

**MEMO**

**TO** File AQ/FAC/RACT/03-000-027  
APS # 1002530 Auth #1349542 PF # 275229

**FROM** Hubert Thomas Flaherty *HTF 9/9/2021*  
New Source Review  
Air Quality Program

**THROUGH** David G. Balog, P.E. *DGB 9/9/2021* Eric A. Gustafson *EAG 9/10/21*  
Environmental Engineer Manager Regional Program Manager  
Air Quality Program Air Quality Program  
Northwest Regional Office Northwest Regional Office

**DATE** September 9, 2021

**RE** Review of Application for RACT II  
Keystone Conemaugh Project - Keystone Generating Station  
Title V Operating Permit No. 03-00027  
Plum Township, Armstrong County

**RACT II:**

RACT II final rulemaking was published in the *Pa. Bulletin* on April 23, 2016. In accordance with 25 Pa. Code 129.96(a), RACT II is applicable to the owner and operator of a major NO<sub>x</sub> and/or VOC emitting facility that were in existence on or before July 20, 2012.

Keystone Conemaugh Project – Keystone Generation Station (Keystone) is a major stationary source of NO<sub>x</sub> & VOCs and was in existence before July 20, 2012. As such, in accordance with 25 Pa. Code §129.96, this facility is subject to the Department’s RACT II requirements under §§129.97-129.100.

On August 27, 2020, the U.S. Third Circuit Court of Appeals issued an opinion in *Sierra Club v. EPA*, 3d. Cir. No. 19-2562 (“Sierra Club”) vacating and remanding three aspects of the U.S. Environmental Protection Agency’s (EPA) May 19, 2019 approval of DEP’s 2016 RACT II rule to reduce ozone pollution from coal-fired power plants (84 FR 20274). Sierra Club challenged EPA’s approval of the RACT II Rule’s oxides of nitrogen (NO<sub>x</sub>) emission limit for coal-fired power plants with selective catalytic reduction (SCR) pollution controls; the inlet operating temperature threshold for power plants to operate SCR pollution controls; and operating temperature data recordkeeping and reporting requirements. The Court found EPA’s approval of these three provisions of the RACT II Rule were not supported by the administrative record. As a result, the Court vacated EPA’s approval of these three provisions and remanded them back to the agency for further action. The vacated portion of the RACT II Rule affects Keystone facility.

As a result of the Court's decision in Sierra Club, DEP is required to address RACT II requirements for existing coal-fired combustion units with SCR systems. DEP determined that the best method to do this is through requiring the owner or operator of each unit affected by the Court's decision to case-by-case RACT determinations in accordance with the procedures in §129.92(a)(1)—(5) and (b), which includes a top-down analysis.

DEP sent the letter to Keystone Conemaugh Project LLC on November 20, 2020, to submit case-by-case RACT II determinations that satisfy 25 Pa. Code § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule) requirements by April 1, 2021. Keystone submitted the case by case RACT determination to DEP on April 1, 2021. Subsequently on April 14, 2021, Keystone submitted a significant operating permit modification application. DEP will incorporate the final RACT determinations with associated conditions into Keystone's Title V operating permit. RACT determinations incorporated into the Title V operating permit will be submitted to EPA as a state implementation plan revision.

The RACT II Application contained sources subject to alternative RACT proposal. The facility RACT II application addresses four (4) sources subject to an alternative RACT proposal for NO<sub>x</sub> pursuant to §129.99(b) and no sources subject to an alternative RACT proposal for VOC pursuant to §129.99(c). This review consists of only the alternate RACT proposal from 25 PA Code 129.99.

Source	Source Name	Rating	NO <sub>x</sub>	VOC
031	Boiler 1 with Low NO <sub>x</sub> Burner	8,717 mmbtu/hr	Alternate (case-by-case)	N/A
032	Boiler 2 with Low NO <sub>x</sub> Burner	8,717 mmbtu/hr	Alternate (case-by-case)	N/A
037	Aux Boiler A	138 mmbtu/hr	Alternate (case-by-case)	N/A
038	Aux Boiler B	138 mmbtu/hr	Alternate (case-by-case)	N/A

Notes:

- Source 031 & 032 fired with bituminous coal with #2 fuel oil for startup and as needed supplemental firing.
- Source 037 & 038 fired with #2 fuel oil

#### **Alternative RACT Proposal and Petition for Alternative Compliance Schedule:**

In accordance with §129.99(d)(1), the facility shall submit a written RACT proposal in accordance with the procedures in §129.92(a)(1)-(5), (7)-(10) and (b).

From 25 Pa. Code 129.99(a), the facility may propose an alternative RACT requirement or RACT emission limitation in accordance with subsection (d). The facility proposed the following:

- Source 031 & 032: NO<sub>x</sub> emission limit of 950 lb/hr based on a rolling 30-day average.
- Source 037 & 038: NO<sub>x</sub> emission limit of less than or equal to 0.22 lb/mmbtu and less than or equal to 13.3 tpy based on a 12-month rolling total.

#### **Original RACT (12-29-94)**

- Installation of air cleaning devices: Low NO<sub>x</sub> concentric firing system (LNCFS) Level III on Units 1 and 2 (Source 031 & 032). [Condition 3] Installation of the LNCFS with separated over-fire air will allow the facility to meet NO<sub>x</sub> presumptive RACT.
- Source 037 & 038 shall be operated at a capacity factor of no more than 10% and maintained in accordance with the manufacturer's specifications. [Condition 4]

- Maintain an operating log for the auxiliary boilers to verify that the annual capacity limit is not exceeded. [Condition 5]
- NO<sub>x</sub> emissions from each main unit shall not exceed 0.45 lb/mmbtu based on a 30-day rolling average. [Condition 9]
- Facility wide NO<sub>x</sub> emissions shall not exceed 31,673 tons per year. [Condition 10]

**NO<sub>x</sub> Analysis:**

Existing NO<sub>x</sub> Control Technologies for Source 031 & Source 032:

- Low NO<sub>x</sub> Burner (LNB) – C04 & C05
- Selective Catalytic Reduction (SCR) – C31A & C31B
- Flue Gas Desulfurization (FGD) – C031 & C032 (SO<sub>x</sub> control)

Existing NO<sub>x</sub> Control Technologies for Source 037 & Source 038:

- None

Additional NO<sub>x</sub> Control Technologies:

- Precombustion Controls:
  - Switching to Natural Gas
  - Switching from high to low emitting or zero emitting units
- Combustion Controls:
  - Partial or full oxyfiring
  - Oxygen enhanced combustion
  - LNB installation
  - LNB Optimization
  - LNB Upgrade
  - Flue Gas Recirculation (FGR)
  - Separated overfired air
  - Rotating opposed fire air
- Post Combustion Controls:
  - Addition of SCR
  - SCR Optimization
  - Economizer Bypass during low load, startup, and shutdown to allow SCR operation
  - V-temp economizer during low load, startup, and shutdown to allow SCR operation
  - Flue gas reheat during low load, startup, and shutdown to allow SCR operation
  - Dry sorbent injection prior to SCR during low load conditions to allow SCR operation
  - Addition of Selective Non-Catalytic Reduction (SNCR)
  - SNCR Optimization
  - Return of partially operating SCR and SNCR systems to full operation
- Station Wide Improvements:
  - Installation/improvement of digital process controls on equipment to minimize NO<sub>x</sub> emissions and detect equipment in need to maintenance
  - Improved/increased equipment cleaning and maintenance practices

Evaluation of Technical Feasibility:

See Keystone Review Memo August 25, 2021 from Vince Pascucci & Naishadh Bhatt for a detailed RACT analysis review using a top-down approach for the following additional NO<sub>x</sub> control technologies:

- Precombustion Controls:
  - Switching to Natural Gas
  - Switching from high to low emitting or zero emitting units
- Combustion Controls:
  - Oxygen enhanced combustion
  - LNB installation
  - LNB Optimization
  - LNB Upgrade
  - Flue Gas Recirculation (FGR)
  - Rotating opposed fire air
- Post Combustion Controls:
  - Addition of SCR
  - SCR Optimization
  - Economizer Bypass during low load, startup, and shutdown to allow SCR operation
  - V-temp economizer during low load, startup, and shutdown to allow SCR operation
  - Flue gas reheat during low load, startup, and shutdown to allow SCR operation
  - Dry sorbent injection prior to SCR during low load conditions to allow SCR operation
  - Addition of Selective Non-Catalytic Reduction (SNCR)
  - SNCR Optimization

The Department agrees with the facility's analysis using a top-down approach for the following additional NO<sub>x</sub> control technologies:

- Combustion Controls:
  - Partial or full oxyfiring
  - Separated overfired air
- Post Combustion Controls:
  - Return of partially operating SCR and SNCR systems to full operation
- Station Wide Improvements:
  - Installation/improvement of digital process controls on equipment to minimize NO<sub>x</sub> emissions and detect equipment in need to maintenance
  - Improved/increased equipment cleaning and maintenance practices

Based on the review of the additional NO<sub>x</sub> control technologies, none of the additional NO<sub>x</sub> control technologies were feasible.

#### NO<sub>x</sub> Conclusion:

For Source 031 & Source 032, no additional control technologies are deemed RACT II. RACT II is deemed to be the following [See Keystone Review Memo August 25, 2021 from Vince Pascucci & Naishadh]:

- Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> for Units 1 and 2 are individually limited to a maximum of 0.080 lb/mmBtu on a daily average basis.

- Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> from Unit 1 and 2 are individually limited to a maximum of 0.30 lb/mmbtu on a daily average basis under all operating conditions.
- Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> from Unit 1 and 2 are individually limited to a maximum 800 lbs/hr on a 30-operating day rolling average basis under all operating conditions.
- Within 3 months of the effective date of this permit, the facility shall set the SCR at a target NO<sub>x</sub> emission rate of 0.060 lb/mmbtu.
- After operating the SCR with an outlet NO<sub>x</sub> emission rate set-point of 0.060 lb/mmbtu for twelve consecutive months, the facility shall submit an engineering study within 180 days that analyzes the overall environmental performance of the system at that set-point.

For Source 037 & Source 038, no additional control technologies are deemed RACT II. RACT II is deemed to be the following:

- NO<sub>x</sub> emission rate of less than or equal to 0.22 lb/mmbtu for each source.
- NO<sub>x</sub> emissions less than or equal to 13.3 tpy based on a 12-month rolling total for each source.
- Each source shall not exceed a 10% annual heat input capacity factor (from original RACT).

**Conditions:**

The facility operating permit should include the following:

1. Emissions of NO<sub>x</sub>, expressed as NO<sub>2</sub>, for the Auxiliary Boilers A & B (Sources 037 & 038) are individually limited to a maximum of 0.22 lb/mmbtu on a daily average basis.
2. Emissions of NO<sub>x</sub>, expressed as NO<sub>2</sub>, for the Auxiliary Boilers A & B (Sources 037 & 038) are individually limited to a maximum of 13.3 tpy based on a 12-month rolling total.
3. Auxiliary Boilers A & B (Sources 037 & 038) shall each not exceed a 10% annual heat input capacity factor.
4. Maintain an operating log for the Auxiliary Boilers A & B (Sources 037 & 038) to verify that the annual capacity limit is not exceeded.
5. Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> for Boiler 1 & 2 (Sources 031 & 032) are individually limited to a maximum of 0.080 lb/mmbtu on a daily average basis.
6. This limit excludes, emissions during start-up, shut-down, and malfunction; operation pursuant to emergency generation required by PJM, including any necessary testing for such emergency operations; and during periods in which compliance with this emission limit would require operation of any equipment in a manner inconsistent with technological limitations, good engineering and maintenance practices, and/or good air pollution control practices for minimizing emissions.

Startup means: The period in which operation of the EGU is initiated after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup.

Shutdown means: The period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or when no fuel is being fired in the EGU, whichever is earlier. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.

Daily average means: The total mass for each of the hours during the calendar day divided by the total heat input for each of the hours during the calendar day. This calculation methodology would also apply to the limit below (0.30 lb/mmbtu).

7. Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> from Boiler 1 & 2 (Sources 031 & 032) are individually limited to a maximum of 0.30 lb/mmbtu on a daily average basis under all operating conditions.
8. Emissions of NO<sub>x</sub> expressed as NO<sub>2</sub> from Boiler 1 & 2 (Sources 031 & 032) are individually limited to a maximum 800 lbs/hr on a 30-operating day rolling average basis under all operating conditions.
9. The owner or operator shall calibrate, operate, and maintain all elements of the SCR system and units in accordance with the manufacturer's specifications, in a manner consistent with good engineering and air pollution control practices when the SCR system is in use.
10. The owner or operator shall operate and maintain LNB in accordance with the manufacturer's specifications and in a manner consistent with good engineering and air pollution control practices. **§127.441 (Non RACT Condition).**
11. The owner or operator shall maintain NO<sub>x</sub> controls as effective as reasonably possible during startups and shutdowns.
12. The owner or operator shall take steps to bring NO<sub>x</sub> controls back into full service as quickly as practicable whenever the control equipment experiences a malfunction.
13. The owner or operator shall document and report to the DEP, information regarding the cause of the malfunction and the steps for bringing the controls back.
14. All operators of Boiler 1 & 2 (Sources 031 & 032), SCR, and LNB shall be trained in the operation and maintenance of the unit(s) they are assigned to operate by qualified personnel. **§127.441 (Non RACT Condition).**
15. The owner or operator shall develop, maintain, and implement an operation and maintenance plan (O&M Plan) for Boiler 1 & 2 (Sources 031 & 032) and the SCR within 30-days of issuance. The O&M Plan shall include, but not be limited to the following:

Inspection, repairs, and preventive maintenance procedures to be followed to ensure proper operation of the Boiler 1 & 2 (Sources 031 & 032) and SCR system and continuing compliance with the applicable emission limits specified in this Permit.

A description of preventive maintenance schedules, spare parts inventories, procedures and protocols for unscheduled outages, and provisions for equipment replacement and measures to be taken to protect SCR system in the event of failure or shutdown.

Inspections of duct work and boiler casing and repairs of leaks to maintain flue gas temperature.

Details of the practices and procedures to be followed during periods of startup, shutdown and upset conditions in order to prevent emissions in excess of the standards specified in this permit.

16. The owner or operator shall develop, maintain, and implement an operation and maintenance plan (O&M Plan) for Boiler 1 & 2 (Sources 031 & 032) and LNB within 30-days of issuance. The O&M Plan shall include, but not be limited to the following:

Inspection, repairs, and preventive maintenance procedures to be followed to ensure proper operation of the Boiler 1 & 2 (Sources 031 & 032) and LNB and continuing compliance with the emission standards specified in this Permit.

A description of preventive maintenance schedules, spare parts inventories, procedures and protocols for unscheduled outages, and provisions for equipment replacement and measures to be taken to protect air pollution control equipment in the event of any control equipment failure or shutdown.

Details of the practices and procedures to be followed during periods of startup, shutdown and upset conditions in order to prevent emissions in excess of the standards specified in this permit.

Inspections, repair and testing of Over Fire Air (OFA) components.

Details of the practices and procedures to be followed to ensure that the boiler is tuned to optimize NO<sub>x</sub> reduction over combustion efficiency, including but not limited to the properly adjusted burner angle.

17. The facility shall tune Boiler 1 & 2 (Sources 031 & 032) to minimize NO<sub>x</sub> emissions within 6 months of the effective date of this permit. **§127.441 (Non RACT Condition).**
18. The facility shall tune Boiler 1 & 2 (Sources 031 & 032) to minimize NO<sub>x</sub> emissions annually after the initial boiler tuning. **§127.441 (Non RACT Condition).**
19. The facility shall maintain the following records of the tune-up:
- The date of the tuning procedure.
  - The name of the service company and the technician performing the procedure.
  - The final operating rate or load.
  - The final NO<sub>x</sub> and CO emission rates.
  - The final excess oxygen rate. **§127.441 (Non RACT Condition).**

20. Within 3 months of the effective date of this permit, the facility shall set the SCR at a target NO<sub>x</sub> emission rate of 0.060 lb/mmbtu for Boiler 1 & 2 (Sources 031 & 032). **§127.441 (Non RACT Condition)**.
21. After operating the SCR with an outlet NO<sub>x</sub> emission rate set-point of 0.060 lb/mmbtu for twelve consecutive months, the facility shall submit an engineering study within 180 days that analyzes the overall environmental performance of the system at that set-point. **§127.441 (Non RACT Condition)**.
22. Within the first 60-days of each calendar year, the facility shall perform a catalyst activity test.
23. Within 60 days of receiving the results of catalyst activity test, the facility shall consult with the SCR catalyst vendor to monitor SCR performance in accordance with the catalyst management plans (CMPs) developed for the SCR systems. Corrective action, if required, shall be completed by April 30<sup>th</sup>.
24. A minimum of one (1) stack test in accordance with in 25 Pa. Code, Chapter 139, Subchapter A (relating to sampling and testing methods and procedures) and the Department Source Testing Manual shall be performed on Auxiliary Boiler A & B (Sources 037 & 038) during each five (5) calendar year period to verify the emission rates for NO<sub>x</sub>. This test should be conducted between 6 to 18 months prior to the operating permit expiration date.

25. The permittee shall monitor the following for Boiler 1 & 2 (Sources 031 & 032):

The SCR inlet temperature, continuously, in order to determine compliance with the O&M Plan.

The permittee shall monitor and record the times at which the SCR inlet temperature transitions across the 600°F threshold.

The ammonia injection rate to the SCR, continuously, in order to determine compliance with the O&M Plan.

26. The permittee shall keep records of the following for Boiler 1 & 2 (Sources 031 & 032) to demonstrate compliance with 25 Pa. Code §§ 129.97 in the following manner:

The SCR inlet temperature continuously with at least one reading every 15 minutes.

When the SCR inlet temperature transitions across the 600°F threshold.

The ammonia injection rate to the SCR hourly with at least one reading every hour.

The records must include sufficient data, including SCR inlet temperature for each boiler; times at which the SCR inlet temperature transitions across the 600°F threshold for each boiler; ammonia injection rate for each boiler, and calculations to demonstrate that the requirements of §§ 129.97 are met.



Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

27. The permittee shall submit quarterly reports to the Department for Boiler 1 & 2 (Sources 031 & 032) of the following:

The SCR inlet temperature on an hourly average basis.

The ammonia injection rate to the SCR on an hourly average basis.

The quarterly reports shall be submitted according to the following schedule:

The quarterly report for the period of January 1 - March 31 is due no later than April 30.

The quarterly report for the period of April 1 - June 30 is due no later than July 30.

The quarterly report for the period of July 1 - September 30 is due no later than October 30.

The quarterly report for the period of October 1 - December 31 is due no later than January 30.

28. Monitoring Requirements: [Additional authority for this permit condition is derived from, 40 CFR Part 75, 40 CFR Sections 52.2020, and 25 Pa. Code Sections 139.4, & 139.101]

a. Continuous Emission Monitoring Requirements

The following continuous emission monitoring systems (CEMS) must be installed, approved by the Department, operated and maintained in accordance with the requirements of 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), and the "Submittal and Approval", "Record Keeping and Reporting", and "Quality Assurance" requirements of Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001.

For Source 031 & 032: Units No. 1 & 2

Pollutant	Measurement	Averaging Period	Standard	Basis
NO <sub>x</sub>	lb/mmbtu	Calendar Day	0.080 lb/mmbtu	Continuously excluding emissions during start-up, shut-down, and malfunction; operation pursuant to emergency generation required by PJM, including any necessary testing for such emergency operations; and during periods in which compliance with this emission limit would require operation of any equipment in a manner inconsistent with technological limitations, good

				engineering and maintenance practices, and/or good air pollution control practices for minimizing emissions
NO <sub>x</sub>	lb/mmbtu	Calendar Day	0.30 lb/mmbtu	Continuously under all operating conditions
NO <sub>x</sub>	lb/hr	30-operating day rolling average	800 lb/hr	Continuously under all operating conditions

Note: Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the terms of this permit.

b. Data Availability Standards

1. The continuous emission monitoring systems (CEMS) for NO<sub>x</sub> are required by 25 Pa. Code §139.101(12) to meet at least one of the following minimum data availability requirements unless other data availability requirements are stipulated elsewhere:

In each calendar month, at least 90% of the time periods for which an emission standard or operational parameter applies shall be valid as set forth in the Quality Assurance section of the Manual (Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001).

In each calendar quarter, at least 95% of the hours shall be valid as set forth in the Quality Assurance section of the Manual (Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001).

Note: Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the terms of this permit.

c. Certification and Testing Requirements

Initial Application (Phase I)

Upon promulgation of a monitoring requirement, a proposal containing information as listed in the Phase I section of the Department's Continuous Source Monitoring Manual for the proposed CEMS must be submitted to the Department 180 days prior to the initial startup of a new source and within 180 days of promulgation of a monitoring requirement for an existing source.

Performance Testing (Phase II)

After approval of Phase I, the applicant shall proceed with purchasing, installation, and performance testing. The CEM Section must be advised in writing at least 45 days prior to Performance Specification Testing to provide the opportunity to observe and participate in all testing. A testing protocol, describing all testing procedures and methodology to be used must accompany the notice of testing. Schedule changes must be reported seven days prior to testing except that failed tests may be repeated immediately. Testing as listed in the Phase II section of the Department's Continuous Source Monitoring Manual must be completed for the CEMS[s] no later than 180 days after initial source startup and no later than 60 days after the source achieves

normal process capacity. During testing, the source must be operated in a manner that is representative of normal operating conditions. All other notifications and performance specification testing must be conducted in accordance with the Department's Continuous Source Monitoring Manual.

#### Final Approval (Phase III)

The final report of testing as listed in the Phase III section of the Department's Continuous Source Monitoring Manual must be submitted to the Bureau no later than 60 days after completion of the testing. The owner or operator of the source shall not be issued an operating permit until the CEMS have received Phase III approval, in writing from the Department, when installation of a CEMS is made a condition of the plan approval. Until Phase III Department approval is obtained, operation shall be covered solely under condition of a plan approval.

Note: Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the terms of this permit.

29. Recordkeeping Requirements: [Additional authority for this permit condition is derived from 40 CFR Part 75, 40 CFR Sections 52.2020, and 25 Pa. Code Sections 139.101(5) and 139.101(12).]

The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

Records shall be retained for at least 5 years and shall be made available to the Department upon request.

Note: Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit.

30. Reporting Requirements: [Additional authority for this permit condition is derived from, 40 CFR Part 75, 40 CFR Sections 52.2020, and 25 Pa. Code Sections 139.101(1)(iv)4, 139.101(10) & 139.101(12)]

The permittee shall submit quarterly reports of continuous emission monitoring to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements as established in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

The permittee shall report emissions for all periods of unit operation, including startup, shutdown, and malfunction.

Initial quarterly reports following system certification shall be submitted to the Department within 35 days following the date upon which the Department notifies the owner or operator, in

writing, of the approval of the continuous source monitoring system for use in determining compliance with applicable emission standards.

Subsequent quarterly reports shall be submitted to the Department within 30 days after the end of each calendar quarter.

Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this Permit, unless approved in advance by the Department in writing.

Note: Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit.

31. Quality Assurance Requirements: [Additional authority for this permit condition is derived from, 40 CFR Part 75, 40 CFR Sections 52.2020, and 25 Pa. Code Sections 139.101(1)(iv), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(8), 139.101(12), 139.101(14), and 139.101(15)]

Continuous Emission Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Quality Assurance" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.

Note: Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit.

32. Testing Requirements: [25 Pa. Code §127.441(c) & Chapter 139; §§114(a)(3), 504(b) of the CAA] Sampling, Testing and Monitoring Procedures

The permittee shall perform the emissions monitoring analysis procedures or test methods required under an applicable requirement including procedures and methods under Sections 114(a)(3) ( 42 U.S.C.A. §§ 7414 (a)(3)) or 504(b) ( 42 U.S.C.A. §§ 7661c(b)) of the Clean Air Act.

Note: Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the terms of this permit.

33. In accordance with §129.99(g), the emission limit and requirements specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f) supersede the emission limit and requirements in the existing plan approval or operating permit issued to the owner or operator of the source prior to April 23, 2016, on the date specified in the plan approval or operating permit issued by the Department or appropriate approved local air pollution control agency under subsection (f), except to the extent the existing plan approval or operating permit contains more stringent requirements.

34. In accordance with §129.100(a), Except as provided in subsection (c), the owner and operator of an air contamination source subject to a NO<sub>x</sub> RACT requirement or RACT emission limitation or VOC RACT requirement or RACT emission limitation, or both, listed in §129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:

(4) For an air contamination source without a CEMS, monitoring and testing in accordance with a Department-approved emissions source test that meets the requirements of Chapter 139, Subchapter A (relating to sampling and testing methods and procedures). The source test shall be conducted one time in each 5-year calendar period.

35. In accordance with §129.100(d), the owner and operator of an air contamination source subject to this section and §§129.96-129.99 shall keep records to demonstrate compliance with §§129.96-129.99 in the following manner:

The records must include sufficient data and calculations to demonstrate that the requirements of 25 PA Code 129.96 – 129.99 are met.

Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

36. In accordance with §129.100(i), records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

**Administrative Elements:**

This application is not subject to NSPS, NESHAP, NSR, or PSD permitting requirements. The Compliance Review Form was received on April 14, 2021. Plum Creek Township received municipal notification of application on April 12, 2021 and Armstrong County received municipal notification of application on April 14, 2021. The *Pa. Bulletin* notice will be scheduled for publication on September 11, 2021. Public Notice will be published by Keystone on three days in the Indiana Gazette on Thursday Sept. 9 through Saturday Sept. 11, 2021 to allow for a 30-day comment period. Public notice includes the opportunity for a public hearing on October 13<sup>th</sup> if requested by October 6, 2021 to accept oral comments on the proposed operating permit revision and the proposed SIP revision.

A draft of Title V operating permit will be e-mailed to EPA to allow for a 45-day comment period. There was no confidential information included in this application.

**Recommendation:**

I recommend publishing a notice of proposed revision to the State Implementation Plan for NO<sub>x</sub>, notice of public hearing, and notice of intent to modify Air Quality Title V Operating Permit 03-00027.

**Summary:**

The RACT II Proposal will be incorporated into the facility operating permit after submittal of the operating permit modification application which will include the following:

- Facility operating permit application cover sheet
- Fee
- Compliance History
- Municipal/County notifications and receipts
- GIF
- Description of the RACT II conditions & the RACT II application

cc: New Source Review - Hrsbg.  
File AQ/FAC//RACT/03-000-027 - thru L. McNabb  
New Castle District Office – thru D. Dyll  
EPA Region 3