BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF PIEDMONT GREEN POWER, LLC, BARNESVILLE, LAMAR COUNTY, GEORGIA PERMIT NO. 4911-171-0014-V-02-0 ISSUED BY THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION	PETITION NUMBER IV-2015-2 ORDER RESPONDING TO THE PETITIONER'S REQUEST THAT THE ADMINISTRATOR OBJECT TO ISSUANCE OF STATE OPERATING PERMIT

ORDER GRANTING PETITION FOR OBJECTION TO PERMIT

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated May 26, 2015 (Petition), from the Partnership for Policy Integrity (Petitioner) pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42. U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d). The Petition requests that the EPA object to the final operating permit No. 4911-171-0014-V-02-0 (Final Permit) issued by the Georgia Environmental Protection Division (Georgia EPD) to the Piedmont Green Power, LLC power generation facility in Barnesville, Georgia. The operating permit was proposed pursuant to title V of the CAA, CAA §§ 501-507, 42 U.S.C. §§ 7661-7661f, and the Georgia Compilation of Rules and Regulations (Ga. Comp. R. & Regs.) Rule 391-3-1-.03(10). *See also* 40 C.F.R. part 70 (title V implementing regulations). This type of CAA operating permit is also referred to as a title V or part 70 permit.

This Order contains the EPA's response to the Petition. Based on a review of the Petition and other relevant materials, including the Final Permit, the permit record, and relevant statutory and regulatory authorities, and as explained further below, the EPA grants in part and denies in part the Petition requesting that the EPA object to the Final Permit. Specifically, the EPA grants Claims 1 and 2, grants in part and denies in part claim 4, and denies the remainder of the claims.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(1) of the CAA, 42 U.S.C. § 766la(d)(1), requires each state to develop and submit to the EPA for approval an operating permit program that meets the requirements of title V of the CAA and the implementing regulations at 40 C.F.R. part 70. The EPA granted interim approval of Georgia's title V operating permit program on November 22, 1995 (60 Fed. Reg. 57836) and full approval on June 8, 2000 (65 Fed. Reg. 36358). 40 C.F.R. part 70, Appendix A. This program is codified in Ga. Comp. R. & Regs. Rule 391-3-1-.03(10).

All major stationary sources of air pollution and certain other sources are required to apply for title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable state implementation plan (SIP). CAA §§ 502(a) and 504(a), 42 U.S.C. §§ 7661a(a) and 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure sources' compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992). One purpose of the title V program is to "enable the source, States, the EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." *Id.* Thus, the title V operating permit program is a vehicle for ensuring that air quality control requirements are appropriately applied to facility emission units and for assuring compliance with such requirements.

B. Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to EPA-approved title V programs. Under CAA § 505(a), 42 U.S.C. § 766ld(a), and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to the EPA for review. Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the permit if the EPA determines that the permit is not in compliance with applicable requirements of the Act. CAA § 505(b)(1), 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c) (providing that the EPA will object if the EPA determines that a permit is not in compliance with applicable requirements or requirements under 40 C.F.R. part 70). If the EPA does not object to a permit on its own initiative, section 505(b)(2) of the Act and 40 C.F.R. § 70.8(d) provide that any person may petition the Administrator, within 60 days of the expiration of the EPA's 45-day review period, to object to the permit.

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting agency (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates to

the Administrator that a permit is not in compliance with the requirements of the Act. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also New York Public Interest Research Group, Inc. (NYPIRG) v. Whitman*, 321 F.3d 316, 333 n.11 (2nd Cir. 2003). Under § 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA. *MacClarence v. EPA*, 596 F.3d 1123, 1130-33 (9th Cir. 2010); *Sierra Club v. Johnson*, 541 F.3d 1257, 1266-67 (11th Cir. 2008); *Citizens Against Ruining the Environment v. EPA*, 535 F.3d 670, 677-78 (7th Cir. 2008); *WildEarth Guardians v. EPA*, 728 F.3d 1075, 1081-82 (10th Cir. 2013); *Sierra Club v. EPA*, 557 F.3d 401, 406 (6th Cir. 2009) (discussing the burden of proof in title V petitions); *cf. NYPIRG*, 321 F.3d at 333 n.11. In evaluating a petitioner's claims, the EPA considers, as appropriate, the adequacy of the permitting authority's rationale in the permitting record, including the response to comments (RTC) document.

The petitioner's demonstration burden is a critical component of CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2). As courts have recognized, CAA § 505(b)(2), 42 U.S.C. § 7661(b)(2), contains both a "discretionary component," to determine whether a petition demonstrates to the Administrator that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty to object where such a demonstration is made. *NYPIRG*, 321 F.3d at 333; *Sierra Club v. Johnson*, 541 F.3d at 1265-66 ("[I]t is undeniable [CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment whether a petition demonstrates a permit does not comply with clean air requirements."). Courts have also made clear that the Administrator is only obligated to grant a petition to object under CAA § 505(b)(2) if the Administrator determines that the petitioner has demonstrated that the permit is not in compliance with requirements of the Act. *See, e.g., Citizens Against Ruining the Environment*, 535 F.3d at 667 (stating § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object *if* such a demonstration is made") (emphasis added); *NYPIRG*, 321 F.3d at 334 ("[Section] 505(b)[2] of the CAA provides a step-by-step procedure by which objections to Draft Permits may be raised and directs the EPA to grant or deny them, *depending on* whether non-compliance has been demonstrated." (emphasis added)); *Sierra Club v. Johnson*, 541 F.3d at 1265 ("Congress's use of the word 'shall' … plainly mandates an objection *whenever* a petitioner demonstrates noncompliance.") (emphasis added). When courts review the EPA's interpretation of the ambiguous term "demonstrates" and its determination as to whether the demonstration has been made, they have applied a deferential standard of review. *See, e.g., Sierra Club v. Johnson*, 541 F.3d at 1265-66; *Citizens Against Ruining the Environment*, 535 F.3d at 678; *MacClarence*, 596 F.3d at 1130-31. A more detailed discussion of the petitioner demonstration burden can be found in *In the Matter of Consolidated Environmental Management, Inc. – Nucor Steel Louisiana*, Order on Petition Numbers VI-2011-06 and VI-2012-07 (June 19, 2013) (*Nucor II Order*) at 4-7.

The EPA looks at a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether the petitioner has addressed the state or local permitting authority's decision and reasoning. The EPA expects the petitioner to address the permitting authority's final decision, and the permitting authority's final reasoning (including the RTC document), where these documents were available during the timeframe for filing the petition. *See MacClarence*, 596 F.3d at 1132-33; *see also, e.g., In the Matter of Noranda Alumina, LLC*, Order on Petition No. VI-2011-04 (December 14, 2012) (*Noranda Order*) at 20-21 (denying title V petition issue where petitioners

did not respond to state's explanation in RTC or explain why the state erred or the permit was deficient); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 (June 22, 2012) (*2012 Kentucky Syngas Order*) at 41 (denying title V petition issue where petitioners did not acknowledge or reply to state's RTC or provide a particularized rationale for why the state erred or the permit was deficient). Another criterion the EPA examines is whether a petitioner has provided the relevant analyses and citations to support its claims. If a petitioner does not, the EPA is left to work out the basis for the petitioner's objection, contrary to Congress' express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive."); *In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 (September 21, 2011) (*Murphy Oil Order*) at 12 (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring). Relatedly, the EPA has pointed out in numerous orders that, in particular cases, general assertions or allegations did not meet the demonstration standard. *See, e.g., In the Matter of Luminant Generation Co. – Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 (January 15, 2013) (*Luminant Sandow Order*) at 9; *In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1*, Order on Petition Number VII-2004-02 (April 20, 2007) (*BP Order*) at 8; *In the Matter of Chevron Products Co., Richmond, Calif. Facility*, Order on Petition No. IX-2004-10 (March 15, 2005) (*Chevron Order*) at 12, 24. Also, if the petitioner does not address a key element of a particular issue, the petition should be denied. *See, e.g., In the Matter of Public Service Company of Colorado, dba Xcel Energy, Pawnee Station*, Order on Petition No. VIII-2010-XX (June 30, 2011) at 7-10; and *In the Matter of Georgia Pacific Consumer Products LP Plant*, Order on Petition No. V-2011-1 (July 23, 2012) at 6-7, 10-11, 13-14.

If the EPA grants an objection in response to a title V petition and the state responds to the objection by revising the terms or conditions of the permit or by supplementing the permit record, that response is treated as a new proposed permit for purposes of CAA section 505(b) and 40 C.F.R. §§ 70.8(c) and (d). *See Nucor II Order* at 14. As explained in the *Nucor II Order*, a new proposed permit in response to an objection will not always need to include new permit terms and conditions. For example, when the EPA has issued a title V objection on the ground that the permit record does not adequately support the permitting decision, it may be acceptable for the permitting authority to respond only by providing additional rationale to support its permitting decision. *Id.* at 14 n.10. The EPA has also explained that treating a state's response to an EPA objection as triggering a new EPA review period and a new petition opportunity is consistent with the statutory and regulatory process for addressing objections by the EPA. *Id.* at 14-15. The EPA's view that the state's response to an EPA objection is generally treated as a new proposed permit does not alter the procedures for making the changes to the permit terms or conditions or permit record that are intended to resolve the EPA's objection. When the permitting authority modifies a permit in order to resolve an EPA objection, it must go through the appropriate procedures for that modification. For example, when the permitting authority's response to an objection is a change to the permit terms or conditions or a revision to the permit record, the permitting authority should determine whether its response is a minor modification or a significant modification to the title V permit, as described in 40 C.F.R. § 70.7(e)(2) and (4) or the corresponding regulations in the state's EPA-approved title V program. If the permitting authority determines that the modification is a significant modification, then the permitting

authority must provide for notice and opportunity for public comment for the significant modification consistent with 40 C.F.R. § 70.7(h) or the state's corresponding regulations.

C. New Source Review

Applicable requirements for a new "major stationary source" or for a "major modification" to a major stationary source include the requirement to obtain a preconstruction permit that complies with applicable new source review (NSR) requirements. For major stationary sources, the NSR program is comprised of two core types of preconstruction permit programs. Part C of the CAA establishes the Prevention of Significant Deterioration (PSD) program, which applies to areas of the country that are designated as attainment or unclassifiable for a given national ambient air quality standard (NAAQS). CAA §§ 160–169, 42 U.S.C. §§ 7470–7479. Part D of the Act establishes the nonattainment NSR program, which applies to areas that are designated as nonattainment for a given NAAQS. Where it applies, the PSD program requires a major stationary source to obtain a PSD permit before beginning construction of a new facility or undertaking certain modifications. CAA § 165(a)(1), 42 U.S.C. § 7475(a)(1). Once subject to the PSD program, permitting authorities must address several requirements in issuing a permit, including: (1) an evaluation of the impact of the proposed new or modified major stationary source on ambient air quality in the area, and (2) the application of the Best Available Control Technology (BACT) for each pollutant subject to regulation under the Act. CAA §§ 165(a)(3), (4), 42 U.S.C. §§ 7475(a)(3), (4); 40 C.F.R. § 52.21(j), (k).

The EPA has two largely identical sets of regulations implementing the PSD program. One set, found at 40 C.F.R. § 51.166, contains the requirements that state PSD programs must meet to be approved as part of a SIP. The other set of regulations, found at 40 C.F.R. § 52.21, contains the EPA's federal PSD program, which applies in areas without a SIP-approved PSD program. The EPA has approved Georgia's PSD program into Georgia's SIP. *See* 40 C.F.R. §§ 52.570(c). As Georgia EPD administers a SIP-approved PSD program, for new major sources or major modifications that trigger PSD, the applicable requirements of the Act include complying with PSD requirements under the Georgia SIP. *See, e.g.*, 40 C.F.R. § 70.2.[1] In this case, the "applicable requirements" include Georgia's PSD provisions contained in Ga. Comp. R. & Regs. 391-3-1-.02(7) (state effective date 8/9/2012), as approved by the EPA into Georgia's SIP. *See* 40 C.F.R. §§ 52.570(c).

D. Relevant Factual and Legal Framework for Determining Major Source Status

Piedmont Green Power's title V Final Permit includes conditions designed to limit the facility's "potential to emit" (PTE) of hazardous air pollutants (HAPs), nitrogen oxides (NOx), and carbon

[1] Under 40 C.F.R. § 70.1(b), "[a]ll sources subject to [the title V regulations] shall have a permit to operate that assures compliance by the source with all applicable requirements." "Applicable requirements" are defined in 40 C.F.R. § 70.2 to include "(1) [a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the [Clean Air] Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in [40 C.F.R.] part 52; (2) [a]ny term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D, of the Act."

monoxide (CO) to below the thresholds that trigger applicability of certain regulatory requirements for major stationary sources. The purpose of the Final Permit's HAP PTE limits is to enable the facility to avoid applicability of major source requirements under CAA section 112.[2] The purpose of the Final Permit's CO and NOx PTE limits is to enable the facility to avoid PSD preconstruction permitting requirements under part C of Title I of the Clean Air Act. As discussed below in Section IV.B. and IV.C. of this order, several of the Petitioner's claims challenge the appropriateness and enforceability of the Final Permit's PTE limits for HAPs, CO, and NOx. The following information on the legal requirements governing such PTE limits is provided as relevant background for the EPA's response to Claims 2 and 3.

As an initial matter, consideration of whether a facility constitutes a "major stationary source" for PSD purposes depends on whether the facility emits or has the potential to emit certain pollutants in excess of specified thresholds: the threshold for sources within listed categories is 100 tons per year (TPY); for all other sources, including a biomass facility like Piedmont Green Power, the threshold is 250 TPY. *See* 42 U.S.C. § 7479(1) (defining "major emitting facility"); Ga. Comp. R. & Regs. R. 391-3-1-.02(7)(a)2. (iii) (Georgia's SIP-approved PSD regulations, state effective date August 9, 2012, which incorporate by reference the definition of "major stationary source" in the 2011 version of 40 C.F.R. 52.21(b)(1), with modification); 40 C.F.R. § 52.21(b)(1)(i) (defining "major stationary source" in the EPA regulations for PSD permits issued under the EPA's permitting authority). Under Georgia's federally approved SIP, the calculation of a facility's PTE for purposes of determining whether the facility triggers PSD requirements for a particular pollutant includes consideration of:

> [T]he maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical and operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable or enforceable as a practical matter. Secondary emissions do not count in determining the potential to emit of a stationary source.

Ga. Comp. R. & Regs. 391-3-1-.02(7)(a)2. (v) (Georgia's SIP-approved PSD regulations, state effective date August 9, 2012) (incorporating by reference the definition of "potential to emit" in the 2011 version of 40 C.F.R. 52.21(b), but modifying the definition by adding "or enforceable as a practical matter"); 40 C.F.R. § 52.21(b)(4) ("Potential to emit" definition in the EPA regulations for PSD permits issued under the EPA's permitting authority). Therefore, if a permit applicant agrees to enforceable limits that are sufficient to restrict its potential to emit a pollutant, the facility's potential to emit that pollutant is based on those limits. *In the Matter of Hu Honua*

[2] CAA section 112 distinguishes between major sources and "area sources" of HAPs. 42 USC § 7412(a)(1)-(2). Although maximum achievable control technology is required for all major sources of hazardous air pollutants, lesser controls or no controls may be required of area sources in a particular industry. *See id.* § 7412(d)(5). Based on Piedmont Green Power's agreement to limit its actual HAP emissions below the major source threshold, this Permit treats the facility's boiler as an area source under 40 CFR 63, Subpart A – "General Provisions," and Subpart JJJJJJ – "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources."

Bioenergy Facility, Order on Petition No. IX-2011-1 (Feb. 7, 2014) at 9 (*Hu Honua Order*); *In the Matter of Cash Creek Generation, LLC*, Order on Petition IV-2010-4 (June 22, 2012) at 15 (*Cash Creek Order*); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 (June 22, 2012) at 28 (*Kentucky Syngas Order*).[3]

Similarly, under the governing provisions of CAA § 112(a) and 40 C.F.R. § 63.2, the calculation of a source's potential to emit for purposes of determining whether the source triggers requirements for major stationary sources of HAP includes consideration of "any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed . . . if the limitation or effect it would have on emissions is federally enforceable."[4] *See also* Ga. Comp. R. & Regs. R. 391-3-1-.01(ddd) (state effective date October 14, 2014, setting forth the general definition of "potential to emit" in Georgia's SIP). "[I]f a permit applicant agrees to an enforceable limit that is sufficient to restrict PTE, the facility's PTE is calculated based on that limit." *Cash Creek Order* at 15; *Hu Honua Order* at 16.

Importantly, only limits that meet certain enforceability criteria may be used to restrict a facility's PTE, and the permit must include sufficient terms and conditions such that the source cannot lawfully exceed the limit. *See, e.g., Cash Creek Order* at 15 (explaining that an "emission limit can be relied upon to restrict a source's PTE only if it is legally and practicably enforceable" (emphasis added)); *In the Matter of Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC*, Order on Petition No. II-2001-05 (April 8, 2002) at 4–7 (2002 *Pencor-Masada Order*). One of the key concepts in evaluating the enforceability of PTE limits is whether the limit is enforceable as a practical matter. *See, e.g.*, 2002 *Pencor-Masada Order* at 4–7 (emphasizing the importance of practical enforceability in the permit terms and conditions that limit potential to emit). Moreover, the concept of "federal enforceability" has also been interpreted to encompass a requirement for practical enforceability. *See, e.g., In re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, 13 E.A.D. 357, 394 n.54 (EAB 2007). In order for an emission limit to be enforceable as a practical matter, the permit must clearly specify how emissions will be measured or determined for purposes of demonstrating compliance with the limit. *See, e.g., Hu Honua Order* at 10. Thus, limitations must be supported by monitoring, recordkeeping, and reporting requirements "sufficient to

---

[3] There is substantial body of EPA guidance and administrative decisions relating to PTE and PTE limits. *E.g., see generally*, Terrell E. Hunt and John S. Seitz, "Limiting Potential to Emit in New Source Permitting" (June 13, 1989); John S. Seitz, "Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act" (January 25, 1995); Kathie Stein, "Guidance on Enforceability Requirements for Limiting Potential to Emit through SIP and § 112 Rules and General Permits" (January 25, 1995); John Seitz and Robert Van Heuvelen, "Release of Interim Policy on Federal Enforceability of Limitations on Potential to Emit" (Jan. 22, 1996); *In re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, 13 E.A.D. 357 (EAB 2007); *In the Matter of Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC*, Order on Petition No. II-2001-05 (April 8, 2002) at 4–7.

[4] The definition of PTE for HAP in 40 C.F.R. § 63.2 includes the term "federally enforceable." Consistent with the court decisions, *National Mining Association v. EPA*, 59 F.3d 1351 (D.C. Cir.1995) and *Chemical Manufacturers Ass'n v. EPA*, 70 F.3d 637 (D.C. Cir. 1995), permit terms to limit HAP emissions must be federally enforceable. The term "federal enforceability" has also been interpreted to require practical enforceability. *See* John Seitz and Robert Van Heuvelen, "Release of Interim Policy on Federal Enforceability of Limitations on Potential to Emit" (January 22, 1995) at 2- 3.

enable regulators and citizens to determine whether the limit has been exceeded and, if so, to take appropriate enforcement action." 2002 *Pencor-Masada Order* at 7. Further, generally speaking, to effectively restrict a facility's PTE under the relevant major stationary source threshold, a permit's emission limits must apply at all times to all actual emissions, and all actual emissions must be considered in determining compliance with the respective limits. *Hu Honua Order* at 10–11; *Cash Creek Order* at 15; *Kentucky Syngas Order* at 29–30. Additionally, as the EPA has previously explained: "Although it is generally preferred that potential to emit limitations be as short-term as possible (e.g., not to exceed one month), the EPA guidance allows permits to be written with longer-term limits if they are rolled (meaning recalculated periodically with updated data) on a frequent basis (e.g., daily or monthly). "[EPA guidance also] recognizes that such longer rolling limits may be appropriate for sources with 'substantial and unpredictable variation in production.'" 2002 *Pencor-Masada Order* at 6. This type of rolling cumulative limit may be appropriate where the permitting authority determines that the limit, in combination with applicable monitoring, reporting, and recordkeeping, provides an assurance that compliance can be readily determined and verified. *See id.* at 6-7.

III. BACKGROUND

A. The Piedmont Green Power Facility

The Piedmont Green Power facility is located at 100 Legacy Park Drive in Barnesville, Georgia. The facility consists of a 60.5 megawatts steam-turbine generator powered by a 700 million British Thermal Units per hour (MMBtu/hr) circulating fluidized bed boiler, which fires "clean cellulosic biomass" as well as small quantities of biodiesel during startup, shutdown, and bed stabilization; a 1500 kilowatts biodiesel-fired emergency generator; and a 6,000 cubic feet Ash Storage Tank. The biomass-fired boiler is equipped with a baghouse for controlling particulate matter (PM) emissions and selective non-catalytic reduction for controlling NO_X.

B. Permitting History

Georgia EPD received the application and supplemental information for the Permit on June 28, 2013, and May 15, 2014, respectively. Georgia EPD issued the Final Permit (Permit No. 4911-171-0014-V-02-0) that is the subject of the Petition on April 10, 2015. The Final Permit is the initial title V permit for the Piedmont Green Power facility. The Final Permit incorporates the requirements of Piedmont Green Power's initial construction permit (Permit No. 4911-171-0014-E-01-0), which Georgia EPD issued on September 17, 2008, as well as requirements set forth in subsequent construction permit amendments (Permit Nos. 4911-171-0014-E-01-1 through -4), the last of which Georgia EPD issued on October 21, 2013. Georgia EPD Title V Application Review Report (hereinafter referred to as the "Statement of Basis"), at 2 (summarizing prior construction permits and revisions); Permit Condition 7.12 (identifying prior permits that are subsumed by the title V permit). The construction permit amendments addressed changes to the nameplate capacity of the boiler (and associated steam turbine), the fuels allowed during various stages of boiler operation, and the required air pollution control technologies.

C. Timeliness of Petition

Pursuant to the CAA, if the EPA does not object to the proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2). Thus, any petition seeking the EPA's objection to the proposed Piedmont Green Power permit was due on or before May 26, 2015. The Petitioner timely filed the Petition on May 26, 2015.

IV. EPA DETERMINATION ON THE ISSUES RAISED BY THE PETITIONER

Claim 1. The Permit Lacks Adequate Fuel Testing to Verify that it Consists Only of "Clean Cellulosic Biomass."

The Petition's first claim is found in Section IV. on pages 5-8.

Petitioner's Claim: The Petitioner claims that the Final Permit lacks adequate fuel testing, monitoring, and reporting requirements to ensure that Piedmont Green Power only burns clean cellulosic biomass. Petition at 5-8. The Petitioner asserts that Permit Condition 6.2.13 is inadequate to assure that Piedmont Green Power burns only clean cellulosic biomass, as required in Permit Condition 3.4.6. Petition at 6. In support of its assertion, the Petitioner states that 40 CFR 63.111222(a)(2) requires records of the type and amount of all fuels burned and that "the failure to ensure accurate fuel characterization defeats the basis for a synthetic minor permit." Petition at 5 and 7.

With regard to the requirements of 40 CFR 63.11222(a)(2), the Petitioner explains that it is necessary to record the type and amount of all fuel burned in the boiler because "the chemical makeup of the fuel is the primary determinant of which pollutants will be emitted in what quantities." Petition at 5. The Petitioner notes that clear and strict rules with respect to fuel testing, monitoring, and reporting are especially important for the Piedmont Green Power facility because "the permitted fuel stock is composed of materials with varying chemical constituents." *Id.*

In support of its assertion that the Final Permit does not include accurate fuel characterization for purposes of establishing that Piedmont Green Power is a synthetic minor source, the Petitioner specifically states that the requirement in Final Condition 6.2.13 that the facility keep records verifying that each shipment of biomass fuel received for combustion in the boiler meets the permit's definition of clean cellulosic biomass "suffers from two fatal deficiencies." *Id.* First, the Petitioner claims that Condition 6.2.13 "does not require Piedmont Green Power to conduct any fuel sampling or testing," but instead requires the facility to "maintain records of a one-page contract that its suppliers must sign." Petition at 7. *See also id.* at 6 ("The Permit places virtually no responsibility on PGP for assuring that the fuel burned at the Facility meets the definition of clean cellulosic biomass, and contains no means for EPD to verify contamination levels in fuels."). Second, the Petitioner claims that "Condition 6.2.13 places the compliance burden on Piedmont Green Power's (PGP's) suppliers, thereby shielding PGP in many ways from any penalties and other enforcement actions under the Act." *Id.* at 7. The Petitioner also states that

"EPD's failure to ensure accurate fuel characterization defeats the basis for a synthetic minor permit." *Id.* The Petitioner further claims that "the absence of any means of determining fuel contamination is exacerbated by the lack of any requirements in the Permit to monitor [HAP] emissions, and the treatment of the facility as a synthetic minor source for HAPs." *Id.* at 8.

The Petitioner contends, "[t]his facility could be burning demolition or construction waste containing highly contaminated materials leading to emissions of lead, mercury, arsenic, chromium, dioxins, and numerous organic HAPs like benzene and formaldehyde (both carcinogens) – but no one would ever know, because neither the fuel nor the emissions are tested for toxics." *Id.* at 8

The Petitioner concludes by claiming that a revised permit must "mandate sampling and laboratory testing for every fuel shipment used by PGP." *Id.*[5]

EPA's Response: For the reasons described below, the EPA grants the Petitioner's claim that the EPA must object to the Final Permit on the basis described in Claim 1 above.

Piedmont Green Power is considered a new source under 40 C.F.R. part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (Area Source Boiler NESHAP).[6] As a new biomass boiler with a heat input greater than 30 MMBtu/hr, the facility is subject to a PM emission limit of 0.03 lb/MMBtu. 40 C.F.R. 63 subpart JJJJJJ, Table 1. To demonstrate continuous compliance with this PM limit, the facility is required to "keep records of the type and amounts of all fuels burned." 40 C.F.R. § 63.11222(a)(2).

While the Draft Permit limited the facility to burn, with a limited exception, clean cellulosic biomass, it did not contain any monitoring or recordkeeping to ensure compliance with this operational limitation. In response to comments on the Draft Permit contending that the permit did not include fuel testing requirements to ensure that the facility does not burn contaminated wood, Georgia EPD explained that it "added a new condition requiring the verification of each shipment of biomass received for combustion in the boiler (New Condition 6.2.13) to make sure it complies with the definition of 'clean cellulosic biomass.'" Statement of Basis, Addendum at 5; *see also, id.*, Addendum at 8.[7]

Piedmont Green Power's Final Permit contains Permit Condition 3.2.2, which restricts the facility's HAP emissions to below the amount that would trigger regulatory requirements

---

[5] *See also, id.* at 22 (alleging that GA EPD cannot assure compliance with Conditions 5.2.5(b), 6.2.2(f) and 6.2.3(b) unless Piedmont Green Power samples and tests each fuel shipment to ensure that the fuel being burned at the facility actually meet's the Permit's definition of clean cellulosic biomass.); *see infra* for discussion on Claim 4.

[6] *See* Statement of Basis at 8-10; Final Permit Condition 3.1. Under the Area Source Boiler NESHAP, a new source is a source that commenced construction or reconstruction after June 4, 2010. 40 C.F.R. § 63.11194(c). Construction commenced on Piedmont Green Power after June 4, 2010. Statement of Basis at 8.

[7] The definition of "clean cellulosic biomass" that Georgia EPD has used in the Final Permit reflects the definition of "clean cellulosic biomass" found in 40 C.F.R. 241.2, part of the EPA's Non-Hazardous Secondary Materials Rule.

applicable to a "major source" of HAP under CAA section 112. As explained in more detail in Section II.D. of this Order, and in the EPA's response to Claim 2, this restriction must be enforceable as a practical matter. The requirement that the facility only burn "clean cellulosic biomass" except during periods of startup, shutdown, or bed stabilization, is a key component to ensure this restriction is practically enforceable by limiting potential HAP emissions from the facility.

The EPA finds that the Petitioner has demonstrated that the Final Permit does not contain adequate fuel testing, monitoring, and reporting requirements to ensure that Piedmont Green Power only burns clean cellulosic biomass. Specifically, the Final Permit does not include conditions sufficient to assure that the facility complies with the requirement in Permit Condition 3.2.3 that it fire only "clean cellulosic biomass" in the boiler (with the exception of firing biodiesel during startup, shutdown, and bed stabilization). The requirement in Permit Condition 6.2.13 that the Permittee "keep records verifying that each shipment of biomass fuel received for combustion in the boiler . . . meets the definition of clean cellulosic biomass in Condition 3.4.6" is insufficient to assure the source's compliance with the requirement in Permit Condition 3.2.3 that the boiler fire (with limited exceptions) only "clean cellulosic biomass." As the Petitioner points out, this recordkeeping requirement does not specify the methodology used to determine whether the biomass fuel used is in fact "clean cellulosic biomass." Nor does this permit specify when Piedmont Green Power must perform monitoring or what information Piedmont Green Power must include in the records that it must keep pursuant to Permit Condition 6.2.13.

The Final Permit authorizes Piedmont Green Power to burn clean cellulosic biomass. The type of fuel is a key component of determining Piedmont Green Power's HAP emissions. As explained in more detail in the EPA's response to Claim 2 and Section II.D. of this Order, to ensure HAP emissions remain below the major source threshold amounts, the HAP emission limits of Final Permit Condition 3.2.2 must be enforceable as a practical matter. Therefore, the facility's permit must require monitoring, recordkeeping, and reporting sufficient to assure that the biomass fired in the boiler is in fact "clean cellulosic biomass." Without such monitoring, recordkeeping, and reporting, the Final Permit does not assure that Piedmont Green Power would burn only "clean cellulosic biomass" as required by Permit Condition 3.4.6 and does not ensure that the HAP limits in Final Permit Condition 3.2.2 are enforceable as a practical matter. The Final Permit must identify the method that the facility will use to verify that the biomass fuel burned is clean cellulosic biomass. Furthermore, the Statement of Basis accompanying the permit must include a reasoned explanation for why the monitoring approach selected by Georgia EPD is sufficient to ensure that the facility complies with the fuel limitation in the permit.

For the reasons described above, the EPA grants the Petitioner's claim that the EPA must object to the Final Permit on the basis described in Claim 1 above.

EPA's Direction: Georgia EPD must revise the Final Permit to incorporate monitoring, recordkeeping, and reporting sufficient to assure that any biomass fired in Piedmont Green Power's boiler qualifies as clean cellulosic biomass in accordance with Permit Condition 3.2.3. While Georgia EPD has discretion to select appropriate monitoring, Georgia EPD must provide a reasoned explanation in the revised Permit's Statement of Basis for why the selected monitoring,

recordkeeping and reporting requirements are adequate to ensure that only allowed fuels are fired in the boiler. As explained in Section II. B. of this Order, when the permitting authority modifies a permit in order to resolve an EPA objection, it must go through the appropriate procedures for that modification, including notice and opportunity for public comment on significant modifications.

In responding to this Order, Georgia EPD may consider requiring Piedmont Green Power to burn only "clean dry biomass" and to utilize the fuel analysis test methods specified in 40 C.F.R. part 63, Subpart DDDDD, Table 6. As explained further in the EPA's response to Claim 2, this approach could help to ensure that the HAP emission limits of Final Permit Condition 3.2.2 are enforceable as a practical matter.

Claim 2: The Permit Provisions Limiting the Facility's Annual Mass Emissions of any Individual HAP to 10 tons, and Total HAPs to 25 tons, are Unenforceable as a Practical Matter and Do not Comply with the Act.

The Petition's second claim is found in Section V. on pages 8-15.

Petitioner's Claim: According to the Petitioner, biomass "includes a wide variety of materials that can contain highly variable concentrations of HAPs and their precursors." Petition at 9. The Petitioner further notes: "Natural cellulose contains chlorine, which is emitted as gaseous hydrochloric acid (HCl) at a relatively high rate. Processed and treated wood often contains paint residue, arsenic, chromium, and other chemicals that result in HAP emissions." *Id.* The Petitioner states: "To fully ensure that the public is protected, the emissions of HAPs should be monitored continuously, because grab sample testing cannot assure that the Major Source triggers are not exceeded with such a variable fuel stock." *Id.* As more fully described below, the Petitioner alleges that the "provisions in the permit for limiting the Facility's annual mass emissions of any individual HAP to 10 tons, and total HAPs to 25 tons, are unenforceable as a practical matter [and] do not comply with the Act." *Id.*[8]

The Petitioner contends that the Final Permit's HAP emission limits are unenforceable as a practical matter because Georgia EPD has failed to provide "justification for its apparent conclusion that HCl is the only HAP likely to be emitted from th[e] facility." Petition at 10. The Petitioner alleges that HAPs reasonably anticipated to be emitted from PGP include not only HCl, but also various volatile organic compounds (e.g., benzene and formaldehyde), numerous semi-volatile compounds (e.g., PAHs such as benzo(a)pyrene), acrolein, and trace metals. *Id.* at 9-10.

The Petitioner claims that the Final Permit's HCl-specific provisions suffer from two flaws, which render the provisions unenforceable as a practical matter. Petition at 11. First, the Petitioner contends that "data on which EPD relies to establish PGP's synthetic minor status are suspect." *Id.* Specifically, the Petitioner explains that PGP attempted to demonstrate its

[8] Final Permit Condition 3.2.2 provides that "The Permittee shall not discharge or cause the discharge into the atmosphere from the entire facility any single hazardous air pollutant which is listed in Section 112 of the Clean Air Act, in an amount equal to or exceeding 10 tons during any twelve consecutive months, or any combination of such listed pollutants in an amount equal to or exceeding 25 tons during any twelve consecutive months."

compliance with the HCl limit with two stack tests conducted in 2013. *Id.* Describing the results of the two stack tests, the Petitioner alleges that "the veracity of these tests is undermined by the untenable conclusion that the Facility is able to emit fewer HCl emissions *without* [sorbent injection] in June 2013 than were emitted *with* [sorbent injection] in place in March of 2013." *Id.* (emphasis in original). The Petitioner raises concerns related to the HCl emission factor reported by the June 26, 2013, emissions test (0.00006 lb/MMBtu), and relied upon in the Final Permit to demonstrate compliance with the HAP limits on potential to emit. The Petitioner claims that this emission factor "is a mere 37.5% of the value at the tenth percentile of the HCl emissions data collected by EPA in support of the boiler rule . . . and lower than any of the measurements for the valid data points in the EPA database." *Id.* at 12. According to the Petitioner, the test results "raise significant questions regarding the fuel(s) that were used during testing, since no fuel chlorine characterization data are available in the record." *Id.* at 14. The Petitioner alleges, "reasonable assumptions on the chlorine content of wood lead to unrealistically high removal efficiencies (without sorbent injection) based on the June 2013 test results." *Id.* The Petitioner concludes, "The technical accuracy of these figures is highly suspect, and, at the very least, requires additional justification, particularly since the facility is permitted to burn a wide variety of fuels with potentially varying chlorine content." *Id.*

Second, the Petitioner claims that the HCl monitoring and reporting requirements are inadequate because they "depriv[e] the public of any assurances whatsoever that the emissions limits are being met . . . and that the Facility is not a Major Source." *Id.* According to the Petitioner, "[t]he required tests are far too infrequent to ensure ongoing compliance with the Act." *Id.* at 13. The Petitioner claims that "[f]ederal regulations make clear that monitoring and reporting requirements must match the time period over which an emission limitation is measured." *Id.* The Petitioner contends that a decision by the U.S. Court of Appeals for the D.C. Circuit states that annual testing cannot assure compliance with a daily emission limit. *Id.* (citing to *Sierra Club v. EPA*, 536 F.3d 673, 677 (D.C. Cir. 2008). The Petitioner asserts that due to the lengthy amount of time between HCl stack tests, "it is virtually impossible for PGP to track HAPs emissions as 'required' by Condition 6.2.14 or inform EPD when the Facility reaches the specific thresholds as required by Condition 6.2.15." *Id.* at 14. The Petitioner states: "The Facility must have the ability (and duty) to quantify the mass of HCl emissions under all operating conditions, and being able to sum mass emissions over desired time periods when plant operations, and then emissions, are variable." *Id.* at 15.

According to the Petitioner, "[t]he paucity of monitoring requirements for HAPs renders the Final Permit's recordkeeping and reporting requirements impotent." Petition at 13. Specifically, the Petitioner notes Piedmont Green Power is not required to test for any HAPs other than HCl. *Id.* at 13-14.

The Petitioner expresses concern that "the Permit fails to even reference, let alone include, legally adequate emissions limitations, monitoring, recordkeeping and reporting requirements for Volatile Organic Compounds (VOCs), many of which are HAPs." Petition at 10 (emphasis in original). The Petitioner contends: "They must either provide a reasoned and data supported explanation for why VOCs are not emitted in sufficient quantities to warrant specific terms and

conditions, or alternatively, to set VOC PTE limits and include terms and conditions to assure compliance with those limits. *Id. Id.*[9]

EPA's Response: For the reasons described below, the EPA grants the Petitioner's claim that the EPA must object to the Final Permit on the basis described in Claim 2 above.

The EPA grants the Petitioner's Claim 2 because the Petitioner demonstrated that Condition 3.2.2, which prohibits the Piedmont Green Power facility from emitting 10 or more tons of any single HAP or 25 or more tons of any combination of HAPs during any 12 consecutive months, is not enforceable as a practical matter.

The purpose of the HAP emission limits in Condition 3.2.2 is to restrict the facility's HAP emissions to below the amount that would trigger regulatory requirements applicable to a "major source" of HAP under CAA section 112. *See* CAA § 112(a)(1), 42 U.S.C. 7412(a)(1) (defining "major source" as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants."). Because Piedmont Green Power has agreed to accept these limits on the facility's PTE, an EPA objection is warranted if the Final Permit does not impose limits on the facility's PTE that are enforceable as a practical matter. *See supra* at II.C (describing legal requirements governing limits on potential to emit). *See also Hu Honua Order* at 9–10; *Cash Creek Order* at 15; *Kentucky Syngas Order* at 29.

The Draft Permit that went out for public comment did not include any permit conditions requiring Piedmont Green Power to perform monitoring, recordkeeping, or reporting to demonstrate compliance with the HAP emission limits in Condition 3.2.2. In response to public comments expressing concern over the absence of such compliance assurance provisions, Georgia EPD added several conditions to the Final Permit. First, Georgia EPD added Permit Condition 6.2.14, which requires Piedmont Green Power to keep monthly HAP emission records using a specified equation for performing emissions calculations. This Condition establishes an emission factor for use in calculating HCl emissions based on the June 26, 2013, stack test (0.00006 lb/MMBtu) and states that the emission factor for HAP other than HCl is "as approved by the Division based on NCASI or AP-42 emission factors."

Second, Georgia EPD added Permit Condition 6.2.15, which requires the Permittee to use the records required in Permit Condition 6.2.14 to determine monthly emissions of combined HAPs and the total monthly emissions of each HAP from the entire facility and maintain these calculations as part of the monthly record suitable for inspection or submittal. This condition further states that the Permittee shall notify Georgia EPD if monthly emissions exceed 0.83 tons for an individual HAP or total HAPs exceed 2.08 tons for a month.[10]

---

[9] Later in the Petition, the Petitioner specifically alleges that Permit Condition 3.2.2 is not federally or practically enforceable because the associated testing and monitoring requirements do not include any testing for HAPs other than HCl, making it impossible for GA EPD to determine compliance. Petition at 22; *see infra at 24.*

[10] The EPA observes that these values are slightly below 1/12th of the annual major source thresholds of 10 tons and 25 tons.

The EPA finds that the addition of Conditions 6.2.14 and 6.2.15 to the Final Permit is insufficient to make the HAP emission limits in Condition 3.2.2 enforceable as a practical matter. Specifically, neither Condition 6.2.14 nor any other permit condition identifies which HAP other than HCl are to be included in the monthly emissions calculation. Without a clear identification in the Final Permit of which HAP other than HCl must be included in the required monthly emission calculation and without a clearly identified method for determining monthly emissions for each such HAP,[11] the limitations on individual HAP and total HAP emissions are legally and practically unenforceable. Therefore, the EPA objects to the Final Permit on the basis that the Final Permit and Final Permit Record are inadequate to ensure that the HAP emission limits in Condition 3.2.2 enforceable as a practical matter.

EPA's Direction: Georgia EPD can respond to this objection by revising the Final Permit to ensure that the emission limitations of Permit Condition 3.2.2 are both legally enforceable and enforceable as a practical matter. In the first instance, the Final Permit must identify which HAP other than HCl must be considered in determining whether individual and total HAP exceeded 10 and 25 tons respectively during any 12 consecutive month period. Secondly, the Final Permit must include adequate testing, recordkeeping, reporting, and monitoring to ensure that the individual and total HAP emission limits are enforceable as a practical matter.

One approach that Georgia EPD could consider for determining compliance with the HAP emission limits would be to utilize the fuel sampling test methods set forth in 40 C.F.R part 63, Subpart DDDDD, Table 6. Such fuel sampling could determine HAP emissions for each type of biomass fired in the facility's boiler. In addition, because moisture can significantly impact the amount of HAP emissions generated by firing biomass, Georgia EPD may consider incorporating into the Final Permit the Subpart DDDDD approach of limiting the facility to firing only "clean *dry* biomass." *See* 40 C.F.R. § 63.7575 (defining "Clean dry biomass" as "any biomass-based solid fuel that have not been painted, pigment-stained, or pressure treated, does not contain contaminants at concentrations not normally associated with virgin biomass materials and *has a moisture content of less than 20 percent* and is not a solid waste." (emphasis added)).

If Georgia EPD decides to continue utilizing emission factors to determine HAP emissions, the permit record must support the selected emission factors, i.e., Georgia EPD must explain how the emission factor selected for each HAP, including HCl, adequately accounts for variable HAP emissions depending upon the type of biomass fired.[12] Regardless of the approach selected for

[11] To the extent that the Petitioner argues that 40 C.F.R. § 63.11212(c) requires a performance test in order to "establish its operating limits," Petition at 10, the Petitioner has not demonstrated that this is required and that therefore there is a flaw in the permit. The EPA observes that 40 C.F.R. § 63.11212(c) does not require a facility to perform a stack test. Instead, that provision sets out general requirements governing stack tests *when* required under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boiler Area Sources, 40 C.F.R. part 63, subpart JJJJJJ. Additionally, to the extent that the Petitioner claims that a VOC limit is required, the EPA observes that the Petitioner has not explained why such a limit is required or that there is a flaw in the permit. The EPA observes that the Petitioner did not raise this objection with reasonable specificity during the public comment period and has not provided the necessary legal or technical analysis to demonstrate that a VOC limit is necessary to ensure that the HAP limits are enforceable as a practical matter.

[12] While not raised by the Petitioner, the EPA observes that Georgia EPD appears to have inadvertently omitted language from Condition 6.2.15 requiring the Permittee to use the monthly emissions records required by Condition 6.2.14 to determine and record the rolling 12 consecutive month total emission rate, in tons, of individual HAP

determining compliance with the HAP emission limits, Georgia EPD must provide a reasoned explanation in the Final Permit's Statement of Basis for how the chosen approach makes the HAP limits enforceable as a practical matter for all HAP emitted from the facility, including HCl.

In responding to the EPA's objection to the overall unenforceability of the HAP emission limits in Condition 3.2.2, Georgia EPD may or may not decide to continue with the current approach of requiring the Permittee to use an equation and emission factors to determine compliance. Thus, Georgia EPD's response to the EPA's overall objection to the enforceability of the HAP emission limits may obviate the specific concerns raised in the Petition regarding HCl monitoring, including the adequacy of the HCl emission factor. Therefore, the EPA is not resolving the Petitioner's claims related to the permit's provisions concerning HCl emissions in this Order.[13] The public will have an opportunity to raise concerns regarding compliance monitoring associated with the HAP limits, including concerns regarding HCl, when Georgia EPD issues permit revisions in response to this Order for public comment.

Claim 3: The Facility is a Major Source for NOx and CO, and the Permit's Limitations on Potential to Emit NOx and CO Are Not Practically Enforceable.

The Petition's third claim is found in Section VI. on pages 15-20.

Petitioner's Claim: The Petitioner generally makes two interrelated arguments regarding alleged inadequacies in the Final Permit's PTE limits for NOx and CO. First, the Petitioner claims that historical data show that Piedmont Green Power's potential to emit "has been in excess of 249 TPY for both NOx and CO." Petition at 15-17. Second, the Petitioner claims that the limits on NOx and CO are not practically enforceable. *Id.* at 17-21

For the first argument, the Petitioner calculates that hourly NOx and CO emissions from the boiler cannot exceed 56.849 pounds per hour if the unit is to achieve the 249 TPY limit in Condition 3.2.1. Petition at 15. The Petitioner then translates this hourly emissions rate to 0.0812

---

emissions and individual HAP emissions from the entire facility. Insofar as Georgia EPD chooses to retain this permit condition, Georgia EPD should correct this omission.

[13] While the EPA is not resolving the Petitioner's HCl-specific claims in this Order, the EPA observes that the Petitioner's claim that there was significant variability in the facility's performance test runs focuses on the March 2013 test, not the June 2013 test Georgia EPD relied upon to establish the HCl emission factor. In addition, the EPA observes that the Petitioner's claim regarding inadequacy of the HCl emission factor does not consider the EPA's longstanding policy of preferring emission factors based on site-specific testing to emission factors from averages or industry-wide calculations. For instance, the Petitioner questions the technical accuracy of the site-specific emission factor for HCl by comparing it to factors from other sources in the industry or average values, but not pointing to any flaw in testing methodology or execution. Further, the EPA observes that the database the Petitioner cites only includes major sources of HAPs and Piedmont Green Power's emissions were not included in the database. The Petitioner has not provided an explanation for why comparison to emissions from those sources is appropriate in assessing the technical accuracy of emissions from Piedmont Green Power. Finally, the EPA observes that in claiming that the monitoring, recordkeeping, and reporting for HCl were inadequate, the Petitioner did not consider the monitoring of hours of operation, recordkeeping, or compliance demonstration that Georgia EPD included in the Final Permit.

lb/MMBtu for both CO and NOx. *Id.*[14] According to the Petitioner, historical monitoring data show that the facility has been exceeding this 0.0812 lb/MMBtu emission rate for both CO and NOx. Thus, the Petitioner contends that Georgia EPD's determination that Piedmont Green Power can meet the Final Permit's PTE limits for NOx and CO in Condition 3.2.1. is "technically unsubstantiated" and warrants the EPA's objection to the Final Permit *Id.*
In support of this argument, the Petitioner first points to facility monitoring data from June 2013 through April 2014. Petition at 16. According to the Petitioner, this monitoring "shows hourly emission rates for NOx up to 136.5 lb/hr, and for CO up to 624.9 lb/hr." *Id.* at 15-16. The Petitioner claims that the monthly summed emission rates during this time would be even higher except that hourly emission data with "zero" values were improperly included from the calculation. *Id.* at 16-17.

The Petitioner also points to stack tests from 2014 and 2015 showing that the facility was exceeding the derived emission rate limit of 0.0812 lb/MMBtu. *Id.* at 17. Likewise, the Petitioner points to a February 25, 2015, source test showing hourly NOx emission rates ranging "from about 62 lb/hr to 73.5 lb/hr, well in excess of the rate to justify PSD avoidance." *Id.* The Petitioner also claims that these same tests show that the facility's continuous emissions rate monitoring systems (CERMS) for NOx and CO "consistently underestimate the reference method readings." *Id.*

The Petitioner contends that "[t]he Facility's difficulties in meeting emissions limits are known to [Georgia] EPD." *Id.* In particular, the Petitioner points to Georgia EPD's February 2014 source test report, which states that "12-month rolling emissions (of CO) will be close to the 249 tpy limit in March, April and May of this year." *Id.* According to the Petitioner, that statement indicates that Georgia EPD was "anticipating, months ahead, that the Facility would not be able to meet its limit." *Id.* The Petitioner also points to "self-reported exceedances of its monthly limits in May and August of 2014." *Id.*

The Petitioner's second argument is that the emission limits for NOx and CO are not enforceable as a practical matter because Georgia EPD "lack[ed] the data necessary to accurately evaluate an air permit application and determine compliance with all applicable requirements." Petition at 17. The Petitioner argues that the EPA's guidance "requires technical accuracy as a concept in 'practical enforceability.'" *Id.* at 18. The Petitioner argues that Georgia EPD lacked information to "render a technically accurate" determination that Piedmont Green Power could "meet synthetic minor emission limits for NOx and CO, and has not crafted practically enforceable permit conditions." *Id.*

In support of this argument, the Petitioner first alleges that based on Petitioner's "best information" Piedmont Green Power has "never completed performance stack tests for NOx and CO in accordance with federal regulations," citing 40 C.F.R. 63.11212(c). Petition at 18. The Petitioner alleges that the testing done by Piedmont Green Power has been "conducted at varying operating load conditions, and without assuring that fuel used during those tests represents the highest emission potential for each pollutant." *Id.* According to the Petitioner, without these

[14] The Petitioner notes that because the boiler is not the only source at the facility that emits CO and NOx, the boiler will "have to achieve rates lower than this if 'the entire facility' is to legally avoid PSD." Petition at 15.

tests, Georgia EPD and Piedmont Green Power cannot "assert to have a realistic assessment" of the facility's potential to emit NOx and CO.

The Petitioner explains that they commented to Georgia EPD that "the facility must emit on average less than 0.0812 pounds . . . per MMBtu." Petition at 19. The Petitioner notes that Piedmont Green Power responded to the public comments by stating that the average NOx emissions during the third quarter of 2014 was 0.075 lb/MMBtu and that the facility would "be able to comply with the Facility's NOx limit." *Id.* The Petitioner alleges that there are "gaps" in their data, described as "periods during which the boiler appears to be operating but the NOx emissions rate is recorded as zero." *Id.* The Petitioner also contends that the monitoring results include periods where "the daily NOx mass is recorded as zero, and the rate is recorded at about one-tenth of the normal emission rate." *Id.* The Petitioner claims that to arrive at the 0.075 lb/MMBtu value, Piedmont Green Power improperly averaged all of the data, including the minimal and zero readings. *Id.*

The Petitioner next questions whether testing data support that Piedmont Green Power can meet the CO limits. The Petitioner mentions earlier referenced data showing CO emissions "above the rates required to maintain synthetic minor status." Petition at 20. The Petitioner claims that "frequent gaps in monitoring data, the failure to test with a representative variety of fuels, the failure to assess emissions during startup/shutdown suggest [that it is] improbable" that PGP can meet the CO potential to emit limits. *Id.* The Petitioner urges the EPA "to require that EPD document why it believes this source can consistently achieve the rates it reports and stay within the 249 tpy synthetic minor source limit." *Id.* According to the Petitioner, "based on a thorough review of this and comparable facilities" that the "rates set for PGP are unrealistically low." *Id.*

Additionally, the Petitioner claims that emissions data from the third quarter of 2014 fail to account for boiler start-up and shutdown emissions. Petition at 20. Moreover, the Petitioner questions how PGP calculated flow rates for their testing. The Petitioner notes that Method 2 is specified as an appropriate method, but notes that the facility "instead relied on CERMS concentration data and multiplies those by F-Factors to determine NOx and CO emissions." *Id.* at 21. The Petitioner claims that because of the "wide variability of fuel composition," the use of F-Factors is "entirely inappropriate, and legally indefensible absent additional information." *Id.* The Petitioner "urge[s] EPA to require that the CERMS be equipped with a continuous stack gas flow meter." *Id.*

EPA's Response: For the reasons described below, the EPA denies the Petitioner's claim that the EPA must object to the Final Permit on the basis described in Claim 3 above.

Pursuant to CAA 505(b)(2), a petition "shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting agency (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objections arose after such period)." 42 U.S.C. § 7661(b)(2). The arguments that the Petitioner makes in the Petition to support this claim were not raised with reasonable specificity in

comments on the Draft Permit.[15] Specifically, the following objections were not raised with reasonable specificity in comments on the Draft Permit: (1) the argument that the monitoring data from June 2013 to April 2014 stack tests, Georgia EPD's February 2014 source test report, and the facility's reports of exceeding monthly emission rates for May and August of 2014, demonstrate that the facility has not been maintaining NOx and CO emissions below the Final Permit's limitations on potential to emit; (2) the argument that source testing in 2014 showed that the facility's NOx and CO CERMS underestimate the reference method readings, (3) the argument that Piedmont Green Power failed to perform a federally required stack test (as allegedly required under 40 C.F.R. 61.11212(c)); (4) the argument that Piedmont Green Power's calculation of its average emissions based on CEMS date from the third quarter of 2014 is flawed because it includes zero values, ignores data gaps, and excludes startup, shutdown, and malfunction emissions;[16] and (5) the argument that emissions calculations utilizing the facility's NOx and CO CERMS are unreliable because the facility inappropriately utilizes F-factors to translate the CERMS concentration data into NOx and CO emissions data.

The Petitioner does not claim, and therefore has not demonstrated, that it was impractical to raise these objections during the public comment period. Nor is there any indication or argument that the grounds for these objections arose after the public comment period. Therefore, the EPA denies the petition with respect to Claim 3 on the ground that the Petitioner failed to raise its objections with reasonable specificity during the public comment period.

Alternatively, for the reasons described below, the EPA denies the Petitioner's claim that the EPA must object to the permit on the basis described in Claim 3 above. The Petitioner has not demonstrated either that Piedmont Green Power will be unable to comply with the 249 tpy limits on CO and NOx set forth in Condition 3.2.1 or that these limits are unenforceable as a practical matter. Therefore, the Petitioner has not demonstrated that these limits are not practically enforceable limits on Piedmont Green Power's potential to emit CO and NOx.

Condition 3.2.1 prohibits Piedmont Green Power from emitting more than 249 tons of NOx or CO during any 12 consecutive months. To assure that the facility complies with these limits, the Final Permit requires that the facility utilize a CERMS to measure hourly emissions of NOx and CO (Condition 5.2.1), keep records tracking monthly and 12-month rolling total emissions for NOx and CO (Condition 6.2.6 and 6.2.7), and report emissions above the limits (Condition 6.1.7(b)). The Final Permit also requires Piedmont Green Power to notify Georgia EPD when facility-wide emissions of NOx or CO exceed 20.75 tons per month (Condition 6.2.16).[17] Any such notification must include an explanation of how the Permittee intends to maintain

[15] While the comments made to Georgia EPD on the Draft Permit did include claims that the limits on potential to emit NOx and CO were not enforceable, those arguments focused on a 2013 Zachary stack test, not the arguments summarized above.

[16] The Petitioner did present Georgia EPD with the claim that the NOx and CO limits are unenforceable because the Permit authorizes Piedmont Green Power to exclude startup, shutdown, and malfunction emissions from its compliance demonstration. *See* PFPI Comments at 3. In this petition claim, however, the Petitioner argues that the *monitoring data* are faulty because they exclude startup, shutdown, and malfunction emissions; this objection was not presented to EPD during the public comment period. The Petitioner's claim that the Permit allegedly authorizes Piedmont Green Power to exclude startup, shutdown, and malfunction emissions from the facility's emissions calculation for purposes of showing compliance with the Permit's synthetic minor limits is addressed *infra* at 30-31.

[17] The EPA notes that this is 1/12th of the 249-ton limit on NOx and CO.

compliance with the applicable emissions limit in Condition 3.2.1. *Id.* Any NOx or CO emissions above 249 tons during a consecutive 12-month period would violate Condition 3.2.1 and be grounds for enforcement by the EPA, Georgia EPD, or the public. *See* Condition 8.3.1. Moreover, the purpose of these limits is to allow Piedmont Green Power to avoid the PSD permitting requirements for major sources; accordingly, NOx or CO emissions in excess of the 249 tpy PTE limit also would be a PSD violation.

As summarized above, the Petitioner's first argument in Claim 3 is that historical stack test and monitoring data indicate that Piedmont Green Power's NOx and CO emissions exceed the Final Permit's PTE limits and that Georgia EPD therefore lacks an adequate technical basis for concluding that the facility can achieve these limits. The EPA concludes that the Petitioner has not demonstrated that Georgia EPD lacks an adequate technical basis for concluding that Piedmont Green Power can comply with the Final Permit's 249 tpy PTE limits for CO and NOx.

The Petitioner's argument that historical monitoring data and stack tests show that the facility will not comply with the NOx and CO limits is based primarily on the Petitioner's contention that the facility cannot meet the annual limits if the facility's short-term emissions rate exceeds 0.0812 lb/MMBtu.[18] However, the Petitioner does not contend that the Final Permit actually includes the 0.0812 lb/MMBtu limit or identify a legal requirement that Georgia EPD include this short-term emissions rate in the Final Permit for purposes of limiting potential to emit to avoid PSD applicability.[19] As explained above, while short-term PTE limits are preferred, a longer-term limit can be enforceable as a practical matter if it is rolled on at least a monthly basis. *Supra* at II.C.

The Petitioner also provides no analysis demonstrating that emissions in excess of these derived short-term rates necessarily would lead to the facility exceeding the Final Permit's NOx and CO limits of 249 tons per consecutive 12-month period. Presumably, the Petitioner is assuming that the facility will run a full 8,760 hours per year at the highest rates that the Petitioner identifies, which would lead to NOx and CO emissions in excess of the 249 tons per year limit. However, the Petitioner does not provide a legal or technical basis for this assumption. The Petitioner also offers no rebuttal to Georgia EPD's response to comments on the Draft Permit, in which Georgia EPD explained that the facility does not plan to operate 8,760 hours per year. Statement of Basis, Addendum at 3. Georgia EPD further noted that it added a requirement to the Final Permit that Piedmont Green Power notify Georgia EPD "to detect month-to-month increases in NOx or CO emissions over time." Statement of Basis, Addendum at 3; *see id.*, *see also* Condition 6.2.16. If monthly emissions are above 20.75 tons, Piedmont Green Power must notify Georgia EPD and

[18] The Petitioner does not explain how these values were derived but it appears the Petitioner converted the consecutive 12-month limits of 249 tons into short-term hourly mass and efficiency rates. Dividing 249 TPY by 8,760 hours per year and then multiplying by 2000 pounds per year results in a value of 56.849 pounds per hour. Taking this value and then dividing by 700 MMBtu/hr (Which is the capacity of the facility) results in a value of 0.0812 lb/MMBtu.

[19] To the extent that the Petitioner argues that monthly emissions of NOx and CO have previously exceeded what the Petitioner characterizes as PGP's "monthly synthetic minor emission limits," this argument misunderstands the purpose of Condition 6.2.16. This provision does not create a monthly limit. Rather, it requires reporting to EPD if NOx or CO monthly emissions exceed 20.75 tons (one-twelfth of the facility's consecutive 12-month limit of 249 tpy of CO or NOx), so that Georgia EPD can ensure that the facility takes necessary steps to ensure that it does not exceed the 12-month limits.

include an explanation for how the facility intends to achieve compliance with the 12-consecutive-month limit. Condition 6.2.16. The EPA observes that, at a minimum, the facility could elect to curtail its operations in the event that short-term emissions indicate a risk of exceeding the rolling-12-month NOx and CO emission limits. Furthermore, as Georgia EPD indicated, the boiler is not intended to operate at full load for the entire year. For instance, the boiler may be shut down for maintenance or repair or when not needed to generate electricity, during which time there would be no or minimal emissions from the boiler. In sum, regardless of whether monitoring results indicate that the facility has historically exceeded a short-term emissions rate of 0.0812 lb/MMBtu, the Petitioner has not demonstrated that this would mean that the facility will not or cannot comply with the 249 TPY potential to emit limits for CO and NOx.

In addition, the EPA notes that the Petitioner has not provided sufficient support for the claim that the facility's hourly emissions data from June 2013 to April 2014 are unreliable because "zero" values were improperly included in monthly mass emission rates. *See* Petition at 16. According to the Petitioner, these "zero" readings occurred during times that the boiler was operating, as indicated by the fact that the data show that the boiler was producing steam during those periods. Petition at 16-17. As noted above, comments on the Draft Permit did not raise this issue and therefore the EPA does not have the benefit of Georgia EPD's response. However, the EPA observes that it is possible for steam to be released from a boiler when it is not operating. For example, Petitioner's Exhibit 13, which provides hourly data on heat input to the boiler, steam generated, and CO and NOx emissions, contains data on multiple boiler shutdown events. During such shutdown events, the heat input to the boiler is reduced to zero yet the boiler continues to vent steam for a period of time following the discontinuation of fuel input as it cools down. Because no combustion is occurring, no CO or NOx emissions are being generated. The Petitioner does not provide any information demonstrating that emissions of CO and NOx were not properly accounted for during the periods at issue. Therefore, the EPA concludes that the Petitioner has not demonstrated that Piedmont Green Power improperly included zero emissions data in its monthly mass calculations for such time periods. *See Luminant Generating Co.* at 9.

The Petitioner's final argument for why historical emissions data show that the facility has not been maintaining NOx and CO emissions below 249 tpy is that a Georgia EPD source test report states that "12-month rolling emissions (of CO) will be close to the 249 tpy limit in March, April and May of [2014]," and that Piedmont Green Power in fact "self-reported" exceedances of its monthly limits in May and August of 2014. Petition at 17. As noted above, comments on the Draft Permit did not raise this issue and therefore the EPA does not have the benefit of Georgia EPD's response. The EPA observes, however, that the 249 tpy limit is rolled monthly, so even if the facility's emissions are "close to the 249 tpy limit" in one consecutive 12-month period, this does not mean that the facility will be in violation of the limit at the end of the subsequent month. Furthermore, as explained above, the monthly emission levels specified in Condition 6.2.16 are not intended to be enforceable limit on emissions, but instead trigger Piedmont Green Power's obligation to notify Georgia EPD and explain how the facility will nonetheless comply with the consecutive 12-month 249 tpy limit. Thus, the facility's self-reported "exceedances" of the monthly emission amounts do not demonstrate that the facility cannot or will not comply with the consecutive 12-month 249 tpy limit. The information presented by the Petitioner has not

demonstrated that the facility cannot or will not comply with the 249 tpy limit on NOx and CO emissions.

The second general argument advanced by the Petitioner is that the limits on NOx and CO emissions are not enforceable as a practical matter. This argument overlaps significantly with the Petitioner's first argument in that it focuses primarily on Georgia EPD's alleged lack of a sufficient technical basis to demonstrate that the facility is in fact complying with the PTE limits.

The Petitioner begins by asserting that "Petitioner's best information indicates" that Piedmont Green Power never completed performance stack tests for NOx and CO in accordance with federal regulations. Petition at 18. The Petitioner cites to 40 C.F.R. 63.11212(c) as the legal basis for this argument. However, the EPA observes that 40 C.F.R. 63.11212(c) does not require a facility to perform a stack test. Instead that provision sets out general requirements governing stack tests *when* required under the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boiler Area Sources, 40 C.F.R. part 63, subpart JJJJJJ. A petitioner must provide sufficient factual and legal analysis for the basis for an objection. *See MacClarence*, 596 F.3d at 1131. Here, the Petitioner has not demonstrated that the facility failed to comply with any applicable stack-testing requirement, that the facility has not in fact conducted such a stack test, or that failing to conduct such a stack test renders the limits on potential to emit technically inadequate and not enforceable as a practical matter. Therefore, an objection is not warranted on this basis.

The Petitioner continues its second argument by claiming that the NOx and CO emissions data that Georgia EPD points to as demonstrating that the facility can meet the Final Permit's PTE limits are faulty. *See* Petition at 19-21. The emissions information at issue is monitoring data from the third quarter of 2014. In particular, the Petitioner contends that flaws in these monitoring results make the emission calculations insufficient to demonstrate that the facility can emit on average less than 0.0812 lbs/MMBtu. As previously noted, concerns regarding these data were not raised with reasonable specificity in comments to Georgia EPD on the Draft Permit, and therefore the EPA does not have the benefit of Georgia EPD's response. Based on the EPA's review of the Final Permit and permit record, however, the Petitioner has not demonstrated that the third quarter 2014 emissions information is faulty, or that any errors in those emissions calculations undermine the practical enforceability of the Final Permit's NOx and CO PTE limits.

As a threshold matter, as noted above, the Petitioner has not demonstrated that historical short-term emissions above 0.0812 lbs/MMBtu would demonstrate that the facility will not or cannot meet the Final Permit's consecutive 12-month 249 tpy limits. Absent such demonstration, the Petitioner's arguments regarding alleged errors in the third quarter 2014 monitoring data are insufficient to warrant the EPA's objection to the Final Permit. In any event, the Petitioner has not demonstrated that the third quarter 2014 monitoring results are flawed.

The Petitioner claims that there are "gaps" in the data from the third quarter of 2014 where "the boiler appears to be operating but the NOx emissions rate is recorded as zero." Petition at 19-20. The Petitioner claims that these values are improperly included in calculating a 0.075lb/MMBtu rate for NOx emissions. This is similar to the concern discussed earlier in this order (*supra* at 21)

regarding the facility's monitoring results from June 2013 to April 2014. As with respect to the data from June 2013 to April 2014, the Petitioner provides nothing more than a bare assertion that the boiler was in fact operating during these data "gaps." Therefore, the Petitioner has not demonstrated that inclusion of these zero emission periods in the facility's emission calculations rendered the data "faulty." See *Luminant Generating Co.* at 9. Therefore, an objection is not warranted on this basis.

The Petitioner next claims that the third quarter 2014 emissions data do not explicitly account for boiler startup and shutdown emissions. In support of this assertion, the Petitioner cites Section IX. of the Petition. In that section, discussed below, the Petitioner claims that Georgia regulations authorize exclusion of certain startup, shutdown, and malfunction emissions from emission calculations. The Petitioner also generally alleges that Piedmont Green Power's potential-to-emit calculations exclude startup, shut down and malfunction emissions, but the Petitioner does not provide any specific support for that allegation. As previously noted, concerns regarding the use of CERMS to demonstrate compliance were not raised with reasonable specificity in comments to Georgia EPD on the Draft Permit, and therefore the EPA does not have the benefit of Georgia EPD's response. However, the Petitioner's argument regarding the alleged exclusion of startup and shutdown emissions from the third quarter 2014 emissions data is unsubstantiated. First, the Petitioner does not identify any specific information indicating that these emissions data exclude startup and shutdown emissions.[20] Therefore, the Petitioner has not demonstrated that start up and shutdown emissions were excluded from the third quarter 2014 emissions data or that start up and shutdown emissions will be excluded from the Petitioner's future monitoring data. Therefore, an objection is not warranted on this basis.

The Petitioner next claims that the facility's emissions calculations are flawed because the facility "[a]pparently" uses F-Factors rather than a flow rate monitor to translate the CERMS concentration data into NOx and CO emissions data. This claim is also unsubstantiated. In fact, contrary to the Petitioner's claim, it appears that the facility currently utilizes a flow rate monitor, not F-Factors. First, Condition 4.1.3, which the Petitioner points to as authorizing the use of Method 2, applies to performance testing, not to operation of the continuous emission rate monitors. Second, Condition 5.2.1 requires the facility to utilize NOx and CO CERMS to demonstrate continuous compliance with the consecutive 12-month NOx and CO limits.[21] A CERMS, by definition, is a monitoring device that utilizes an integral flow meter (thereby negating the need for F-Factors), along with measured concentrations, to determine mass

[20] Contrary to the Petitioner's assertion, Condition 5.1.1 requires any continuous monitoring device used at to monitor emissions to record during "all periods of operation . . . except for continuous monitoring system breakdown and repairs." The NOx and CO CERMS are used to demonstrate compliance with the facility's consecutive 12-month limits of 249 tpy for CO or NOx, *see* Condition 6.2.6 and 6.2.7, and all of the facility's emissions, including those that occur during startup, shutdown, and malfunction, must be included in the compliance demonstration for the 12-month rolling NOx and CO limits.

[21] Correspondence from Piedmont Green Power to Georgia EPD attached to the Petition as Exhibit 15 indicates that the facility's previous permit required the use of CEMs but that Piedmont Green Power installed a CERMS at Georgia EPD's request to provide a more accurate emission calculation by using volumetric flow and emissions data. *See* Letter dated June 13, 2014, from Olin Hicks, Piedmont Green Power, to James Easton, Georgia Air Protection Branch.

emission rates on a pound per hour basis.[22] Finally, insofar as Piedmont Green Power did in fact utilize F-Factors in any of its emissions calculations, the Petitioner has not provided the necessary analysis to demonstrate that Piedmont Green Power's use of F-Factors resulted in underestimation of the facility's emissions, or that any such errors ultimately undermine the practical enforceability of the NOx and CO emission limits. Therefore, an objection is not warranted on this basis.

The Petitioner's last argument in connection with Claim 3 is that the data on which Georgia EPD relies to show that the facility can comply with the NOx and CO limits were collected at operating capacities below the boiler operational capacity of 700 MMBtu. As discussed above, under circumstances where a facility agrees to accept an enforceable limit that has the effect of limiting emissions to below the applicable PSD major source threshold, the facility's potential to emit may be calculated based on that limit. Here, the facility accepted 249 tpy limits on NOx and CO emissions over each consecutive 12-month period, and will demonstrate continuing compliance with those limits via use of a CERMS. To the extent that the facility would not be able to comply with these 249 tpy limits if it utilized the boiler at full operational capacity, the facility will need to curtail operations sufficient to maintain continuing compliance with the limits. Thus, it is not unreasonable for Georgia EPD to rely upon monitoring data collected when at operating a capacity below the boiler's full operational capacity to conclude that the facility is capable of complying with these 249 tpy limits.

The EPA denies Claim 3 for the reasons stated above. The EPA denies the Petition on Claim 3 because the specific arguments underlying the claim were not raised with reasonable specificity in comments to Georgia EPD on the Draft Permit. Alternatively, the EPA denies the Petition on Claim 3 because the Petitioner has not demonstrated that historical emissions data show that the facility cannot or will not comply with the NOx and CO synthetic minor limits, or that the limits are otherwise unenforceable as a practical matter.

Claim 4: Specific Permit Conditions are Not Enforceable as a Practical Matter.

The Petition's fourth claim is found in Section VII. on pages 21-23.

The Petitioner states that several specific permit provisions are legally deficient for various reasons. The Petitioner's specific concern with respect to each condition is described below. For the reasons provided below, the EPA grants in part and denies in part the Petitioner's request for objection to the Final Permit for the permit conditions at issue in this claim.

Condition 3.2.2

Petitioner's Claim: The Petitioner claims that Condition 3.2.2 is not federally or practically enforceable because the associated testing only includes testing for HCl and therefore lacks adequate monitoring. Petition at 22.

---

[22] *See* 40 C.F.R. part 60, Appendix B, Performance Specification 6 – Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources. (*available at https://www3.epa.gov/ttnemc01/perfspec/ps-6.pdf*).

EPA's Response: As explained in connection with Claim 2 above, the EPA grants the Petition with respect to the claim that the HAP emission limits set forth in Condition 3.2.2 are unenforceable as a practical matter. *See supra* at 14.

Condition 3.2.3

Petitioner's Claim: The Petitioner claims that Condition 3.2.3, which states that biodiesel may be fired in the boiler only during startup, shutdown, and bed stabilization, is not practically enforceable because the term "bed stabilization" is not defined by the permit, statute, or regulation Petition at 22.

EPA's Response: The EPA denies the Petitioner's request to object to the Final Permit based on these grounds because the Petitioner has not demonstrated that Condition 3.2.3 is unenforceable as a practical matter because of the use of the term "bed stabilization."

In comments on the Draft Permit, the Petitioner claimed that the Draft Permit's limitations on the use of biodiesel were insufficient because they did not place "[h]ard, maximum limitations" on the facility's use of biodiesel. *See* Statement of Basis, Addendum at 8. Specifically regarding the Draft Permit's use of the term "bed stabilization," the Petitioner commented that it "is an undefined term and thus not an actual limit on the use of biodiesel." *Id.* In response, Georgia EPD noted that "40 CFR 60.42b(f)(1) of NSPS Db requires that the facility 'have a federally enforceable permit limiting the annual capacity for oil to 10 percent or less.'" Therefore, Georgia EPD added a numerical limit on biodiesel usage to Condition 3.3.4 of the Final Permit. Georgia EPD also added conditions for monthly monitoring of biodiesel used in the boiler and exceedance reporting. *See* Conditions 5.2.5a and 6.1.7v. Thus, while Condition 3.2.3 of the Final Permit continues to state that biodiesel may only be fired in the boiler during "startup, shutdown, and bed stabilization," that restriction is now supplemented with an enforceable numerical limit on the total amount of biodiesel fuel that may be fired in the boiler during any 12-month consecutive period. *See* Condition 3.3.4.

As explained above, the EPA expects a petitioner to address the permitting authority's final decision and to explain why the permitting authority's response to comments on the Draft Permit are inadequate to address the petitioner's concerns. The Petitioner does not address Georgia EPD's response on this issue, but instead simply restates the portion of its comment alleging that "bed stabilization" is not a defined term and therefore Condition 3.2.3 is not practically enforceable. Given that the Condition utilizing the term "bed stabilization" is now supplemented by a numerical limit on biodiesel use, Georgia EPD has addressed the Petitioner's claim. Furthermore, while the Petitioner is correct that "bed stabilization" is not defined by the permit or regulation, the Petitioner does not explain why this term is so vague or subject to multiple interpretations as to render Condition 3.2.3 unenforceable as a practical matter. Therefore, the Petitioner has not demonstrated that Condition 3.2.3 is unenforceable as a practical matter because of the use of the term "bed stabilization." The EPA denies the Petitioner's request to object to the Final Permit based on Condition 3.2.3.[23]

[23] However, the EPA is granting the Petitioner's request to object to the Final Permit on a different basis concerning Condition 3.2.3 under Claim 1. *See supra.*

Condition 3.3.2

Petitioner's Claim: The Petitioner claims that Condition 3.3.2 subparagraphs (a) and (b), which address the particulate matter and opacity limits set forth at federal New Source Performance Standards in Subpart Db, 40 C.F.R. 60.43(f) and (h)(1), are not practically enforceable because they improperly exclude emissions during periods of startup, shutdown and malfunction. The Petitioner cross-references arguments made in Section IX. of the Petition.

EPA's Response: As explained above, a petition for the EPA to object to a title V permit must be based on objections that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objections arose after such period. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). This objection to Condition 3.3.2 was not raised in comments to Georgia EPD on the Draft Permit, and Condition 3.3.2. did not change between the Draft Permit and Final Permit. Therefore, as a factual matter, in this instance the grounds for an objection related to Permit Condition 3.3.2 existed at the time of public comment. The Petitioner has not argued or demonstrated that the grounds for this objection arose after the time of the public comment. The Petitioner has not argued or demonstrated that it would have been impractical to raise such an objection during the public comment period. Therefore, the EPA denies the Petitioner's request for an objection to Condition 3.3.2. With regard to the Petitioner's cross reference to arguments made in Section IX. of the Petition, the EPA's response to those arguments is provided below in connection with Claim 6.

Condition 4.1.3

Petitioner's Claim: The Petitioner claims that Condition 4.1.3 "impermissibly grants complete discretion to the Director." Petition at 22. The Petitioner argues this is impermissible because it "allows changes in methodology when the Director 'in his opinion,' believes the modification will make methodology 'more reliable.'" *Id.* The Petitioner states that Condition 4.1.3 must include objective guidelines to determine whether alteration of methodology is warranted, a requirement that an opinion outlining the Director's reasoning be published, and an opportunity for public comment be provided. *Id.*

EPA's Response: As explained above, a petition for the EPA to object to a title V permit must be based on objections that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objections arose after such period. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). This objection to Condition 4.1.3 was not raised in comments to Georgia EPD on the Draft Permit, and Condition 4.1.3. did not change between the Draft Permit and Final Permit. Therefore, as a factual matter, the grounds for any objection related to Permit Condition 4.1.3 existed at the time of public comment. The Petitioner has not argued or demonstrated that it would have been impractical to raise such an objection during the public comment period. The EPA therefore denies the Petitioner's request for an objection to the permit based on Condition 4.1.3.

Conditions 5.2.5(b), 6.2.2(f) and 6.2.3(b)

Petitioner's Claim: The Petitioner claims that Georgia EPD cannot assure compliance with these conditions, which all pertain to monitoring the amount of clean cellulosic biomass fired in the boiler, unless Piedmont Green Power samples and tests each shipment of fuel to ensure that the fuel being burned on a daily and monthly basis actually meets the Final Permit's definition of clean cellulosic biomass. Petition at 22.

EPA's Response: As explained above in connection with Claim 1, the EPA is granting the Petition on the basis that the Final Permit lacks conditions sufficient to assure that the facility complies with the requirement in Permit Condition 3.2.3 that it fire only "clean cellulosic biomass" in the boiler (with the exception of firing biodiesel during startup, shutdown, and bed stabilization). The conditions cited in this claim of the Petition are reporting requirements for the type and quantity of fuel used in the boiler. In light of the grant for Claim 1, the EPA is not resolving the concern raised by the Petitioner in this claim. Georgia EPD may take steps in responding to Claim 1 that obviate the Petitioner's concerns regarding these conditions. It is an appropriate exercise of the EPA's discretion and a reasonable use of agency resources to not resolve the Petitioner's concerns on these conditions. *See Yuhuang Order* at 17.

Condition 6.1.2

Petitioner's Claim: The Petitioner claims that Condition 6.1.2 is unenforceable as a practical matter. Petition at 23. The Petitioner claims that this condition does not contain a deadline for submission of the required written report. *Id.* The Petitioner claims that the lack of a deadline means that Georgia EPD cannot take "corrective action if/when the facility fails to comply with the requirement." *Id.*

EPA's Response: As explained above, a petition for the EPA to object to a title V permit must be based on objections that were raised with reasonable specificity during the public comment period unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objections arose after such period. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). This objection to Condition 6.1.2 was not raised in comments to Georgia EPD on the Draft Permit, and Condition 6.1.2. did not change between the Draft Permit and Final Permit. Therefore, as a factual matter, the grounds for any objection related to Final Permit Condition 6.1.2 existed at the time of public comment. The Petitioner has not argued or demonstrated that it would have been impractical to raise such an objection during the public comment period. The EPA therefore denies the Petitioner's request for an objection to the permit based on Condition 6.1.2.

Conditions 6.2.14 and 6.2.15

Petitioner's Claim: The Petitioner claims that Conditions 6.2.14 and 6.2.15 are not practically enforceable because they use an HCl emissions factor (0.00006 lb/MMBtu) from the June 26, 2013, stack test that lacks sufficient technical justification. The Petitioner refers to arguments made in Section V.B. of the Petition, which allege that the Final Permit's HCl monitoring is inadequate.

EPA's Response: As explained in connection with Claim 2, above, the EPA grants the Petition with respect to the overall claim that the HAP emission limits set forth in Condition 3.2.2 are unenforceable as a practical matter. Because Georgia's response to this objection may obviate the specific concerns raised in the Petition regarding HCl monitoring, including the adequacy of the HCl emission factor relied on for Conditions 6.2.14 and 6.2.15, the EPA is not resolving the Petitioner's remaining HCl-related claims in this Order including this claim.

Condition 8.14.4

Petitioner's Claim: The Petitioner claims that Condition 8.14.4 is unenforceable as a practical matter because the language is "impermissibly vague with respect to which 'excess emissions' are 'allowed.'" Petition at 23.

EPA Response: Condition 8.14.4 reflects the language of Ga. Comp. R. & Regs. Rule 391-3-1-.02(2)(a)7, which the EPA has approved as part of Georgia's SIP. This regulatory provision allows excess emissions resulting from startup, shutdown, or malfunction (SSM) of any source that occur though ordinary diligence is employed, provided that certain criteria are met. Where a state regulatory provision has been approved by the EPA as part of the SIP, it is appropriate for inclusion in a title V permit. *See* 40 C.F.R. § 70.2 (defining "applicable requirement" to include "[a]ny standard or other requirement provided for in the applicable implementation plan."); 40 C.F.R. § 70.1(b) ("All sources subject to these regulations shall have a permit to operate that assures compliance by the source with all applicable requirements."). The Petitioner's challenge to Condition 8.14.4 therefore appears to pertain to the adequacy of the underlying SIP provision rather than the Final Permit. Whether an approved SIP rule is inconsistent with the Clean Air Act is a matter that may be addressed by a method such as a "SIP Call" pursuant to Clean Air Act section 110(k), not by the Administrator's objection to a title V operating permit. *See, e.g., In re Monroe Power Company*, Order on Petition IV-2001-8 (Oct. 9, 2002), at 14; *In re Pacificorp's Jim Bridger and Naughton Electric Utility Steam Generating Plants*, Order on Petition No. VIII-00-1 (Nov. 16, 2000) at 23-24.

In fact, the EPA has already determined that Rule 391-3-1-.02(2)(a)7 is not in accordance with Clean Air Act requirements governing SIPs and has issued a SIP Call requiring Georgia to submit a corrective SIP revision. 80 Fed. Reg. 33840 (June 12, 2015). However, until the EPA either approves a corrective SIP revision or addresses Georgia's SIP deficiency with a federal implementation plan (FIP), Rule 391-3-1-.02(2)(a)7 remains in Georgia's SIP and no action concerning Georgia's existing title V permits is immediately required. *See* 80 Fed. Reg. at 33925 ("The EPA does not intend the issuance of [the SSM] SIP call to have automatic impacts on the terms of any existing permit.")[24]; *Id.* at 33849 ("When the EPA issues a final SIP call to a state, that action alone does not cause any automatic change in the legal status of the existing affected

[24] As the EPA also previously explained, any needed revisions to title V permits would occur after the necessary state and federal administrative process to revise the SIP has occurred. "The EPA's finding of substantial inadequacy and a SIP call for a given state provides the state time to revise its SIP in response to the SIP call through the necessary state and federal administrative process. Thereafter, any needed revisions to existing permits will be accomplished in the ordinary course as the state issues new permits or reviews and revises existing permits." 80 Fed. Reg. 33925.

provision(s) in the SIP. During the time that the state takes to develop a SIP revision in response to the SIP call and the time that the EPA takes to evaluate and act upon the resulting SIP submission from the state pursuant to CAA section 110(k), the existing affected SIP provision(s) will remain in place."). To the extent that the Petitioner is arguing that Condition 8.14.4 could be modified to make the language of Rule 391-3-1-.02(2)(a)7 enforceable as a practical matter, the Petitioner's general assertion that the permit language is vague is insufficient to make this demonstration. Therefore, the EPA denies the Petitioner's request that the EPA object to the permit due to the inclusion of language from Ga. Comp. R. & Regs. Rule 391-3-1-.02(2)(a)7.

For the reasons stated above, the EPA grants in part and denies in part the Petitioner's request for objection to the Final Permit for the basis described in Claim 4 above.

Claim 5: The Facility Should Go Through PSD Permitting, Including a Best Available Control Technology Analysis for Greenhouse Gases.

The Petition's fifth claim is found in Section VIII. on page 23.

Petitioner's Claim: The Petitioner claims that the facility's potential to emit carbon dioxide is 590,000 TPY and that this makes it a "major source for greenhouse gases." Petition at 23. The Petitioner states that "We believe the evidence we have indicate that this facility is a major source of criteria pollutants." *Id.* The Petitioner concludes that this means that the facility should go through PSD permitting, which would include a BACT analysis for greenhouse gases. *Id.*

EPA's Response: For the reasons described below, the EPA denies the Petitioner's claim that the EPA must object to the Final Permit on the bases described in Claim 5.

As explained above, a petition for the EPA to object to a title V permit must be based on objections that were raised with reasonable specificity during the public comment period. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Petitioner's claim that Piedmont Green Power should undergo a BACT analysis for greenhouse gases was not raised with reasonable specificity in comments to Georgia EPD on the Draft Permit. The Petitioner does not demonstrate that it was impracticable to raise this objection in comments on the Draft Permit. Nor did the grounds for this objection arise after the public comment period. Therefore, the EPA denies Claim 5 pursuant to CAA section 505(b)(2). In addition, the EPA denies Claim 5 on the basis that the Petitioner did not demonstrate that the facility's potential to emit criteria pollutants exceeds the 250 tpy applicability threshold for PSD permitting. *See supra* at Claim 3 (addressing the Petitioner's claim that the facility is subject to PSD permitting as a major source for NOx and CO). Thus, the Petitioner has not demonstrated that the facility is required to "go through Prevention of Significant Deterioration permitting." Petition at 23.[25]

For the reasons stated above, the EPA denies the Petitioner's claim that the EPA must object to the Final Permit on the basis described in Claim 5 above.

---

[25] The EPA observes that at the time of construction, greenhouse gases were not a regulated air pollutant under the Clean Air Act. *See* 75 Fed. Reg. 17004, 17004 (identifying January 2, 2011, as the date when PSD and Title V permitting requirements applied to GHG).

Claim 6: Piedmont Green Power's Potential to Emit Calculation Improperly Excludes Startup, Shutdown and Malfunction Emissions

The Petition's sixth claim is found in Section IX. on pages 23-4.

Petitioner's Claim: The Petitioner claims that Georgia Rule 391-3-1-.02(7)(a) generally requires that startup, shutdown and malfunction emissions be included in a project baseline and Potential to Emit, but then improperly allows the operator to elect to exclude startup, shutdown and malfunction emissions that are "not quantifiable." Petition at 23. The Petitioner further contends that Georgia Rule 391-3-1-.02(7)(a)(i)(1)(II) purports to allow any "non-compliant" emissions to be excluded from a facility's average emissions. *Id.* According to the Petitioner, Piedmont Green Power's calculation of the facility's potential to emit "does not include quantified emissions associated with startup, shutdown and malfunction conditions, and the State's rules allowing the exclusion of 'non-quantifiable' emissions or 'non-compliant' emissions are patently illegal, based on long-standing Clean Air Act jurisprudence and recently on EPA's startup, shutdown and malfunction emissions rulemaking." *Id.* at 23-24. The Petitioner concludes that these exemptions result in a reduced potential to emit that understates actual emissions, making the Permit's synthetic minor emission limits unenforceable. *Id.* at 24.

EPA's Response: For the reasons described below, the EPA denies the Petitioner's claim that the EPA must object to the Final Permit on the bases described in Claim 6.

First, the Petitioner's argument that Georgia's rules allow a source to exclude startup, shutdown, and malfunction emissions that are "not quantifiable" or "non-compliant" from potential-to-emit calculations involves an alleged deficiency in Georgia's SIP, not in the Final Permit. As discussed *supra* at 28-29, such deficiency, if it exists, would need to be addressed via a CAA section 110(k) SIP Call, rather than in an objection to an individual title V operating permit.

Second, the Petitioner does not demonstrate that Georgia's rules authorize Piedmont Green Power to exclude startup, shutdown or malfunction emissions from its emissions calculations for purposes of determining compliance with the Final Permit's NOx and CO synthetic minor limits. At the outset, the Petitioner's broad citation to all of 391-3-1-.02(7)(a), which includes all of the definitions for Georgia's SIP-approved PSD program, is not sufficiently specific to demonstrate that Georgia's rules authorize the exclusion of quantifiable emissions from startup, shutdown, and malfunction events from calculation of a facility's potential to emit. However, it does not appear that there are any provisions within the Georgia's PSD program that would authorize Piedmont Green Power to exclude startup, shutdown or malfunction emissions from its potential-to-emit calculation.

While the specific PSD regulations cited by the Petitioner at Ga. Comp. R. & Regs. Rules 391-3-1-.02(7)(a)2.99(i)(I) and (II) do authorize exclusion of startup, shutdown, and malfunction emissions that are "not quantifiable" or "non-compliant," these provisions do not apply to Piedmont Green Power's emissions calculation for purposes of demonstrating compliance with its potential to emit limits (or for initially demonstrating that it was appropriate to treat Piedmont Green Power as a synthetic minor source). In particular, Rules 391-3-1-.02(7)(a)2. (i)(I) and (II) apply only to calculating "baseline actual emissions" in determining whether a modification to

an *existing* source triggers PSD review. Piedmont Green Power is a *new* source, so the baseline emissions level used in the potential-to-emit calculation was zero. Ga. Comp. R. & Regs. Rules 391-3-1-.02(7)(a)2. (i)(III). Likewise, while the definition of "projected actual emissions" at Ga. Comp. R. & Regs. Rules 391-3-1-.02(7)(a)2. (ii) allows the exclusion of emissions from startups, shutdowns, and/or malfunctions that are not quantifiable, this provision also applies only for purposes of determining whether a modification to an *existing* source triggers PSD review.[26]

As explained above in Section II.D. of this Order, PSD applicability for a new facility like Piedmont Green Power depends on whether the facility qualifies as a "major stationary source," which is defined as a facility that emits or has the potential to emit certain pollutants in excess of specified thresholds. *Supra* at 6. If the facility agrees to accept an emissions limit that is enforceable as a practical matter, the facility's potential to emit is calculated based on that limit. *Supra* at 6. Because Piedmont Green Power accepted enforceable NOx and CO limits requiring the facility to keep its NOx and CO emissions at or below 249 tpy, PSD applicability is determined by comparing the facility's baseline actual emissions (zero) to the 249 tpy limit. Therefore, its potential to emit for NOx and CO is 249 tpy, below the PSD applicability threshold for this source category.

The Petitioner also does not demonstrate that the Final Permit authorizes exclusion of emissions during startup, shutdown, or malfunction when determining compliance with the facility's synthetic minor limits for NOx or CO. In this case, the Final Permit includes Permit Condition 3.2.1, which restricts annual NOx and CO emissions to 249 TPY during any consecutive 12-month period. For purposes of demonstrating compliance with this permit term, the Final Permit includes Condition 6.2.7, which outlines how the facility is to calculate monthly NOx and CO emissions. Nothing in Condition 6.2.7 suggests that startup, shutdown, or malfunction emissions are excluded from the calculation. In addition, the Final Permit also includes Permit Condition 6.2.3, which requires reporting of exceedances during periods of startup, shutdown, and malfunction. The Petitioner has not provided any claim or analysis suggesting that the cited provisions of 391-3-1-.02(7)(a) impact these terms in the Final Permit.

Finally, the Petitioner offers no factual support for the argument that previously performed emissions calculations demonstrating Piedmont Green Power's compliance with the 249 tpy synthetic minor limits for NOx and CO excluded "quantified emissions associated with startup, shutdown and malfunction conditions." (Petition at 23). The Petitioner's mere assertion that such emissions were excluded is insufficient to demonstrate a permit deficiency.

In conclusion, the EPA finds that the Petitioner has not demonstrated that Georgia EPD's potential-to-emit calculation for this facility excluded startup or shutdown emissions, that Georgia's regulations authorize the exclusion of these emissions for the purpose of calculating Piedmont Green Power's potential-to-emit, or that the Final Permit authorizes Piedmont Green Power to exclude such emissions from its demonstration of compliance with the synthetic minor limits in Condition 3.2. Therefore, the EPA denies the Petition with respect to Claim 6.

---

[26] To the extent that the Petitioner is intending to reference 391-3-1-.02(2)(a)7 within this claim, this is addressed as part of the EPA's response to Claim 4.

V. CONCLUSION

For the reasons set forth above and pursuant to CAA § 505(b)(2), 42 U.S.C. 7661d(b)(2), Ga. Comp. R. & Regs. Rule 391-3-1-.03(10) (f)(3), and 40 C.F.R. § 70.8(d), the EPA hereby grants in part and denies in part the Petition as to the claims described herein.

Dated: Dec 13, 2016

Gina McCarthy,
Administrator.