west virginia department of environmental protection
Division of Air Quality

# Phase II Acid Rain Permit

| | | |
|---|---|---|
| Plant Name: **Kanawha River Power Station** | | Permit #: **R33-3936-2017-4** |
| Affected Unit(s): **1, 2** | | |
| Operator: **Appalachian Power Company** | | ORIS Code: **3936** |
| Effective Date | From: **January 1, 2013** | To: **December 31, 2017** |

**Contents:**


**1.** Statement of Basis.

**2.** $SO_2$ allowances allocated under this permit and $NO_x$ requirements for each affected unit.

**3.** Comments, notes and justifications regarding permit decisions and changes made to permit application forms during the review process, and any additional requirements or conditions.

**4.** The permit application forms submitted for this source, as corrected by the West Virginia Division of Air Quality. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.


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## 1. Statement of Basis

**Statutory and Regulatory Authorities:** In accordance with W. Va. Code §22-5-4(a)(16) and Titles IV and V of the Clean Air Act, the West Virginia Department of Environmental Protection, Division of Air Quality issues this permit pursuant to 45CSR33 and 45CSR30.

**Permit Approval**

*DRAFT*

John A. Benedict, Director
Division of Air Quality

Date

| Plant Name: **Kanawha River Power Station** | Permit #: **R33-3936-2017-4** |
|---|---|

## 2. $SO_2$ Allocations and $NO_x$ Requirements for each affected unit

| Unit No. | **1** |
|---|---|

| **$SO_2$ Allowances** | **Year** | | | | |
|---|---|---|---|---|---|
| | **2013** | **2014** | **2015** | **2016** | **2017** |
| **Table 2 allowances, as adjusted by 40CFR Part 73** | 3981 | 3981 | 3981 | 3981 | 3981 |
| **Repowering plan allowances** | N/A | N/A | N/A | N/A | N/A |

The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit $SO_2$ allowance allocations identified in this permit (See 40 CFR §72.84).

| **$NO_X$ Requirements** | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| **$NO_X$ Limit (lb/mmBtu)** | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

Pursuant to 40 CFR §76.11, the West Virginia Department of Environmental Protection, Division of Air Quality approves four (4) $NO_x$ emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2013, 2014, 2015 and 2016. Under each plan, the unit's $NO_x$ emissions shall not exceed the annual alternative contemporaneous emission limitation (ACEL) of 0.80 lb/mmBtu.

Under the plan, the actual Btu-weighted annual average $NO_x$ emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average $NO_x$ emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR §76.5, 76.6 or 76.7, except that for early election units, the applicable emission limitations shall be under 40 CFR §76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR §76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

In accordance with 40 CFR §72.40(b)(2), approval of the averaging plan shall be final only when the Arkansas Department of Environmental Quality, Air Division, Indiana Department of Environmental Management, Office of Air Quality, the Kentucky Department for Environmental Protection, Division for Air Quality, the Ohio Environmental Protection Agency, Division of Air Pollution Control the Oklahoma Department of Environmental Quality, Air Quality Division, Virginia Department of Environmental Quality, Division of Air Quality and the Texas Commission on Environmental Quality, Office of Air have also approved this averaging plan.

In addition to the described $NO_x$ compliance plans, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a $NO_x$ compliance plan and requirements covering excess emissions.

Pursuant to 40 CFR Part 76 and 45CSR33, the West Virginia Department of Environmental Protection, Division of Air Quality approves a $NO_x$ emissions compliance plan for this unit effective for calendar year 2017. Under this plan the unit's actual annual average $NO_x$ emission rate shall not exceed the applicable limitation of 0.80 lb/mmBtu as set forth in 40 CFR 76.6(a)(4) for Group 2 vertically fired boilers.

## 3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

## 4. Permit application forms:

Attached.

| Plant Name: **Kanawha River Power Station** | Permit #: **R33-3936-2017-4** |
|---|---|

## 2. $SO_2$ Allocations and $NO_x$ Requirements for each affected unit

| Unit No. | **2** |
|---|---|

| **$SO_2$ Allowances** | **Year** | | | | |
|---|---|---|---|---|---|
| | **2013** | **2014** | **2015** | **2016** | **2017** |
| **Table 2 allowances, as adjusted by 40CFR Part 73** | 3545 | 3545 | 3545 | 3545 | 3545 |
| **Repowering plan allowances** | N/A | N/A | N/A | N/A | N/A |

The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. The aforementioned condition does not necessitate a revision to the unit $SO_2$ allowance allocations identified in this permit (See 40 CFR §72.84).

| **$NO_X$ Requirements** | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|
| **$NO_X$ Limit (lb/mmBtu)** | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

Pursuant to 40 CFR §76.11, the West Virginia Department of Environmental Protection, Division of Air Quality approves four (4) $NO_x$ emissions averaging plans for this unit. Each plan is effective for one calendar year for the years 2013, 2014, 2015 and 2016. Under each plan, the unit's $NO_x$ emissions shall not exceed the annual alternative contemporaneous emission limitation (ACEL) of 0.80 lb/mmBtu.

Under the plan, the actual Btu-weighted annual average $NO_x$ emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average $NO_x$ emission rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations under 40 CFR §76.5, 76.6 or 76.7, except that for early election units, the applicable emission limitations shall be under 40 CFR §76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR §76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

In accordance with 40 CFR §72.40(b)(2), approval of the averaging plan shall be final only when the Arkansas Department of Environmental Quality, Air Division, Indiana Department of Environmental Management, Office of Air Quality, the Kentucky Department for Environmental Protection, Division for Air Quality, the Ohio Environmental Protection Agency, Division of Air Pollution Control the Oklahoma Department of Environmental Quality, Air Quality Division, Virginia Department of Environmental Quality, Division of Air Quality and the Texas Commission on Environmental Quality, Office of Air have also approved this averaging plan.

In addition to the described $NO_x$ compliance plans, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a $NO_x$ compliance plan and requirements covering excess emissions.

Pursuant to 40 CFR part 76 and 45CSR33, the West Virginia Department of Environmental Protection, Division of Air Quality approves a $NO_x$ emissions compliance plan for this unit effective for calendar year 2017. Under this plan the unit's actual annual average $NO_x$ emission rate shall not exceed the applicable limitation of 0.80 lb/mmBtu as set forth in 40 CFR 76.6(a)(4) for Group 2 vertically fired boilers.

## 3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

## 4. Permit application forms:

Attached

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 11/30/2012

# Acid Rain Permit Application

RECEIVED
JUN 13 2012
WV DEP / DIV OF AIR QUALITY

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ new ☐ revised ☒ for Acid Rain permit renewal

**STEP 1**

Identify the facility name, State, and plant (ORIS) code.

| Facility (Source) Name | State | Plant Code |
|---|---|---|
| Kanawha River | West Virginia | 3936 |

**STEP 2**

Enter the unit ID# for every affected unit at the affected source in column "a."

| a | b |
|---|---|
| Unit ID# | Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1) |
| 1 | Yes |
| 2 | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |

Facility (Source) Name (from STEP 1): Kanawha River

**STEP 3**

Read the standard requirements.

## Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

## Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

## Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Kanawha River
Facility (Source) Name (from STEP 1)

## Sulfur Dioxide Requirements, Cont'd.

**STEP 3, Cont'd.**

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

## Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

## Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

## Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

Kanawha River
Facility (Source) Name (from STEP 1)

## Recordkeeping and Reporting Requirements, Cont'd.

**STEP 3, Cont'd.**

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

## Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

## Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Facility (Source) Name (from STEP 1): Kanawha River

## Effect on Other Authorities, Cont'd.

**STEP 3, Cont'd.**

to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a source can hold; *provided,* that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

## Certification

**STEP 4**
Read the certification statement, sign, and date.

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

| | |
|---|---|
| Name John M. McManus | |
| Signature John M McManus | Date 6/8/12 |

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 11/30/2012

# Phase II $NO_x$ Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9



This submission is: [ ] New [X] Revised

**STEP 1**
Indicate plant name, State, and ORIS code from NADB, if applicable

| Plant Name | State | ORIS Code |
|---|---|---|
| Kanawha River | WV | 3936 |

**STEP 2**

Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.

| | 1 | 2 | | | | |
|---|---|---|---|---|---|---|
| ID# | 1 | 2 | | | | |
| Type | V | V | | | | |
| (a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers) | | | | | | |
| (b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers) | | | | | | |
| (c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan) | | | | | | |
| (d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers) | | | | | | |
| (e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers) | | | | | | |
| (f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers) | | | | | | |
| (g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers) | | | | | | |
| (h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers) | | | | | | |
| (i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers) | | | | | | |
| (j) $NO_x$ Averaging Plan (include $NO_x$ Averaging form) | X | X | | | | |
| (k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack) | | | | | | |
| (l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with $NO_x$ Averaging (check the $NO_x$ Averaging Plan box and include $NO_x$ Averaging form) | X | X | | | | |

Plant Name (from Step 1): Kanawha River

**STEP 2, cont'd.**

| | 1 | 2 | | | | |
|---|---|---|---|---|---|---|
| | ID# | ID# | ID# | ID# | ID# | ID# |
| | V Type | V Type | Type | Type | Type | Type |
| **(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17(a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)** | | | | | | |
| **(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)** | | | | | | |
| **(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing** | | | | | | |
| **(p) Repowering extension plan approved or under review** | | | | | | |

**STEP 3**
**Read the standard requirements and certification, enter the name of the designated representative, sign &**

**Standard Requirements**

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)) These requirements are listed in this source's Acid Rain Permit.

**Special Provisions for Early Election Units**

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for $NO_x$ as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).
Liability The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.
Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for $NO_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7 If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for $NO_x$ for Phase II units with Group 1 boilers under 40 CFR 76.7

**Certification**

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

| | |
|---|---|
| Name: John M. McManus | |
| Signature: John M. McManus | Date: 12/16/2011 |

# Phase II NOx Averaging Plan

formation, see instructions and refer to 40 CFR 76.11



This submission is: ☐ New **X** Revised



**STEP 1**

**Identify the units participating in this averaging plan by plant name, State, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation (ACEL) in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.**

| Plant Name | State | ID# | (a) Emission Limitation | (b) ACEL | (c) Annual Heat Input Limit |
|---|---|---|---|---|---|
| Big Sandy | KY | BSU1 | 0.46 | 0.46 | 4,387,500 |
| Big Sandy | KY | BSU2 | 0.46 | 0.46 | 20,654,800 |
| Cardinal | OH | 1 | 0.68 | 0.68 | 35,706,600 |
| Cardinal | OH | 2 | 0.68 | 0.68 | 38,100,800 |
| Cardinal | OH | 3 | 0.68 | 0.68 | 44,110,400 |
| Clinch River | VA | 1 | 0.80 | 0.80 | 6,771,000 |
| Clinch River | VA | 2 | 0.80 | 0.80 | 4,946,333 |
| Clinch River | VA | 3 | 0.80 | 0.80 | 1,962,667 |
| Conesville | OH | 3 | 0.50 | 0.50 | 3,121,000 |

**STEP 2**

**Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.**

| Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan | | Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7 |
|---|---|---|
| **0.55** | ≤ | **0.55** |

$$\frac{\sum_{i=1}^{n} (R_{Li} \times HI_i)}{\sum_{i=1}^{n} HI_i} \leq \frac{\sum_{i=1}^{n} [R_{Ii} \times HI_i]}{\sum_{i=1}^{n} HI_i}$$

Where,

$R_{Li}$ = Alternative contemporaneous annual emission limitation for unit i, in lb/mmBtu, as specified in column (b) of Step 1:

$R_{Ii}$ = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;

$HI_i$ = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;

n = Number of units in the averaging plan

Kanawha River
Plant Name (from Step 1)



**STEP 3**

**Mark one of the two options and enter dates.**

X This plan is effective for calendar year ____2012_____ through calendar year ____2016_____ unless notification to terminate the plan is given

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years: _____, _____, _____, _____ and _____ unless notification to terminate one or more of these plans is given.

**STEP 4**

**Read the special provisions and certification, enter the name of the designated representative, and sign and date.**

**Special Provisions**

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for $NO_x$ under the plan only if the following requirements are met:

(i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
(a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,
(b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
(ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.
(iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

**Certification**

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

| | |
|---|---|
| John M. McManus<br>Name | |
| Signature John M. McManus | 12/16/2011<br>Date |

Kanawha River
Plant Name (from Step 1)



**STEP 1**
**Continue the identification of units from Step 1, page 1, here.**

| Plant Name | State | ID# | (a) Emission Limitation | (b) Alt. Contemp Emission Limitation | (c) Annual Heat Input Limit |
|---|---|---|---|---|---|
| Conesville | OH | 4 | 0.45 | 0.45 | 26,635,402 |
| Conesville | OH | 5 | 0.40 | 0.40 | 22,186,800 |
| Conesville | OH | 6 | 0.40 | 0.40 | 22,199,000 |
| Flint Creek | AR | 1 | 0.46 | 0.46 | 36,618,000 |
| Gavin | OH | 1 | 0.68 | 0.68 | 86,254,800 |
| Gavin | OH | 1 | 0.68 | 0.68 | 87,018,000 |
| Glen Lyn | VA | 51 | 0.40 | 0.40 | 95,667 |
| Glen Lyn | VA | 52 | 0.40 | 0.40 | 95,667 |
| Glen Lyn | VA | 6 | 0.46 | 0.46 | 458,333 |
| H. W. Pirkey | TX | 1 | 0.46 | 0.46 | 50,495,460 |
| John E Amos | WV | 1 | 0.46 | 0.46 | 46,170,600 |
| John E. Amos | WV | 2 | 0.46 | 0.46 | 45,943,400 |
| John E. Amos | WV | 3 | 0.68 | 0.68 | 77,249,200 |
| Kammer | WV | 1 | 0.86 | 0.86 | 5,680,333 |
| Kammer | WV | 2 | 0.86 | 0.86 | 5,809,667 |
| Kammer | WV | 3 | 0.86 | 0.86 | 1,646,667 |
| Kanawha River | WV | 1 | 0.80 | 0.80 | 6,712,667 |
| Kanawha River | WV | 2 | 0.80 | 0.80 | 7,704,000 |
| Mitchell | WV | 1 | 0.50 | 0.50 | 41,309,600 |
| Mitchell | WV | 2 | 0.50 | 0.50 | 40,614,800 |
| Mountaineer | WV | 1 | 0.46 | 0.46 | 78,416,600 |
| Muskingum River | OH | 1 | 0.84 | 0.84 | 2,661,667 |
| Muskingum River | OH | 2 | 0.84 | 0.84 | 3,688,500 |
| Muskingum River | OH | 3 | 0.86 | 0.86 | 2,823,667 |
| Muskingum River | OH | 4 | 0.86 | 0.86 | 4,097,500 |
| Muskingum River | OH | 5 | 0.68 | 0.68 | 25,708,333 |
| Northeastern | OK | 3313 | 0.40 | 0.40 | 30,421,000 |

Kanawha River
Plant Name (from Step 1)



**STEP 1**
**Continue the identification of units from Step 1, page 1, here.**

| Plant Name | State | ID# | (a) Emission Limitation | (b) Alt. Contemp Emission Limitation | (c) Annual Heat Input Limit |
|---|---|---|---|---|---|
| Northeastern | OK | 3314 | 0.40 | 0.40 | 33,788,500 |
| Oklaunion | TX | 1 | 0.46 | 0.46 | 35,170,513 |
| Philip Sporn | WV | 11 | 0.80 | 0.80 | 676,500 |
| Philip Sporn | WV | 21 | 0.80 | 0.80 | 4,932,667 |
| Philip Sporn | WV | 31 | 0.80 | 0.80 | 5,801,000 |
| Philip Sporn | WV | 41 | 0.80 | 0.80 | 682,000 |
| Picway | OH | 9 | 0.50 | 0.50 | 111,000 |
| Rockport | IN | MB1 | 0.46 | 0.46 | 71,187,200 |
| Rockport | IN | MB2 | 0.46 | 0.46 | 66,539,800 |
| Tanners Creek | IN | U1 | 0.80 | 0.80 | 540,333 |
| Tanners Creek | IN | U2 | 0.80 | 0.80 | 615,000 |
| Tanners Creek | IN | U3 | 0.80 | 0.80 | 6,433,333 |
| Tanners Creek | IN | U4 | 0.86 | 0.86 | 25,732,800 |
| Welsh | TX | 1 | 0.46 | 0.46 | 32,998,200 |
| Welsh | TX | 2 | 0.46 | 0.46 | 32,026,000 |
| Welsh | TX | 3 | 0.46 | 0.46 | 32,364,000 |
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