contains the measures that the source is to take to minimize the duration and frequency of excess emissions per the NSR permit issued December 23, 2004.

Condition V.A.4. contains the nitrogen oxide emission limitations. This is taken from the NSR permit issued December 23, 2004.

The uranium metal dissolution process involves the use of nitric acid to dissolve the uranium. Nitrogen dioxide is released during the dissolution. Each dissolver can process 20 kg (44 lbs) of uranium per 12 hours (176 lbs for 4 dissolvers). Stoichiometrically, 1.17 pounds of nitrogen dioxide is produced for each pound of uranium processed. Therefore, there will be an uncontrolled emission rate of 34.3 lbs (176 lbs / 12 hours X 1.17 lbs NO₂/lb U X 2 for peak dissolution per hour and 75.2 tons/yr (176 lbs uranium/batch X 2 batches/day X 365 X 1.17 lbs NO₂/lb U / 2000 lb/ton) of nitrogen dioxide. The NO₂ emissions are controlled by a scrubber with a NO₂ removal efficiency of 60% as BACT. NO₂ emissions are calculated as follows:
NO₂ emissions (in tons) = Tons of dissolved uranium X 1.17 lb NO₂/lb U X (1 60%).

CAM

Uncontrolled NO_x emissions are 75.3 tons/yr³. CAM is not required for this process.

Monitoring and Recordkeeping

Condition V.B.1. states that the ejector/scrubber system (PC-14A-2 and PC-14A-3) shall be equipped with devices to continuously measure the ejector/scrubber liquid flow rate and the differential pressure drop across the ejector/scrubber and the ejector/scrubber liquid pH. This requirement was taken from the NSR permit issued 12/23/2004.

Condition V.B.2. requires each pressure drop meter used to continuously measure pressure drop, each liquid flow rate meter, and liquid pH meter to be observed by the permittee with a frequency of not less than once per day to ensure good performance of the ejector/scrubber system. This is sufficient monitoring for NO₂.

Condition V.C. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the uranium metal dissolvers (EU-15A-1) stack (VS-14A-4) at least one time per week, when the units are operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible

³ From application page A-15

emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the unit has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

Opacity monitoring required by current permit has not shown this to be a source of VE and therefore continued use of monitoring at the same frequency is sufficient monitoring.

Condition V.D. contains the recordkeeping requirements for the uranium metal dissolvers (EU-15A-1). These are taken from the NSR permit issued 12/23/2004.

Testing

Condition V.E. required that the facility be constructed to allow for emissions testing and upon request from the DEQ, test ports be provided at the appropriated locations.

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The only reporting that is required is stated in the General Conditions.

EMISSION UNIT APPLICABLE REQUIREMENTS - VI. Rotary Calciner – EU-13A-3

This unit is not located at a mineral processing plant and therefore not subject to NSPS UUU – Standards of Performance for Calciners and Dryers in Mineral Industries. The unit is used to calcine solids containing recoverable amounts of uranium metal. The uranium-bearing residue is then processed to extract the uranium for reuse. “Materials recovery units that combust waste for the primary purpose of recovering metal” are exempt from the provisions of Article 45 per 9 VAC 5-40-6250 C.8.

Limitations

Condition VI.A.1 contains the particulate emissions control equipment. This condition is taken from the NSR permit issued June 18, 2002.

Condition VI.A.2 requires that the scrubber be equipped with devices to continuously measure pressure drop and that it be operated properly. This condition is taken from the NSR permit issued June 18, 2002.

Condition VI.A.3. limits the amount of general scrap that can be processed. This condition is taken from the NSR permit issued June 18, 2002.

Condition VI.A.4. contains the opacity limitations of 5% from the NSR permit issued June 18, 2002

Condition VI.A. 5 contains the measures that the source is to take to minimize the duration and frequency of excess emissions per the NSR permit issued June 18, 2002

Using emission factor for highest PM emissions, the emission factor is 15 lb/ton. The unit can process 52.91 lb/hr. Therefore the maximum uncontrolled PM/PM10 emissions would be -1.74 tons/yr (15 lb/ton X 52.91 lb/hr / 2000 lb/ton X 8760 hr/yr / 2000 lb/ton). This unit is controlled by a cyclone, an electric afterburner, a fixed throat venturi scrubber, and mist eliminator. PM/PM10 control is estimated to be at least 80%.

CAM

Uncontrolled PM emissions are less than 2 tons per year, CAM is not required.

Monitoring and Recordkeeping

Condition VI.B. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the rotary calciner (EU-13A-3) stack (VS-13A-2) at least one time per week, when the unit is operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the unit has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

Opacity monitoring required by current permit has not shown this to be a source of VE and therefore continued use of monitoring at the same frequency is sufficient monitoring.

Condition VI.C. contains the recordkeeping requirements from the NSR permit issued June 18, 2002 and the opacity monitoring recordkeeping.

Testing

The permit does not require source tests, but Condition VI.D. requires that the facility be constructed to allow for emissions testing per the NSR permit issued on June 18, 2002. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Condition VI.E. contains the reporting requirements from the NSR permit issued June 18, 2002.

EMISSION UNIT APPLICABLE REQUIREMENTS – VII. CRF 6" Centorr Finishing Furnace – (EU-13A-2) and ThermoCraft Vertical Tube Furnaces – (EU-12A-3A and EU-12A-3B)

Limitations

Condition VII.A.1. contains the control equipment. This condition is taken from the State Operating Permit issued June 4, 2007.

Condition VII.A.2 requires that the scrubber be equipped with devices to continuously measure the scrubber liquid flow rate and pressure drop and that it be operated in accordance with approved procedures which include, as a minimum, the manufacturer's written requirements or recommendations. This condition is taken from the State Operating Permit issued June 4, 2007.

Condition VII.A.3. and 4 contain the hydrogen chloride emissions limits from each of the furnaces. These conditions are taken from the State Operating Permit issued June 4, 2007.

Condition VII.A.5 contains the opacity limitations from the State Operating Permit issued June 4, 2007.

Condition VII.A.6. contains the measures that the source is to take to minimize the duration and frequency of excess emissions per the State Operating Permit issued June 4, 2007.

Condition VII.A.7 requires that the facility have available written operating procedures for related air pollution control equipment, that operators be trained, and records be kept of the training. This condition is taken from the State Operating Permit issued June 4, 2007.

This permit was a State Operating Permit issued to limit the hydrogen Chloride (HCl) emissions from two ThermoCraft vertical tube finishing furnaces (EU-12A-3A and EU-12A-3B) to 0.01 lb/hr HCl (.09 tons/yr total) each and one Centorr finishing furnace (EU-13A-2) to 0.05 lb/hr HCl (0.2 tons/yr).

CAM

Uncontrolled HCl emissions from the Centorr finishing furnace (EU-13A-2) is 8.95 tons/yr and from each ThermoCraft vertical tube finishing furnace (EU-12A-3A or EU-12A-3B) is 5.8 tons/yr. CAM is not required.

Monitoring and Recordkeeping

Condition VII.B.1. requires the permittee to observe the flow meter and the pressure drop meter with a frequency of not less than once per day and requires that a log of the observations be kept.

Condition VII.B.2. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the finishing furnaces (EU-12A-3A, EU-12A-3B, and EU-13A-2) stack (VS-14A-3) at least one time per week, when the unit is operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the unit has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the yearly throughput of uranium through the furnaces, consumption of chlorine, annual emissions of hydrogen chloride, and results of the weekly observations of the furnace and is sufficient monitoring.

Testing

The permit does not require source tests, but Condition VII.D. requires that the facility be constructed to allow for emissions testing per the State Operating Permit issued June 4, 2007. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

Condition VII.E. contains the reporting requirements from the State Operating Permit issued June 4, 2007.

EMISSION UNIT APPLICABLE REQUIREMENTS – VIII. Dye Check Room – EU-8A-1

Recordkeeping and Monitoring

Condition VIII.A. states the recordkeeping requirements. The only regulatory requirement for the Dye Check Room is that the owner shall keep records as may be necessary to determine emissions (9 VAC 5-40-50F). Recordkeeping of the throughput of VOCs is sufficient monitoring for actual VOC emissions determination from the Dye Check Room.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

EMISSION UNIT APPLICABLE REQUIREMENTS – IX. General Cleaning of Metal Components – EU-FUGTV-1

Recordkeeping

Condition IX.A. contains the cleaning materials recordkeeping requirements. The only regulatory requirement for general cleaning of metal components is that the owner shall keep records as may be necessary to determine emissions (9 VAC 5-40-50F). Recordkeeping of the throughput of VOCs is sufficient monitoring for VOC emissions determination from the general cleaning of metal.

EMISSION UNIT APPLICABLE REQUIREMENTS – X. Pickling Tanks – EU-5A-1 to EU-5A-6 and EU-5A-8 to EU-5A-16

Limitations

Condition X.A. contains the opacity limitations for existing sources from 9 VAC 5-40-80.

CAM

This process is not subject to CAM. Even though there is a scrubber for the NO_x and HF emissions, there is no emission limitation or standard for NO_x or HF emissions from this unit.

Monitoring and Recordkeeping

Condition X.B. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the Bay 5A stack (VS-4-1) at least one time per week, when the pickling tanks are operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the pickling tanks have not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

Opacity monitoring required by current permit has not shown this to be a source of VE and therefore continued use of monitoring at the same frequency is sufficient monitoring.

Condition X.C of the permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the annual amount of material processed sufficient to calculate nitrogen dioxide and HF emissions and results of the weekly visual observations.

EMISSION UNIT APPLICABLE REQUIREMENTS – XI. Pickling Tank – EU-10-9

Limitations

Condition XI.A. contains the opacity limitations for existing sources from 9 VAC 5-40-80 and 9 VAC 5-40-320.

Monitoring and Recordkeeping

Condition XI.B. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the Bay 10 stack (VS-9-1) at least one time per week, when the pickling tank is operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the pickling tank has not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

Opacity monitoring required by current permit has not shown this to be a source of VE and therefore continued use of monitoring at the same frequency is sufficient monitoring.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the annual amount of material processed sufficient to calculate nitrogen dioxide and HF emissions and results of the weekly visual observations.

EMISSION UNIT APPLICABLE REQUIREMENTS – XII. Dissolvers EU-13A-1, EU-14A-1 to EU-14A-4, EU-14A-17, and U-14A-19

Limitations

Condition XII. A.1. contains the opacity limitation for new sources (EU-14A-17 and EU-14A-19) from 9 VAC 5-50-80 and 290, New Source Standard for Visible Emissions.

Condition XII.A.2. contains the opacity limitations for existing sources (EU-13A-1, EU-14A-1 to EU-14A-4) from 9 VAC 5-40-80 and 9 VAC 5-40-320.

Monitoring and Recordkeeping

Condition XII.B. contains the opacity periodic monitoring. Monitoring of visible emissions will be required of the source to make an observation of the dissolvers stack (VS-14A-1) at least one time per week, when the dissolvers are operating. They are to observe for the presence of visible emissions from the stack. If visible emissions are observed, the permittee will have to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions compliance. The permittee will keep a log of observations, any VEE recordings, and any corrective action. If the dissolvers have not operated during the week, this fact shall be noted in the log, and that the visible emission observation was not required. Also, if visible emissions have been conducted for 12 consecutive weeks and no visible emissions are seen, the permittee may reduce the monitoring frequency to once per month for the stack.

Opacity monitoring required by current permit has not shown this to be a source of VE and therefore continued use of monitoring at the same frequency is sufficient monitoring.

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include the annual amount of uranium processed and emissions equations sufficient to calculate nitrogen dioxide and HF emissions and results of the weekly visual observations.

EMISSION UNIT APPLICABLE REQUIREMENTS – XIII. Emergency Generators

Unit ID	Date of Manufacture	Date of Installation	Rated Capacity (kW)	Rated Capacity (hp)	Applicable Federal Requirements
Group 1					
EU-01-01	1982	1982	370	503	40-CFR 63 Subpart ZZZZ
EU-01A-13	2004	2004	685	1027.5	40-CFR 63 Subpart ZZZZ
EU-10A-01	2003	2003	400	535	40-CFR 63 Subpart ZZZZ
Group 2					
EU-BC-03	2010	2012	800	1214	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ
EU-FF-01	2010	2010	800	1214	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ
Group 3					
EU-B1-01	2002	2002	200	325	40-CFR 63 Subpart ZZZZ
EU-BC-06	1988	1988	150	230	40-CFR 63 Subpart ZZZZ
EU-MM2-02	1980	1980	200	235	40-CFR 63 Subpart ZZZZ
EU-AMB-01	1981	1981	100	166	40-CFR 63 Subpart ZZZZ

EU-LL-05	4/22/2006	2006	200	325	40-CFR 63 Subpart ZZZZ
EU-BD-04	2001	2001	188	219	40-CFR 63 Subpart ZZZZ
EU-WT-01	2/1977	<1998	Fire Pump	310	40-CFR 63 Subpart ZZZZ
EU-WT-01	7/1975	<1998	Fire Pump	310	40-CFR 63 Subpart ZZZZ
Group 4					
EU-DN-01	2011	2012	450	689	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ

Emergency generators are grouped by date of manufacture and rated capacity.

Groups 2 and 4 are subject to 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. All four groups are subject to the requirements of 40 CFR 63, Subpart ZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Limitations

Conditions XIII.A. 1. and 2. include NSPS IIII applicable requirements. Conditions XIII.A. 3. 4. and 5. include MACT ZZZZ applicable requirements

Condition XIII.A.6. contains the opacity limitation for new sources (emergency generators) from 9 VAC 5-50-80 and 290, New Source Standard for Visible Emissions.

Monitoring, Testing, Recordkeeping, and Reporting

Conditions XIII.A.2 – 5. include the requirements for monitoring, testing, recordkeeping, and reporting requirements from NSPS IIII and MACT ZZZZ for the emergency generators.

Conditions XIII.B.1 and 2. include the opacity periodic monitoring from the generator stacks.

MACT standards include sufficient monitoring, recordkeeping, and reporting requirements to satisfy monitoring requirements.

EMISSION UNIT APPLICABLE REQUIREMENTS – XIV National Emissions Standards for Hazardous Air Pollutant Area Source Standards-Fabricated Metals Products – (MACT XXXXXX)

Condition XIV include requirements for management practices, monitoring, notifications, recordkeeping, and reporting requirements for equipment subject to the National Emissions Standards for Hazardous Air Pollutant Area Source Standards-Fabricated Metals Products – (MACT 40 CFR 63 Subpart XXXXXX).

GHG

Based on the application, B&W emits less than 25,000 tons of GHG per year and reporting requirements do not apply. There are no applicable GHG permitting requirements⁴.

Streamlined Requirements

None

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 permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by ☐ §2.1-20.01:2 and ☐ §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-2003".

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

J. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

⁴ The CO₂ equivalent emissions from the 2 boilers are 37978.1 tons/yr (26.5 MMBtu/hr x 163.6 lb CO₂e/MMBtu x 8760 / 2000 x 2).

- 9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
- 9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
- 9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:
40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.
40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.
40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:

- 9 VAC 5-60-70. Designated Emissions Standards
- 9 VAC 5-80-110. Permit Content

STATE ONLY APPLICABLE REQUIREMENTS

There are no state-only requirements.

FUTURE APPLICABLE REQUIREMENTS

There are no known future applicable requirements.

INAPPLICABLE REQUIREMENTS

NSPS Dc does not apply to the boilers, since they were constructed before June 9, 1989.

Two fuel oil tanks (EU-TANK-91 and EU-Tanks-92) hold 12,000 gallons of fuel each. NSPS

Kb only requires that records of the design capacity and dimensions of the tanks be kept on-site for the life of the tanks.

MACT Subpart T National Emission Standards for Halogenated Solvent Cleaning. There are no MACT Subpart T units at the facility. B&W uses detergent cleaners in the washers. Material wiping is performed with citrus based cleaners which contain VOCs but no HAPs or halogenated materials and isopropyl alcohol.

MACT Subpart MMMM - National Emission Standards for Hazardous Air Pollutants Surface Coating of Miscellaneous Metal Parts and Products does not apply, because B&W is not a major source for HAPs. Also, the coatings used in the paint booth do not contain HAPs.

MACT Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters does not apply since B&W is not a major source of HAPs.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

COMPLIANCE PLAN

A compliance plan is not required.

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, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

See permit Condition XV.

Note: EU-BA-1 is an existing 0.67 MMBtu/hr natural gas fired boiler and is not subject to MACT JJJJJ, since it burns only natural gas (40 CFR 63.11195 (e)).

Note: The LLR sludge drying system (Eu-W-4) is not subject to NESHAPs 40 CFR 61 Subpart E –National Emission Standard for Mercury, because it does not meet the definition of a sludge dryer. Subpart E defines a “Sludge Dryer” as a device used to reduce the moisture content of sludge by heat to temperatures above 65° C directly with combustion gases. The B&W sludge dryer system is designed to heat the sludge by radiant infrared energy and not by combustion gases.

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

CONFIDENTIAL INFORMATION

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

COMPLIANCE ASSURANCE MONITORING (CAM)

In accordance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM), a review for Cam has been completed. The following three conditions must be met for an emissions unit to be subject to CAM are:

1. emits or has the potential to emit (in the absence of add-on control devices) quantities of one or more regulated air pollutant that exceed major source thresholds,
2. is subject to one or more emissions limitations for the regulated air pollutant(s) for which it is major before control, and
3. uses a control device to achieve compliance with one or more of these emission limitations.

B&W does not have any emissions units that have a potential to emit major quantities of one or more regulated pollutants (in the absence of add-on control devices) and that uses a control device. Therefore, there are no emissions units subject to CAM at B&W.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in The NEWS & ADVANCE from February 20, 2013 to March 22, 2013.