



# COMMONWEALTH of VIRGINIA

Douglas W. Domenech  
Secretary of Natural Resources

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

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Blue Ridge Regional Office  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

Robert J. Weld  
Regional Director

**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
<b>XI.</b>	<b>PICKLING TANK – EU-10-9 .....</b>	<b>23</b>
A.	LIMITATIONS .....	23
B.	PERIODIC MONITORING .....	23
C.	RECORDKEEPING .....	24
<b>XII.</b>	<b>DISSOLVERS EU-13A-1, EU-14A-1 TO EU-14A-4, EU-14A-17, AND U-14A-19.....</b>	<b>24</b>
A.	LIMITATIONS .....	24
B.	PERIODIC MONITORING .....	25
C.	RECORDKEEPING .....	25
<b>XIII.</b>	<b>EMERGENCY GENERATORS.....</b>	<b>26</b>
A.	LIMITATIONS .....	26
B.	MONITORING .....	28
C.	RECORDKEEPING AND REPORTING.....	28
<b>XIV.</b>	<b>NATIONAL EMISSIONS\STANDARDS FOR HAZARDOUS AIR POLLUTANT AREA SOURCE STANDARDS-FABRICATED METALS PRODUCTS – (MACT XXXXXX) .....</b>	<b>29</b>
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
<b>XV.</b>	<b>INSIGNIFICANT EMISSION UNITS.....</b>	<b>29</b>
<b>XVI.</b>	<b>PERMIT SHIELD &amp; INAPPLICABLE REQUIREMENTS.....</b>	<b>37</b>
<b>XVII.</b>	<b>GENERAL CONDITIONS.....</b>	<b>38</b>
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
<b>Fuel Burning Equipment</b>							
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
<b>Acid Bake-off</b>							
EU-10-10	VS-09-1	Acid Bake-off	5.1 gal/hr	Mikro-Pol 315 scrubber	PC-9-1	NO <sub>x</sub> , HF, and HCl	9/12/1997
<b>Dissolvers</b>							
EU-14A-17	VS-14A-1	Uranium fuel dissolver	0.55 kg/hr	Heil 739-P scrubber	PC-14A-1	NO <sub>x</sub>	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	NO <sub>x</sub>	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	NO <sub>x</sub> & 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	NO <sub>x</sub>	10/28/1999 superseded 12/23/04

				system			
<b>Rotary Calciner</b>							
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
<b>Centorr Finishing Furnace</b>							
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
<b>Dye Checks</b>							
EU-08A-01	VS-7A-1 & VS-7A-3	Dye Check Room	2.6 lb/hr	None	N/A	N/A	N/A
<b>General Metal Cleaning</b>							
EU-FGTV-1	Fugitive	General cleaning of metal components	N/A	N/A	N/A	N/A	N/A
<b>Pickling Units</b>							
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	NO <sub>x</sub> , HCl, & HF	N/A
<b>Other</b>							
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 <sub>2</sub>	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 <sub>2</sub>	70.0 lb/hr	9 VAC 5- 40-930

Note: PM=PM<sub>10</sub>

#### 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 (as NO <sub>2</sub> )	13.6 lbs/hr	30 tons/yr
--	-------------	------------

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 06004/2007 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
<b>Group 1</b>					
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
<b>Group 2</b>					
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
<b>Group 3</b>					
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
<b>Group 4</b>					
EU-DN-01	2011	2012	450	689	40 CFR 60 Subpart IIII 40-CFR 63 Subpart ZZZZ

#### A. Limitations

1. 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)
2. 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.
  - a. Emissions limitations as specified in 40 CFR 60.4202 and 60.4205;
  - b. 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 III)
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 III. 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	PM10	
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.	PM10	
EU-2A-5	Tack Welder	5-80-720 B.1.	PM10	
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.	NOx	
EU-11-8	Pickle Tank	5-80-720 B.1.	NOx	
EU-6-1	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-2	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-3	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-4	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-5	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-6	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-7	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-8	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-9	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-10	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , 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 <sub>10</sub> , Chromium, Nickel, & Cobalt	
EU-6-12	Handwork Station (Downdraft Table)	5-80-720 B.1. & B.5.	PM, PM <sub>10</sub> , 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	

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

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	

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

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 JJJJJ 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](mailto: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)