

**BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

IN THE MATTER OF THE PROPOSED RENEWAL )  
TITLE V/STATE OPERATING )  
PERMIT NO. 54-00005 FOR )  
)  
WHEELABRATOR FRACKVILLE ENERGY, INC. )  
SCHUYLKILL COUNTY, PENNSYLVANIA )  
)  
ISSUED BY THE PENNSYLVANIA )  
DEPARTMENT OF ENVIRONMENTAL PROTECTION )  
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**PETITION TO THE EPA ADMINISTRATOR TO OBJECT TO ISSUANCE OF THE  
PROPOSED TITLE V OPERATING PERMIT RENEWAL FOR THE  
WHEELABRATOR FRACKVILLE ENERGY, INC. POWER PLANT**

Pursuant to Section 505 of the Clean Air Act, the Sierra Club and Environmental Integrity Project (“EIP”) hereby petition the Administrator of the United States Environmental Protection Agency (“EPA”) to object to the proposed Title V operating permit renewal No. 54-00005 (hereinafter “Proposed Permit”) issued by the Pennsylvania Department of Environmental Protection (“DEP”) for the Wheelabrator Frackville Energy, Inc. power generating facility (hereinafter “Wheelabrator”) in Schuylkill County, Pennsylvania. The Clean Air Act (“CAA”) mandates that EPA shall grant or deny any such petition within sixty days of its filing and that the Administrator “shall issue an objection . . . if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of [the Clean Air Act].” 42 U.S.C. § 7661d(b)(2).

As demonstrated below, the Proposed Permit is not in compliance with applicable requirements; therefore, objection by EPA is proper. *See id.* Specifically, the Proposed Permit lacks appropriate testing and monitoring conditions and terms necessary to assure compliance with the applicable requirement set forth in Wheelabrator’s Title V permit limiting particulate matter (“PM”) emissions from the Plant’s circulating-fluidized bed (“CFB”) boiler to 0.012 pounds per million BTU heat input (“lbs/MMBtu”). This objection was timely raised in Sierra Club and EIP’s comments on the Proposed Permit, submitted to DEP on October 11, 2017.<sup>1</sup> *See* Sierra Club and

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<sup>1</sup> Sierra Club and EIP copied EPA, via e-mail, on their October 11, 2017 comment submission to DEP. Petitioners also separately submitted substantively identical comments directly to EPA on September 26, 2017, in order to ensure the issues raised in this petition were known to EPA during the Agency’s 45-day review period.

EIP Comments Concerning the Revised Proposed Title V/State Operating Permit (#TVOP 54-00005) for the Wheelabrator Frackville Cogeneration Facility (October 11, 2017) (hereinafter “Sierra Club and EIP Comments”), attached hereto as Exhibit 1. EPA’s 45-day review period ended on October 17, 2017, and the 60-day public petition period for the Proposed Permit ends December 18, 2017. *See* EPA’s Title V Operating Permit Public Petition Deadlines Webpage, <https://www.epa.gov/caa-permitting/title-v-operating-permit-public-petition-deadlines>, screenshot attached hereto as Exhibit 2.

**I. The Proposed Permit Includes Impermissibly Lax Compliance Requirements for Particulate Matter Emissions from Wheelabrator’s CFB Boiler**

Wheelabrator’s Proposed Permit fails to require monitoring of PM emissions from its CFB boiler adequate to assure compliance with the permit’s applicable emission limit. Specifically, the Title V permit lacks testing and monitoring for PM sufficient to assure compliance with the continuous 0.012 lbs/MMBtu PM emission limitation set forth in Permit Section D.I., Source 031, Condition #003. *See* Proposed Permit at 23. Permit Section D.II., Source 031, Condition #011 requires source testing to determine the post-control emissions of total PM from Wheelabrator’s CFB boiler within 180 days after issuance of the permit and biannually thereafter. *See* Proposed Permit at 29. Other than this far too infrequent and inadequate testing of PM emissions, the permit contains no other direct monitoring or testing requirements on this unit for PM.

The only other monitoring requirements supposedly meant to assure compliance with the permit’s continuous 0.012 lbs/MMBtu PM emission limit is the requirement that the Plant operate and maintain its fabric filter baghouse, *see* Proposed Permit 48 (Section D.VI., Source 031, Condition #046), and the accompanying requirements to monitor opacity, *see* Proposed Permit at 41 (Section D.III., Source 031, Condition #27), and pressure drop differential, *see* Proposed Permit at 49 (Condition D.VI., Source 031, Condition #48), as secondary performance indicators of proper baghouse operation. *See* DEP ARM14 Statement of Basis (September 7, 2017) at 3. Even with the addition of these secondary indicators, the contemplated monitoring scheme for PM emissions from the Plant’s boiler is inadequate. Without direct monitoring of PM emissions or, at the very least, an appropriately robust set of secondary performance indicators to ensure adequate PM control, the terms of the Proposed Permit fail to comply with the Clean Air Act.

**II. The Proposed Permit Fails to Satisfy Part 70 Requirements**

CAA section 504(c), and implementing regulations in Part 70, require all Title V permits to contain compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with permit terms and conditions.<sup>2</sup> 40 C.F.R. §

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<sup>2</sup> Relevant Pennsylvania regulations are in accord: Title V permits issued by DEP must contain “compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” 25 Pa. Code § 127.513(1); *see also* 25 Pa. Code § 127.511(a)(2) (“monitoring requirements shall assure use of terms, test methods, units, averaging periods and other statistical conventions are consistent with the applicable requirement”).

70.6(a)(3)(i),(c)(1). In particular, monitoring requirements must “assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement.” 40 C.F.R. § 70.6(a)(3)(i)(B). These Part 70 requirements consist of both “periodic” and “umbrella” monitoring rules and describe the steps permitting authorities must take to fulfill the monitoring requirement under CAA section 504(c). See 40 C.F.R. §§ 70.6(a)(3)(i)(A), 70.6(a)(3)(i)(B), 70.6(c)(1); see also *In the Matter of EME Homer City Generation LP Indiana County, Penn*, Order on Petition Nos. III-2012-06, III-2012-07, III-2013-02 (Jul. 30, 2014) at 45, available at [https://www.epa.gov/sites/production/files/2015-08/documents/homer\\_response2012.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/homer_response2012.pdf); *In re TVA Bull Run*, Petition No. IV-2015-14 (EPA Nov. 10, 2016) at 7-8, available at [https://www.epa.gov/sites/production/files/2016-11/documents/tva\\_bull\\_run\\_order\\_granting\\_petition\\_to\\_object\\_to\\_permit\\_.pdf](https://www.epa.gov/sites/production/files/2016-11/documents/tva_bull_run_order_granting_petition_to_object_to_permit_.pdf).

The periodic monitoring rule provides that where an applicable requirement does not, itself, “require periodic testing or instrumental or noninstrumental monitoring,” the permit-writer must develop terms directing “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 C.F.R. § 70.6(a)(3)(i)(B); 40 C.F.R. § 70.6(c)(2)(iv) (requiring that substances and parameters are to be sampled and monitored at reasonable intervals so as to assure compliance with the permit or applicable requirements); see, e.g., *Sierra Club v. EPA*, 536 F.3d 673, 675 (D.C. Cir. 2008) (noting that a yearly monitoring requirement would not likely adequately address a daily maximum emission limit); U.S. EPA, *Objection to Proposed Title V Operating Permit for TriGen-Colorado Energy Corporation* (Sept. 13, 2000) (“a one-time test does not satisfy the periodic [PM] monitoring requirements” under the CAA), available at <https://www.epa.gov/sites/production/files/2015-07/documents/trigen.pdf>. In other words, if compliance with a given applicable requirement is a condition of the permit, the permit must contain monitoring of a frequency and type sufficient to assure compliance to the emitter, to the permitting authority, and to the public.

In instances where governing regulations set forth monitoring requirements inadequate to ensure compliance with certain applicable standards, the Title V permit must supplement those requirements to the extent necessary to ensure compliance with the permit’s terms and conditions. See *Sierra Club*, 536 F.3d at 678 (setting forth the steps and reiterating the necessity to supplement monitoring requirements: “[w]e read Title V to mean that someone must fix these inadequate monitoring requirements.”). This “umbrella” monitoring rule, 40 C.F.R. § 70.6(a)(3)(C), backstops the periodic requirement by making clear that permit writers must also correct “a periodic monitoring requirement inadequate to the task of assuring compliance,” *Sierra Club*, 536 F.3d at 675. EPA has confirmed the rigor of Title V permit monitoring requirements. See *EME Homer City* at 45 (concluding that “[t]he rationale for the monitoring requirements selected by a permitting authority must be clear and documented in the permit record” and that adequate monitoring is determined by careful, context-specific inquiry into the nature and variability of the

emissions at issue); *see also Bull Run* at 8. As explained below, the Proposed Permit fails to meet these Part 70 requirements.

### **III. The Compliance Requirements for Particulate Matter Emissions from the Plant's CFB Boiler Are Inadequate**

In accordance with the CAA and its implementing regulations, the monitoring requirements of 40 C.F.R. § 70.6(a)(3)(i)(A) and (B) and (c)(1) must be satisfied in regards to the applicable PM emission limit for Wheelabrator's CFB boiler. However, the terms and conditions in the Proposed Permit fail to meet these essential requirements.

First, the frequency of direct testing of PM emissions required by Wheelabrator's Proposed Permit is inadequate to assure compliance with the continuous 0.012 lbs/MMBtu limit. Proposed Permit Section D.II., Source 031, Condition #0011 states that, "[w]ithin 180 days after issuance of this permit (or a letter or a notice), the permittee shall conduct source testing on the exhaust of Source ID 031 to determine the post-control emissions of total particulate matter." Proposed Permit at 29. In addition, "[e]very two (2) years, the permittee shall conduct source testing to determine the post-control emissions of total particulate matter." *Id.* Such infrequent testing of PM emissions fails to satisfy the requirements of 40 C.F.R. part 70.6 because monitoring PM from the Plant's CFB boiler only once every two years is inadequate to assure compliance with the 0.012 lbs/MMBtu emission limit of Permit Section D.I., Source 031, Condition #002, applicable on a continuous basis. In accordance with the CAA, the Proposed Permit's PM emission limit for the Plant's CFB boiler must be accompanied by periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of Wheelabrator's compliance with its Title V permit.

Second, the Permit's other monitoring requirements are insufficient to yield reliable data from the relevant time period that are representative of compliance with the Permit's lbs/MMBtu PM limit for the Plant's CFB boiler. DEP has suggested that the requirement in the Permit to operate the fabric filter baghouse together with the Compliance Assurance Monitoring ("CAM") plan requirements to assess performance of the fabric filter—i.e. COMS and pressure drop differential as secondary performance indicators, somehow cure the inadequate stack testing requirements for PM emissions. *See* DEP ARM14 Statement of Basis (September 7, 2017) at 3. However, even considering these secondary baghouse performance indicators, the PM monitoring requirements fall short.

Specifically, employing only one baghouse process parameter—pressure drop differential—is ineffective in assuring sufficient PM control and compliance with the permit's PM emissions limit. Because the PM emissions limit applicable to Unit 031 is a *continuous* 0.012 lb/MMBtu limit, employing appropriate and robust secondary performance indicators for proper baghouse operation and particulate control is essential to assuring compliance with the applicable emissions limit where continuous direct monitoring of PM emissions is not required. Critically,

monitoring of pressure drop does not guarantee compliance with Wheelabrator's PM emissions limit because not all baghouse malfunctions that would increase particulate emissions will be detected by monitoring pressure differential. Additional parametric monitoring for the baghouse must be required to provide the requisite assurances that the system is operating efficiently at all times; and it should be focused on other parameters which would be most reflective of baghouse performance (e.g. fan amperage, gas flow rate, inlet temperature of the baghouses).

In addition, the proposed *twenty-four hour averaging* period for the pressure drop indicator is far too long to ensure proper particulate control and compliance with the Plant's *continuous* PM emission limit. See Proposed Permit at 43. Where the applicable emission limit is a continuous lb/MMBtu limit, a 24-hour averaging period for this performance indicator range would mean that the facility could potentially operate with such pressure drop variability that it would impact baghouse performance or control efficiency and, thereby, violate the PM standard for numerous hours a day, but, because the day was balanced out with a few hours of pressure drop below the indicator range, the excursion would not be recognized. Monitoring data and averaging periods must be representative of the source's compliance with the permit's PM emissions standard. 40 C.F.R. § 70.6(a)(3)(i)(B). Therefore, the recorded pressure drop range should not be based on a 24-hour daily average as it is meant to assure compliance with an emissions limit applicable on a continuous basis.

Finally, the Proposed Permit's treatment of excursions from its secondary indicator ranges fails to assure compliance with, and enforcement of, the applicable PM emissions limit. See Proposed Permit at 48-49. Any excursion from the secondary indicator ranges should be considered a violation of the applicable PM emissions limit, rather than merely triggering corrective action and/or the development of a "quality improvement plan." See Proposed Permit at 48-49. At the very least, additional PM stack testing should be promptly required following any excursion to determine actual compliance status of the source.

As demonstrated above, because the Proposed Permit does not contain requirements that assure compliance with the CFB boiler's PM emission limit, EPA should object to the permit and require the incorporation of more appropriately robust testing and monitoring requirements for the unit's PM emissions, in accordance with 42 U.S.C. § 7661c(c) and 40 C.F.R. §§ 70.6(a)(3), (c)(1).

#### **IV. Continuous, Direct Monitoring of Particulate Matter Emissions from the Plant's CFB Boiler Is Necessary**

The determination of adequate monitoring in a Title V permit is context-specific. *EME Homer City* at 45; *Bull Run* at 8. As a starting point for this determination, EPA has stated that a permitting authority should consider the following factors: (1) variability of emissions from the unit in question; (2) likelihood of violation of the requirements; (3) whether add-on controls are being used for the unit to meet the emission limit; (4) the type of monitoring, process, maintenance,

or control equipment data already available for the emission unit; and (5) the type and frequency of the monitoring requirements for similar emission units at other facilities. *Id.*

As it stands now, the Proposed Permit's infrequent and intermittent compliance stack testing requirements will neither assure nor demonstrate compliance with the Plant's PM limitations, which are applicable on a continuous basis. Considering the afore-mentioned factors (1) and (3) together, the variability of emissions, especially as they relate to add-on controls used by Wheelabrator, strongly support more frequent stack testing and continuous PM monitoring from the Plant's CFB boiler. Wheelabrator employs a fabric filter baghouse as the means of controlling PM emissions from this unit. *See* Proposed Permit at 41. This control method, combined with the inherent variability of both the fuel burned in the Plant's CFB boiler and the properties of flyash particles, as well as potential factors affecting baghouse performance, create a potentially significant degree of variability in Wheelabrator's PM emissions. As a result, it is highly unlikely that an occasional measurement (e.g. biannual stack test) will accurately capture such variability and assure compliance with the unit's PM emission limit. Moreover, although secondary performance indicators (e.g. opacity and pressure differential) *may* indicate whether the baghouse is performing optimally, they will not necessarily assure compliance with the applicable continuous emission limit for PM. Only by continuously monitoring PM emissions from Wheelabrator will compliance with the applicable lbs/MMBtu particulate limit found in Permit Section D.I., Source 031, Condition #003 be assured. For Wheelabrator's CFB boiler, installation and operation of a continuous emissions monitoring system ("CEMS") for PM is the proper means of accurately monitoring such emissions, especially since, under factor (5) above, PM CEMS are increasingly employed for similar units at other facilities comparable to Wheelabrator. To assure compliance where emissions are variable, continuous direct monitoring of PM emissions is necessary.

In addition, stack tests are mere snapshots in time which do not indicate system performance during periods outside of the tests. As EPA is well aware, stack tests are scheduled well ahead of time. Sources equipped with add-on pollution controls such as baghouses, like Wheelabrator, have the opportunity to take advantage of that advance notice to perform work on their controls prior to testing in order to ensure favorable stack test results. Moreover, during stack tests, the Plant will presumably run its pollution control technology at full capacity to ensure the greatest emissions reductions, whereas normal operations may involve running those controls at reduced capacity. Hence, stack tests may not tell the public or regulatory agencies whether the source will be in compliance during the following multi-year period when the controls may once again be operating at a substandard level. Thus, the extreme infrequency of this already subpar testing method simply cannot assure compliance with the Plant's continuous PM emission limit.

At the very least, if direct continuous PM emissions monitoring is not required in the final permit, quarterly stack testing for the unit's PM emissions limits, combined with a more robust set of secondary performance indicator for the unit's fabric filter baghouse, must be required.

**V. This Issue Was Raised in Public Comments**

Sierra Club and EIP raised this issue in their October 11, 2017 comment letter submission on the proposed Title V permit renewal for Wheelabrator, noticed by DEP for a thirty-day public comment period on September 16, 2016. *See* Sierra Club and EIP Comments at 3-6.

**VI. The State Has Not Responded to Petitioners' Comments on this Proposed Permit**

On September 14, 2017, DEP provided to Petitioners a Response to Comments (“RTC”) document responding to similar comments Sierra Club and EIP submitted on the inadequacies of a 2016 version of this Proposed Permit. DEP has not yet provided an RTC document to Sierra Club and EIP responding to Petitioners’ comments regarding the deficiencies in this revised 2017 Proposed Permit.

**VII. Conclusion**

For the reasons set forth above, Sierra Club and EIP respectfully request that the Administrator of the U.S. EPA grant this Petition to Object.

Respectfully submitted,

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