I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated February 8, 2022 (the Petition) from Sierra Club (the Petitioner), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 United States Code (U.S.C.) § 7661d(b)(2). The Petition requests that the EPA Administrator object to operating permit No. V20678.R02 (the Permit) issued by the Pinal County Air Quality Control District (PCAQCD or the District) to the Salt River Project Agricultural Improvement and Power District (SRP) Desert Basin Generating Station (Desert Basin or the facility) in Pinal County, Arizona. The operating permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and Chapter 3 of the PCAQCD Code of Regulations (PCAQCD Code). See also 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). This type of operating permit is also referred to as a title V permit or part 70 permit.

Based on a review of the Petition and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, the EPA grants in part and denies in part the Petition requesting that the EPA Administrator object to the Permit. Specifically, the EPA grants the first two claims (“Claim 1.A–B” and “Claim 1.C”) and denies the third claim (“Claim 2”).

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(1) of the CAA, 42 U.S.C. § 7661a(d)(1), requires each state to develop and submit to the EPA an operating permit program to meet the requirements of title V of the CAA and the
EPA’s implementing regulations at 40 C.F.R. part 70. Pinal County submitted a title V program governing the issuance of operating permits in 1993, followed by several amendments. After granting interim approval of Pinal County’s title V operating permit program in 1996, the EPA granted full approval of the program in 2001. 66 Fed. Reg. 63166 (December 5, 2001). This program, which became effective on November 30, 2001, is codified in portions of Chapters 1, 3, 7, 8, and 9 and Appendix B to the PCAQCD Code.

All major stationary sources of air pollution and certain other sources are required to apply for and operate in accordance with 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 implementation plan. 42 U.S.C. §§ 7661a(a), 7661b, 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 compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); see 42 U.S.C. § 7661c(c). One purpose of the title V program is to “enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements.” 57 Fed. Reg. at 32251. Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source’s emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to their EPA-approved title V programs. Under CAA § 505(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. 42 U.S.C. § 7661d(a). Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the proposed permit if the EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. 42 U.S.C. § 7661d(b)(1); see also 40 C.F.R. § 70.8(c). If the EPA does not object to a permit on its own initiative, any person may, within 60 days of the expiration of the EPA’s 45-day review period, petition the Administrator to object to the permit. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Each petition must identify the proposed permit on which the petition is based and identify the petition claims. 40 C.F.R. § 70.12(a). Any issue raised in the petition as grounds for an objection must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements under part 70. 40 C.F.R. § 70.12(a)(2). Any arguments or claims the petitioner wishes the EPA to consider in support of each issue raised must generally be contained within the body of the petition.1 Id.

1 If reference is made to an attached document, the body of the petition must provide a specific citation to the referenced information, along with a description of how that information supports the claim. In determining whether to object, the Administrator will not consider arguments, assertions, claims, or other information incorporated into the petition by reference. Id.
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 authority (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). 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); see also 40 C.F.R. § 70.12(a)(2)(v).

In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1). Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA. As courts have recognized, CAA § 505(b)(2) contains both a “discretionary component,” under which the Administrator determines whether a petition demonstrates that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty on the Administrator’s part to object where such a demonstration is made. See generally Nucor II Order at 7. For example, one such criterion is whether a petitioner has provided the relevant analyses and citations to support its claims. For each claim, the petitioner must identify (1) the specific grounds for an objection, citing to a specific permit term or condition where applicable; (2) the applicable requirement as defined in 40 C.F.R. § 70.2, or requirement under part 70, that is not met; and (3) an explanation of how the term or condition in the permit, or relevant portion of the permit record or permit process, is not met.


See also WildEarth Guardians v. EPA, 728 F.3d 1075, 1081–82 (10th Cir. 2013); MacClarence v. EPA, 596 F.3d 1123, 1130–33 (9th Cir. 2010); Sierra Club v. EPA, 557 F.3d 401, 405–07 (6th Cir. 2009); 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); cf. NYPIRG, 321 F.3d at 333 n.11.

See also 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)).

See also Sierra Club v. Johnson, 541 F.3d at 1265–66; Citizens Against Ruining the Environment, 535 F.3d at 678.
adequate to comply with the corresponding applicable requirement or requirement under part 70. 40 C.F.R. § 70.12(a)(2)(i)–(iii). If a petitioner does not identify these elements, the EPA is left to work out the basis for the petitioner’s objection, contrary to Congress’s 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.”).6 Relatedly, the EPA has pointed out in numerous previous orders that 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 at 9 (January 15, 2013).7 Also, the failure to address a key element of a particular issue presents further grounds for the EPA to determine that a petitioner has not demonstrated a flaw in the permit. See, e.g., In the Matter of EME Homer City Generation LP and First Energy Generation Corp., Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).8

Another factor the EPA examines is whether the petitioner has addressed the state or local permitting authority’s decision and reasoning. Petitioners are required to address the permitting authority’s final decision and final reasoning (including the state’s response to comments) where these documents were available during the timeframe for filing the petition. 40 C.F.R. § 70.12(a)(2)(vi); see MacClarence, 596 F.3d at 1132–33.9 Specifically, the petition must identify where the permitting authority responded to the public comment and explain how the permitting authority’s response is inadequate to address (or does not address) the issue raised in the public comment. Id.

The information that the EPA considers in making a determination whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. 40 C.F.R. § 70.13. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement required by § 70.7(a)(5) (sometimes referred to as the ‘statement of basis’); any comments the permitting authority received during the public participation process

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6 See also In the Matter of Murphy Oil USA, Inc., Order on Petition No. VI-2011-02 at 12 (September 21, 2011) (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring); In the Matter of Portland Generating Station, Order on Petition at 7 (June 20, 2007) (Portland Generating Station Order).

7 See also Portland Generating Station Order at 7 (“[C]onclusory statements alone are insufficient to establish the applicability of [an applicable requirement].”); In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1, Order on Petition Number VII-2004-02 at 8 (April 20, 2007); Georgia Power Plants Order at 9–13; In the Matter of Chevron Products Co., Richmond, Calif. Facility, Order on Petition No. IX-2004–10 at 12, 24 (March 15, 2005).

8 See also In the Matter of Hu Honua Bioenergy, Order on Petition No. IX-2011-1 at 19–20 (February 7, 2014); Georgia Power Plants Order at 10.

9 See also, e.g., Finger Lakes Zero Waste Coalition v. EPA, 734 Fed. App’x *11, *15 (2d Cir. 2018) (summary order); In the Matter of Noranda Alumina, LLC, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state’s explanation in response to comments or explain why the state erred or why the permit was deficient); In the Matter of Kentucky Syngas, LLC, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state’s response to comments or provide a particularized rationale for why the state erred or the permit was deficient); In the Matter of Georgia Power Company, Order on Petitions at 9–13 (January 8, 2007) (Georgia Power Plants Order) (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).
on the draft permit; the permitting authority’s written responses to comments, including
responses to all significant comments raised during the public participation process on the draft
permit; and all materials available to the permitting authority that are relevant to the permitting
decision and that the permitting authority made available to the public according to § 70.7(h)(2).
Id. If a final permit and a statement of basis for the final permit are available during the agency’s
review of a petition on a proposed permit, those documents may also be considered when making
a determination whether to grant or deny the petition. Id.

If the EPA grants a title V petition, a permitting authority may address the EPA’s objection by,
among other things, providing the EPA with a revised permit. See, e.g., 40 C.F.R. § 70.7(g)(4);
see generally 81 Fed. Reg. 57822, 57842 (August 24, 2016) (describing post-petition
procedures); Nucor II Order at 14–15 (same). In some cases, the permitting authority’s response
to an EPA objection may not involve a revision to the permit terms and conditions themselves,
but may instead involve revisions to the permit record. 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 an
additional rationale to support its permitting decision.

When the permitting authority revises a permit or permit record in order to resolve an EPA
objection, it must go through the appropriate procedures for that revision. 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.

In any case, whether the permitting authority submits revised permit terms, a revised permit
record, or other revisions to the permit, and regardless of the procedures used to make such
revision, the permitting authority’s response is generally treated as a new proposed permit for
purposes of CAA § 505(b) and 40 C.F.R. § 70.8(c) and (d). See Nucor II Order at 14. As such, it
would be subject to the EPA’s 45-day review per CAA § 505(b)(1) and 40 C.F.R. § 70.8(c), and
an opportunity for the public to petition under CAA § 505(b)(2) and 40 C.F.R. § 70.8(d) if the
EPA does not object during its 45-day review period.

When a permitting authority responds to an EPA objection, it may choose to do so by modifying
the permit terms or conditions or the permit record with respect to the specific deficiencies that
the EPA identified; permitting authorities need not address elements of the permit or the permit
record that are unrelated to the EPA’s objection. As described in various title V petition orders,
the scope of the EPA’s review (and accordingly, the appropriate scope of a petition) on such a
response would be limited to the specific permit terms or conditions or elements of the permit
record modified in that permit action. See In The Matter of Hu Honua Bioenergy, LLC, Order on
Petition No. VI-2014-10 at 38–40 (September 14, 2016); In the Matter of WPSC, Weston, Order
on Petition No. V-2006-4 at 5–6, 10 (December 19, 2007).
The major New Source Review (NSR) program is comprised of two core types of preconstruction permit requirements for major stationary sources. Part C of title I of the CAA establishes the Prevention of Significant Deterioration (PSD) program, which applies to new major stationary sources and major modifications of existing major stationary sources for pollutants for which an area is designated as attainment or unclassifiable for the national ambient air quality standards (NAAQS) and for other pollutants regulated under the CAA. 42 U.S.C. §§ 7470–7479. Part D of title I of the Act establishes the major nonattainment NSR (NNSR) program, which applies to new major stationary sources and major modifications of existing major stationary sources for those NAAQS pollutants for which an area is designated as nonattainment. 42 U.S.C. §§ 7501–7515. 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 state implementation plan (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’s regulations specifying requirements for state NNSR programs are contained in 40 C.F.R. § 51.165.

While parts C and D of title I of the Act address the major NSR program for major sources, section 110(a)(2)(C) addresses the permitting program for new and modified minor sources and for minor modifications to major sources. The EPA commonly refers to the latter program as the “minor NSR” program. States must also develop minor NSR programs to, along with the major source programs, attain and maintain the NAAQS. The federal requirements for state minor NSR programs are outlined in 40 C.F.R. §§ 51.160 through 51.164. These federal requirements for minor NSR programs are less prescriptive than those for major sources, and, as a result, there is a larger variation of requirements in EPA-approved state minor NSR programs than in major source programs.

Under Arizona’s EPA-approved SIP, the Arizona Department of Environmental Quality (ADEQ) is the permitting authority for major stationary sources under parts C and D of title I of the Act, including major sources located in Pinal County. ADEQ’s SIP-approved NSR program rules are contained in portions of Arizona Administrative Code (AAC) Title 18, Chapter 2. Similar to how the EPA delegates permitting responsibilities under the PSD program to states that lack SIP-approved programs, the ADEQ has delegated its NSR major stationary source permitting responsibilities to PCAQCD. As relevant to individual petition claims, this division of authority is discussed in more detail in Section IV of this Order.

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See 40 C.F.R. § 52.152(c)(162)(ii)(A)(3). Note that PCAQCD has primary responsibility for NSR permitting of minor stationary sources in Pinal County, Arizona. However, ADEQ has the authority to assert permitting jurisdiction over individual minor sources in Pinal County. Additionally, neither ADEQ nor PCAQCD have SIP-approved permitting authority to regulate greenhouse gases (GHGs) under the PSD program. A Federal Implementation Plan at 40 C.F.R. § 52.21 is in place for permitting PSD program requirements related to GHGs.
III. BACKGROUND

A. The Desert Basin Facility

SRP owns and operates an electricity generating station known as the Desert Basin Generating Station on the outskirts of Casa Grande, Pinal County, Arizona. This area is designated as nonattainment for coarse particulate matter (PM$_{10}$) and attainment for all other criteria pollutants. The existing facility consists of two natural gas-fired combined cycle combustion turbines with heat recovery steam generators and auxiliary duct burners, among other equipment. The facility is a major stationary source, subject to various New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), SIP requirements, and preconstruction permitting requirements.

This Permit establishes emissions limitation that have been used to justify installing two additional natural gas-fired simple cycle combustion turbines without obtaining an NSR construction permit. PCAQCD determined that this project would not be subject to PSD, NNSR, or minor NSR requirements because emission increases from this project would not exceed the relevant PSD, NNSR, or minor NSR applicability thresholds. As discussed further in Section IV of this Order, this conclusion was based on permit limitations (established solely in the present operating permit) that are designed to restrict emissions of particulate matter (PM), PM$_{10}$, fine particulate matter (PM$_{2.5}$), nitrogen oxides (NO$_x$), volatile organic compounds (VOC), and carbon monoxide (CO).

The EPA conducted an analysis using EPA’s EJScreen$^{11}$ to assess key demographic and environmental indicators within a five-kilometer radius of the SRP Desert Basin facility. This analysis showed a total population of approximately 23,671 residents within a five-kilometer radius of the facility, of which approximately 64 percent are people of color and 49 percent are low income. In addition, the EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 12 environmental indicators. 11 of the 12 Environmental Justice Indices in this five-kilometer area exceed the 70th percentile in the State of Arizona, with two of the 12 Environmental Justice indices exceeding the 90th percentile, including Risk Management Plan Facility Proximity and Wastewater Discharge.

B. Permitting History

SRP first obtained a title V permit for the Desert Basin facility in 1999, which was last renewed in 2019. On April 29, 2021, SRP applied for a title V permit modification to support the installation of the two new simple cycle combustion turbines without obtaining an NSR permit. PCAQCD published notice of a draft permit on September 2, 2021 (the Draft Permit). The Draft Permit was accompanied by a technical support document (TSD) and was subject to a public comment period that ran until October 4, 2021. On October 29, 2021, PCAQCD submitted a proposed permit (the Proposed Permit), along with its responses to public comments (RTC), to

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$^{11}$ EJScreen is an environmental justice mapping and screening tool that provides the EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. See https://www.epa.gov/ejscreen/what-ejscreen.
the EPA for its 45-day review. The EPA’s 45-day review period ended on December 13, 2021, during which time the EPA did not object to the Proposed Permit. On December 27, 2021, PCAQCD issued the final title V permit modification for the Desert Basin facility, Permit No. V20678.R02 (the Final Permit or Permit).

C. Timeliness of Petition

Pursuant to the CAA, if the EPA does not object to a 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. 42 U.S.C § 7661d(b)(2). The EPA’s 45-day review period expired on December 13, 2021. Thus, any petition seeking the EPA’s objection to the Proposed Permit was due on or before February 14, 2022. The Petition was dated and received February 8, 2022, and, therefore, the EPA finds that the Petitioner timely filed the Petition.

IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONER

Prior to presenting its claims, within a section titled “Legal Background and Initial Argument,” the Petitioner alleges a basis for the EPA’s objection that is not discussed elsewhere in the Petition. Petition at 3–4. Specifically, the Petitioner asserts that the permitting authority “shall provide a statement that sets forth the legal and factual basis for the proposed permit conditions including references to the applicable statutory or regulatory provisions.” Petition at 3 (quoting PCAQCD Code § 3-1-060(B)(5) and citing AAC § R18-2-304(I)(4)). The Petitioner asserts that PCAQCD failed to satisfy this requirement because the permit record—including the Final Permit, TSD, and RTC—does not clearly and consistently state whether the Pinal County regulations or Arizona state regulations (or the more stringent of the two) govern the specific provisions of the Permit. Id. at 4. Accordingly, the Petitioner contends the EPA must object to the Permit.

The requirement cited by the Petitioner is nearly identical to, and is derived from, 40 C.F.R. § 70.7(a)(5), which governs what the EPA often calls the “statement of basis.” When the EPA evaluates petition claims concerning § 70.7(a)(5), it generally looks to whether the entire permitting record, including the permitting authority’s response to public comments, supports the terms and conditions of the permit. E.g., In the Matter of US Steel Seamless Tubular Operations, LLC, Fairfield Works Pipe Mill, Order on Petition No. IV-2021-7 at 8–9 (June 16, 2022). More specifically, to determine whether a permitting authority has satisfied § 70.7(a)(5), the EPA considers whether a petitioner has demonstrated that alleged deficiency in the permit record resulted in, or may have resulted in, a deficiency in the content of the permit. Id. Accordingly, to the extent the Petitioner’s general allegation implicates the legal authority underlying specific permit terms, the EPA’s response to the Petitioner’s specific claims in the following sections will resolve this issue.

Note that the Petition describes the September 2, 2021 Draft Permit as a “proposed permit.” However, it was the October 29, 2021 version of the permit, submitted to the EPA along with PCAQCD’s RTC, that is properly characterized as a “proposed permit” on which the public had an opportunity to petition. See 40 C.F.R. § 70.8(a)(1)(ii).
Claim 1.A–B: The Petitioner Claims That “The Administrator Must Object to the Final Permit Because it Fails to Properly Limit The Potential to Emit PM$_{10}$ and PM$_{2.5}$ to Ensure that the New Simple Cycle Turbines are Legally Exempt from [NNSR and PSD] . . . Permitting Requirements.”

**Petitioner’s Claim:** The Petitioner asserts that the EPA must object to the Permit because it does not include NNSR and PSD requirements that the Petitioner asserts are applicable to the new simple cycle combustion turbines. Petition at 17, 21–22. Specifically, the Petitioner argues that the Permit’s emission limit intended to restrict the turbines’ potential to emit (PTE) PM$_{10}$ and PM$_{2.5}$ below the NNSR and PSD applicability thresholds are ineffective to restrict PTE below major source thresholds. See id. at 9–22. The Petitioner claims that this limit is ineffective for two reasons: first, because the emission limit is not accompanied by production or operating limits, id. at 10–17, and second, because the emission limit is not supported by sufficient monitoring and is therefore not enforceable as a practical matter, id. at 17–21.

**Production/Operating Limits**

In the first part of this claim, the Petitioner asserts that a permit term limiting PM$_{10}$ and PM$_{2.5}$ emissions to 4.99 tons per rolling 12-month period is insufficient to restrict PTE without additional limitations on production or operations. Id. at 10, 30 (citing Permit Condition 5.C.1). For support, the Petitioner relies on various definitions of “potential to emit,” including those contained in the county, state, and federal regulations. See id. at 6, 7, 10, 13 (citing PCAQCD Code § 1-3-140(104); AAC § R18-2-101.109; 40 C.F.R. §§ 51.165(a)(1)(iii), 51.166(b)(4), 52.21(b)(4)). The Petitioner asserts that these definitions “require[] production or operating hour limitations to limit [PTE],” and that emission limitations alone are not sufficient to restrict PTE. Id. at 13. This position is based largely on the Petitioner’s interpretation of the 1987 Louisiana-Pacific federal District Court decision and a 1989 EPA guidance document that followed the decision. Id. at 7–8, 13–14. The Petitioner also addresses PCAQCD’s justification for not including production or operating limits, reiterating the Petitioner’s view that this runs afoul of the EPA’s 1989 guidance. Id. at 14.

Additionally, the Petitioner addresses AAC § R18-2-306.01, an EPA-approved SIP provision that addresses voluntary limits taken to avoid applicable requirements. Id. at 12. After quoting this regulation, the Petitioner suggests that it is “intended to ensure practical enforceability of emission limits intended to limit [PTE] of an emissions unit or a source.” Id. at 13. The Petitioner does not further address this provision within this claim.

The Petitioner also relies heavily on PCAQCD Code § 3-1-084, which the Petitioner asserts is applicable for multiple reasons. First, the Petitioner states that this regulation is applicable

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13 It appears that the Petitioner intended to cite AAC § R18-2-101(110), not 101(109).
15 Petition Ex. 7, Terrell E. Hunt and John S. Seitz, EPA, Guidance on Limiting Potential to Emit in New Source Permitting (June 13, 1989). The Petitioner also cites a 2002 objection from EPA Region 4 articulating similar principles. Id. at 14 (citing Petition Ex. 9, Objection to Quebecor World Franklin Title V Permit (August 29, 2002)).
because it is part of the EPA-approved SIP. \textit{Id.} at 11.\footnote{16 For support, the Petitioner cites 40 C.F.R. § 52.120(c), Table 8 (listing EPA-approved SIP regulations for Arizona), PCAQCD Code § 1-3-140(15) (definition of applicable requirement), AAC § R18-2-101(16) (same), and 40 C.F.R. § 70.2 (same). \textit{Id.} at n.42, n.43. See also \textit{id.} at 6 (asserting that PCAQCD’s statement that this regulation is not approved in the SIP for the area is legally incorrect, requiring an EPA objection to the Permit).} The Petitioner also contends that this regulation is applicable because this Pinal County rule is more stringent than the corresponding state requirements, and a delegation agreement between Arizona and Pinal County provides that the more stringent of the county or state regulations applies to permit modifications. \textit{Id.} at 5–7. Additionally, the Petitioner observes that the Permit itself cites PCAQCD Code § 3-1-084, among other provisions, as authority for the 4.99 ton per 12-month rolling PM$_{10}$/PM$_{2.5}$ emission limit at issue in this claim. \textit{Id.} at 6, 11. As the Petitioner states, PCAQCD Code § 3-1-084 provides: “A permit may, for the purpose of creating federally enforceable conditions that limit the potential emissions of a source, designate as a ‘federally enforceable provision’ (‘FEP Limit’) any emission limit in conjunction with a production limit and/or operational limit expressed in the permit.” The Petitioner argues that the latter part of the quoted provision expressly requires a production and/or operational limit in conjunction with an emission limit in order to effectively limit PTE. \textit{Id.} at 14. The Petitioner disputes PCAQCD’s alternative interpretation of this provision. See \textit{id.} at 14–15.

The Petitioner concludes the first part of this claim with a comparison of the PM$_{10}$/PM$_{2.5}$ emission limit with other emission limits on NO$_x$ and CO. The Petitioner asserts that the PM$_{10}$/PM$_{2.5}$ limit is effectively far more stringent than the NO$_x$ and CO limits in terms of its impact on average hours of operation. \textit{Id.} at 15; see \textit{id.} at 16–17. The Petitioner asserts that this demonstrates why the Permit must include specific limits on production or hours of operation. \textit{Id.} at 17.

\textit{Enforceable as Practical Matter}

In the second part of this claim, the Petitioner asserts that the 4.99 ton per 12-month rolling PM$_{10}$/PM$_{2.5}$ emission limit is ineffective to limit PTE because it is not practically enforceable. Quoting EPA guidance from 1995,\footnote{17 Petition Ex. 11, Kathie Stein, \textit{Guidance on Enforceability Requirements for Limiting the Potential to Emit through SIP and § 112 Rules and General Permits} at 6 (Jan. 25, 1995).} the Petitioner states that in order to be enforceable, limitations must specify (1) a technically accurate limitation, (2) the time period of the limitation, and (3) the method to determine compliance, including appropriate monitoring, recordkeeping, and reporting. \textit{Id.}.

Regarding the first criteria, the Petitioner argues that because all other permit emission limits would allow significantly more hours of operation than the PM$_{10}$/PM$_{2.5}$ limit, there is no assurance that the PM$_{10}$/PM$_{2.5}$ limit is technically accurate or sufficient. \textit{Id.} at 18.

Regarding the third criteria, the Petitioner challenges the sufficiency of monitoring used to demonstrate compliance with the PM$_{10}$/PM$_{2.5}$ limit. See \textit{id.} at 18–21. The Petitioner alleges multiple problems.
The Petitioner observes that the Permit’s methodology for calculating emissions relies on emission factors. *Id.* at 18 (citing Permit Condition 6.G.5.c). Specifically, the Permit specifies an initial emission factor (0.011 pounds per MMBtu during non-startup modes), to be superseded once stack test data is available. *Id.* The Petitioner states that the initial emission factor listed in the Permit was supplied by the vendor of the new turbines. *Id.* The Petitioner challenges this emission factor because neither the permit application nor other portions of the permit record support the accuracy of this emission factor. *Id.* at 18–19 (citing 40 C.F.R. §§ 70.12(a)(2), 70.13; *In the Matter of Piedmont Green Power, LLC,* Order on Petition No. IV-2015-2 at 15 (December 13, 2012) (*Piedmont Green Power Order*)).

The Petitioner also challenges the Permit requirement to conduct performance testing every five years. *Id.* at 19, 31 (citing Permit Condition 6.C.5). The Petitioner claims that such infrequent testing is wholly inadequate to assure continuous compliance with a rolling 12-month limit, particularly where the Permit does not contain any other requirements to assure compliance with these limits. *Id.* at 19–20 (citing *In the Matter of Yuhuang Chemical Inc. Methanol Plant*, Order on Petition Nos. VI-2017-5 & VI-2017-13 at 20–21 (April 2, 2018); *In the Matter of Fort James Camas Mill*, Order on Petition No. X-1999-1 at 17 (December 22, 2000)). The Petitioner asserts that this infrequent stack testing not only undermines the practical enforceability of the limit, but also is inconsistent with title V regulations governing periodic monitoring. *Id.* (citing PCAQCD Code § 3-1-081(A)(3)(b); AAC § R18-2306(A)(3)(c)).

Moreover, the Petitioner asserts that the Permit term establishing the methodology for calculating PM$_{10}$ emissions from stack test data is “confusing and unlawful.” *Id.* at 20, 32 (citing Permit Condition 6.G.5.a).18 The Petitioner provides various reasons: (i) the permit term references “all units,” but the 4.99 ton per 12-month rolling limit applies only to the two new turbines; (ii) the term refers to “aggregate fuel flows/heat input,” which the Petitioner presumes to mean the total fuel flows/heat input to each turbine, including both new and existing units; and (iii) the permit term does not explicitly require each turbine’s individual PM$_{10}$ emission factor to be multiplied by each turbine’s individual portion of aggregate fuel flows/heat input in order to calculate emissions from the individual turbine. *Id.* The Petitioner asserts that these ambiguities undermine the enforceability of the PM$_{10}$/PM$_{2.5}$ limit. The Petitioner also asserts that PCAQCD did not provide a meaningful response to comments raising this issue,19 presenting an independent basis for the EPA’s objection. *Id.* at 20 (citing 40 C.F.R. § 70.7(h)(6).

Additionally, the Petitioner notes that although the Permit specifies the test methods that SRP must use during stack tests (specifically, Method 5 and Method 202), it also allows the source to use “equivalent methods as approved by the District pursuant to the test plan described below.” *Id.* at 20–21, 30, 31 (quoting Permit Condition 6.A.1, citing Condition 6.C.1). The Petitioner finds fault with this allowance for alternative/ equivalent methods because the Permit does not specify (i) the alternative method; (ii) the procedure for approving the alternative; or (iii) whether

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18 The cited permit term provides: “Once initial performance testing has been performed per Section §6.A of this permit, the highest PM/PM$_{10}$/PM$_{2.5}$ emission factor for non-startup periods for such simple cycle combustion turbine shall be used until superseded by the results of subsequent performance testing.”

19 This RTC-focused claim follows discussion of both the alleged ambiguities discussed in this paragraph as well as issues related to the frequency of stack testing discussed previously. The RTC-focused claim seems most closely related to the Petitioner’s allegations about ambiguous permit terms, given that the RTC does address the stack test frequency issue. See RTC at 7.
the public or the EPA could review the alternative method. *Id.* at 21. Because compliance could be based on a not-yet-specified test method, the Petitioner claims that the Permit fails to satisfy the requirement that compliance assurance provisions be “replicable” or “verifiable.” *Id.* at 21 (citing AAC § R18-2-306.02(C)(2), (E)).

The Petitioner concludes by reiterating that the foregoing alleged defects render the emission limit unenforceable as a practical matter, and accordingly insufficient to restrict the PTE from the two new turbines below the applicable NNSR and PSD major modification thresholds. *Id.* at 21. Accordingly, the Petitioner asserts that it was inappropriate to issue the Permit without addressing NNSR and PSD requirements. *Id.* at 21–22.

**EPA’s Response:** For the following reasons, the EPA grants in part and denies in part the Petitioner’s request for an objection on this claim.

The Petitioner has demonstrated that, in some respects, the emission limit intended to restrict the two new turbines’ PM_{10} and PM_{2.5} emissions to a level below the NNSR and PSD applicability thresholds is not enforceable as a practical matter.\(^{20}\)

For NNSR and PSD applicability purposes, determining whether emission increases associated with construction of new emission units (like the two turbines at issue here) exceed relevant thresholds for triggering major source NSR permitting requirements involves calculating PTE. Under the relevant SIP-approved regulations that govern this inquiry, PTE is defined as:

[T]he maximum capacity of a stationary source to emit a pollutant, excluding secondary emissions, under its physical and operational design. Any physical or 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 legally and practically enforceable by the Department or a county under A.R.S. Title 49, Chapter 3; any rule, ordinance, order or permit adopted or issued under A.R.S. Title 49, Chapter 3 or the state implementation plan.

AAC § R18-2-101.110; see 40 C.F.R. §§ 51.165(a)(1)(iii), 51.166(b)(4), 52.21(b)(4) (analogous federal regulations); see also PCAQCD Code § 1-3-140(104) (analogous Pinal County

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\(^{20}\) The EPA has explained that in certain situations, NSR permitting decisions that are established through the NSR permitting process are not properly re-considered by the EPA in response to a title V petition. *See, e.g., In the Matter of Big River Steel, LLC, Order on Petition No. VI-2013-10 at 8–20 (October 31, 2017). However, here, no NSR permit has been issued by PCAQCD. An emission limit designed to restrict PTE to levels below which major and minor NSR permitting requirements apply was established exclusively through a title V permit action. In this situation, where PCAQCD determined that no NSR requirements were applicable to construction of new emissions units, it is proper for the EPA to address the Petitioner’s challenges to the emission limit on which that applicability decision rests in order to determine whether the title V permit contains all NSR-related “applicable requirements.” *Cf. In the Matter of BP Products North America, Inc. Whiting Business Unit, Order on Petition No. V-2021-9 at 13 n.24 (March 4, 2022).
regulations). Therefore, if a permit applicant asks a permitting authority to establish enforceable limits that are sufficient to restrict PTE, the facility’s “maximum capacity to emit” for PTE purposes is calculated based on those limits. Importantly, only limits that meet certain criteria may be considered enforceable and therefore effective to restrict a facility’s PTE. In sum, for a permit limit to effectively restrict PTE, it must be enforceable as both a legal and a practical matter. There is a substantial body of EPA guidance and administrative decisions reflecting the EPA’s views on the effectiveness and enforceability of limits taken to restrict PTE under EPA regulations.

Production/Operating Limits

The Petitioner argues that the definition of PTE in AAC § R18-2-101.110 requires that any limit taken to restrict PTE must be expressed as a direct limitation on operation (e.g., operating hours, production levels, or types of material combusted), and that limitations on emissions alone cannot be used to restrict PTE (subject to only two exceptions). For support, the Petitioner focuses on the 1987 Louisiana-Pacific decision,22 a 1989 EPA guidance document addressing PTE, and a 2002 objection lodged by an EPA regional office. See Petition at 7, 8, 14. This is an incomplete and oversimplified view of the EPA’s interpretation of the definition of PTE in the EPA’s regulations (which the relevant Arizona regulations closely resemble). In general, the EPA does not interpret the federal regulations to require production and/or operating limits in all situations. The 1989 guidance cited by the Petitioner identified two circumstances in which emission limits (instead of production and/or operating limits) could be effectively used to restrict PTE. Over the last several decades, the EPA has explored numerous additional situations in which properly supported emission limits may be enforceable as a practical matter and

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21 As explained later in this response, infra page 15, the Pinal County regulation cited by the Petitioner does not appear to directly govern calculations of PTE for major sources like Desert Basin. However, given that the relevant county, state, and federal definitions of PTE are substantively similar, this discrepancy does not affect this portion of the EPA’s response.


23 Notably, the Louisiana-Pacific decision involved markedly different facts from those at issue here. The Louisiana-Pacific court held that “blanket restrictions on actual emissions” that “would be virtually impossible to verify or enforce” are not properly considered in calculating PTE. 682 F. Supp. at 1133. It is also worth noting that this decision from the U.S. District Court for the District of Colorado is not binding on the EPA beyond the specific case resolved by that 1987 decision.
therefore used to restrict PTE. Specifically, the EPA has spoken to this issue through title V petition orders, EAB decisions, and NSR-related rules. Thus, the Petitioner’s suggestion that the definition of PTE in the EPA’s regulations (or the more directly relevant Arizona regulations) must be read to categorically prohibit the use of emission limits (without production or operating limits) to restrict PTE is incorrect. By the same token, it would also be incorrect to assume that all emission limits are inherently effective to restrict PTE. Determining whether a limitation is enforceable as a practical matter and therefore effective to restrict PTE under either federal or state regulations necessarily requires a case-by-case, fact-specific inquiry. As with all other permitting decisions, the permitting authority must explain the basis for its decision, and a petitioner challenging such a decision must demonstrate that this decision was contrary to the Act and governing regulations. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. §§ 70.7(a)(5), (h)(6), 70.12(a)(2).

Here, PCAQCD provided an explanation as to why it believed the emission limits at issue were enforceable as a practical matter and sufficient to restrict PTE, within the meaning of the Arizona and Pinal County regulations. See RTC at 2–5. With respect to the District’s decision to rely on an emission limit (as opposed to a production or operating limit), the Petitioner’s rebuttal relies on the EPA’s 1989 guidance, which considers the federal regulations, but not the specific Arizona laws applied by PCAQCD. See Petition at 14. As noted in the preceding paragraph, the Petitioner’s focus on the EPA’s 1989 guidance is incomplete and unconvincing. The Petitioner has not examined the nature of the emission units and pollutants at issue—PM_{10} and PM_{2.5} emissions from new gas-fired simple cycle turbines used as “peaking” units—or explained why it believes that production or operating limits are the only appropriate means of restricting PTE for this type of project.

The Petitioner relies on other legal authorities beyond the definitions of PTE (cited previously) to support its argument that production or operating limits are necessary. However, the Petitioner’s reference to AAC § R18-2-306.01 undermines, rather than supports, the Petitioner’s general argument. This regulation does not require the use of production or operating limits to restrict PTE, and instead expressly acknowledges that properly supported emission limitations could be used for this purpose. AAC § R18-2-306.01(A), (B).

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24 See Piedmont Green Power Order at 5–8, 10–12, 14–16, 19–24; Yuhuang I Order at 13–15; Hu Honua I Order at 9–13; Kentucky Syngas Order at 28–30; Cash Creek II Order at 14–19; Pope & Talbot Order at 4–5; Pencor-Masada Order at 21–25.
26 E.g., 40 C.F.R. §§ 49.152 (Tribal minor NSR rule establishing criteria for the enforceability of emission limitations for purposes of restricting PTE), 52.21(aa)(2)(i)(a), (aa)(2)(v) (Plantwide Applicability Limit regulations establishing a mechanism to create enforceable emission limits based on existing actual emissions that are designed to ensure that emissions increases from future modifications do not exceed NSR major modification thresholds).
27 In re Tucson Electric Power, 17 EAD at 687–88 n.7 (rejecting arguments that “any permit using emission factors and monitoring of control devices to verify compliance with an emissions cap can be summarily affirmed as sufficient to ensure the practical enforceability of that cap” and noting that prior EAB decisions and EPA petition orders dealing with limits on PTE have “turned on a fact-based analysis of the permit in question, the nature of the facility, and the claims of the petitioner”).
28 The Petitioner’s only fact-based argument is that specific limits on production or hours of operation are necessary because the PM_{10}/PM_{2.5} emission limit is effectively more stringent than limitations on other pollutants. See Petition at 15–17. However, the Petitioner does not explain—and it is not clear to the EPA—how this fact is relevant to the issue at bar.
The Petitioner also relies heavily on PCAQCD Code § 3-1-084. As an initial matter, there is some confusion as to whether this regulation is an “applicable requirement” against which the EPA must judge the Permit. The Petitioner argues that this rule is applicable, Petition at 11; PCAQCD implies that it is not, RTC at 6.

To start, PCAQCD Code § 3-1-084 is an EPA-approved SIP regulation. See 40 C.F.R. § 52.120, Table 8. For this SIP regulation to be an “applicable requirement,” it must “apply to” the source.\(^{29}\) This depends on which SIP rules—Arizona’s, or PCAQCD’s—apply to a given permit action or permit condition. In general, Arizona (not PCAQCD) has original jurisdiction over all types of NSR permitting decisions for major sources in Pinal County. (This division of authority is explained in a document approved into the Arizona SIP.\(^{30}\) Although Arizona has delegated to PCAQCD the state’s authority to implement the state’s NSR program for major sources, this delegation of authority necessarily requires implementing the state’s NSR rules. Thus, as a general matter, it is Arizona’s NSR regulations—not PCAQCD’s regulations—that govern preconstruction permitting requirements for major sources, including requirements related to major NSR applicability. There is an exception to this principle, however. The governing delegation agreement between Arizona and PCAQCD states that “all permits shall include the elements set forth in [state rules] or locally applicable air quality rules, whichever is more stringent.”\(^{31}\) So, Arizona’s state regulations do not completely supplant PCAQCD’s rules, which remain applicable and enforceable to the extent they are more stringent than Arizona’s.

Here, the relevant question is whether PCAQCD Code § 3-1-084 is more stringent than the corresponding Arizona regulations. The Petitioner asserts that § 3-1-084 is more stringent and contends that “this County rule expressly requires a production limit and/or operational limit in conjunction with an emission limit to be expressed in the permit to create a federally enforceable provision to limit [PTE].” Petition at 6–7, 14. This position is at least a plausible one. This regulation states, in part: “A permit may, for the purpose of creating federally enforceable

\(^{29}\) See 40 C.F.R. § 70.2 (defining “applicable requirement” to include requirements of the SIP “as they apply to emission units in a part 70 source”).

\(^{30}\) State Implementation Plan Revision: New Source Review – Supplemental Information, Docket No. R09-OAR-2015-0187-0006 Attachment A-3 at 5 (adopted July 2, 2014) (2014 NSR SIP Supplement) (“Under subsection (1) [of ARS 49-402], ADEQ has original jurisdiction over major sources in a county ‘that has not received approval from the administrator [of EPA] for new source review … and prevention of significant deterioration [PSD].’ The plain language of subsection (1) gives ADEQ original jurisdiction over all major sources in a county, unless the county has obtained EPA approval [or delegation] of both the [nonattainment] new source review and PSD programs. . . . Pinal County has a SIP-approved PSD program but lacks any form of EPA approval for nonattainment NSR. ADEQ therefore has original jurisdiction over major sources in Pinal County, but has delegated that jurisdiction to the County under A.R.S. 49-107.” (emphasis and some alterations in original)); see also 40 C.F.R. § 52.152(c)(162)(ii)(A)(3) (identifying the 2014 NSR SIP Supplement as an approved part of the Arizona SIP); 86 Fed. Reg. 31929 (June 16, 2021) (“[T]he ADEQ has permitting jurisdiction over major sources in Pinal County (currently delegated to Pinal County Air Quality Control District) . . . .”); TSD at 8; RTC at 1. Note also that the Arizona statute underlying this division of authority is also approved as a non-regulatory part of the Arizona SIP. ARS 49-402; 40 C.F.R. § 52.120(e), Table 3.

\(^{31}\) 2014 NSR SIP Supplement at B-9 (emphasis added). See also 2014 NSR SIP Supplement at 7 (“Under the delegation agreement between ADEQ and PCAQCD, the county is obligated to enforce state major NSR rules, but must also enforce its own rules to the extent they are more stringent.”). Note that the delegation agreement was included as Appendix B of the 2014 NSR SIP Supplement that is approved in the Arizona SIP (described in the preceding footnote).
conditions that limit the potential emissions of a source, designate as a ‘federally enforceable provision’ (‘FEP Limit’) any emission limit in conjunction with a production limit and/or operational limit expressed in the permit.” PCAQCD Code § 3-1-084 (emphasis added). Thus, once a source elects to use this authority to restrict its PTE, this regulation may be read to require additional measures—both an emission limit as well as a production and/or operating limit—that neither AAC § R18-2-101.110 nor AAC § R18-2-306.01 would necessarily require (as explained earlier in this response). Accordingly, PCAQCD Code § 3-1-084 could potentially be considered “more stringent” and therefore applicable to major sources within Pinal County.

PCAQCD’s permit record does not directly confront this stringency issue and contains conflicting information regarding the applicability of § 3-1-084. On one hand, the Permit itself cites § 3-1-084 as the legal authority for the PTE limit at issue in this claim. Permit Condition 5.C.33 On the other hand, PCAQCD’s RTC states in passing that “the regulations applicable to the draft permit are ADEQ’s . . .” RTC at 6. PCAQCD does not elaborate on this idea with respect to § 3-1-084. Although the District suggests that § 3-1-084 does not necessarily require production or operating limits, it is unclear whether this argument was meant to prove (i) that this rule is no more stringent than the corresponding Arizona regulations (and is therefore inapplicable) or (ii) that the Permit satisfies this rule. In any case, the District’s argument is unclear. PCAQCD does not explain why the regulation’s reference to “any emission limit in conjunction with a production limit and/or operational limit” does not mean what the Petitioner asserts it says. Moreover, PCAQCD’s reliance on general EPA guidance about the practical enforceability of limits taken to restrict PTE does little to elucidate the meaning of this District-specific regulation.

In summary, because the permit record is unclear as to (i) whether PCAQCD Code § 3-1-084 is applicable, (ii) whether this rule requires production or operating limits (in addition to emission limits), and accordingly (iii) whether the Permit satisfies this rule, the EPA grants this portion of the Petition.

**Enforceable as a Practical Matter**

Regardless of the type of limitation, only limitations that are enforceable as a practical matter can restrict PTE under AAC § R18-2-101.110. The Petitioner first asserts that the PM$_{10}$/PM$_{2.5}$ emission limit is not enforceable as a practical matter because it is not “technically accurate or sufficient.” Petition at 18. For support, the Petitioner observes that the PM$_{10}$/PM$_{2.5}$ limit is effectively more restrictive than limitations on other pollutants insofar as its effect on hours of operations. *Id.* However, the Petitioner does not explain—and the EPA is at a loss to understand—how the relative stringency of different permit limitations on other pollutants has

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32 That is, the EPA acknowledges the Petitioner’s suggestion that: “A plain reading of the regulation reveals that the term ‘may’ gives Pinal County initial discretion to employ a FEP in a permit. However, once a FEP limit is designated, it must be ‘in conjunction with a production limit and/or operational limit expressed in the permit.’” Petition at 15 (quoting PCAQCD Code § 3-1-084). The EPA reserves judgement on this issue in the hope that PCAQCD produces a clearer position.

33 Additionally, it is worth noting that PCAQCD Code § 3-1-081 (which is part of the EPA-approved part 70 program as well as the EPA-approved SIP) specifically refers to § 3-1-084 as the basis for federally enforceable provisions designed to restrict a source’s PTE.
any bearing on whether the PM$_{10}$/PM$_{2.5}$ limit is itself technically accurate or sufficient to restrict PTE. Accordingly, this part of the claim is denied.

The Petitioner next asserts that the limit is not enforceable because it is not supported by sufficient monitoring. *Id.* The Permit includes several conditions designed to assure compliance with these limits, including Conditions 6.A and 6.G.5. In general, these conditions require the facility to calculate monthly PM$_{10}$ emissions by multiplying fuel flows/heat input by emission factors either supplied by the turbine manufacturer or established during periodic performance tests. *See* Permit Condition 6.G.5.a. The Petitioner acknowledges that this general methodology is essentially the only option available for measuring PM emissions from gas-fired turbines, conceding that “there are not other types of monitoring that can be done.” Petition at 20. Nonetheless, the Petitioner contests specific aspects of this calculation methodology.

Regarding the Petitioner’s claim that the permit record does not support the accuracy of the vendor-supplied emission factor (to be used until superseded by performance testing), the Petitioner has presented no basis for the EPA’s objection. It is the Petitioner’s burden to demonstrate that the existing permit terms are insufficient. 42 U.S.C. § 7661d(b)(2). However, the Petitioner does not provide a single reason to question the accuracy of this initial emission factor. Given that the turbines in question are new, it is unclear what alternatives to a vendor-supplied emission factor would be appropriate. In any case, given that the vendor-supplied emission factor will be used only until an initial performance test is completed (within 60 days of achieving maximum production rate, but no later than 180 days after initial start-up), the vendor-supplied emission factor will be used to calculate emissions for a very limited period of time until data from operations are available. Permit Conditions 6.A.1, 6.G.5.c. Thus, the Petitioner’s concerns with using vendor-supplied emission factors appear to have little practical significance.

Regarding the Petitioner’s claim that stack testing every five years is not frequent enough to assure compliance with the rolling 12-month PM$_{10}$/PM$_{2.5}$ limit, the Petitioner has similarly failed to demonstrate a basis for an EPA objection. Determining whether additional or more frequent monitoring is necessary requires a fact-specific analysis, guided by various technical considerations. *See, e.g., In the Matter of CITGO Refining and Chemicals Company,* Order on Petition No. VI-2007-0 at 6–8 (May 28, 2009). Although stack testing every five years would likely be insufficient if this were the only permit term designed to assure compliance with the rolling 12-month limit, such is not the case here (contrary to the Petitioner’s suggestion). The Permit also requires continuous monitoring of fuel usage, which is used in conjunction with the emission factors derived from stack tests to calculate monthly PM emissions. Permit Conditions 4.A.4, 6.C.5, 6.G.3.b.ii, 6.G.5.a. The Petitioner does not explain why more frequent stack testing is necessary to serve the purpose of updating emission factors. For example, the Petitioner has not alleged, much less demonstrated, that emissions are likely to be highly variable or that performance is likely to degrade over time, such that more frequent updates to the emission factors (via more frequent stack testing) may be necessary.

Although the Petitioner has not demonstrated that the Permit’s initial reliance on vendor-supplied emission factors and five-year stack tests warrants an objection, the Petitioner *has* demonstrated that the specific permit terms detailing the monthly PM$_{10}$/PM$_{2.5}$ calculation methodology are too ambiguous to be enforceable as a practical matter. In relevant part, these conditions state:
As a surrogate for monitoring actual PM$_{10}$ emissions for all units, Permittee shall on a monthly basis, calculate the quantity of emissions, by multiplying the aggregate fuel flows/heat input by the corresponding PM$_{10}$ emission factors established in the performance tests conducted during the permit term, or otherwise defined in this permit.

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Once initial performance testing has been performed per Section §6.A of this permit, the highest PM/PM$_{10}$/PM$_{2.5}$ emission factor for non-startup periods for such simple cycle combustion turbine shall be used until superseded by the results of subsequent performance testing.


These conditions suffer from various problems. First, as the Petitioner asserts, the Permit’s reference to “aggregate fuel flows/heat input” is ambiguous. It is unclear whether this means (i) that the total (i.e., aggregate) monthly heat input for each individual turbine will be used to calculate emissions from each turbine individually, or (ii) that the monthly heat input for both new simple cycle turbines combined (i.e., aggregated) will be used to calculate emissions from both turbines collectively, or (iii) that some other aggregation of heat input will be used (e.g., from “all units” referenced in this permit term). Relatedly, as the Petitioner asserts, the Permit is unclear as to whether emissions from each individual turbine will be calculated using an emission factor derived from each turbine’s individual stack test. The reference to the “corresponding” emission factor in Condition 6.G.5.a suggests that each turbine will, in fact, calculate emissions using a turbine-specific emission factor. However, the reference to the “highest PM/PM$_{10}$/PM$_{2.5}$ emission factor for such simple cycle combustion turbine” in Condition 6.G.5.c could be read to suggest otherwise. It is unclear whether “highest” was intended to mean (i) that the higher stack test result from the two identical turbines would be used to calculate emissions from both “such” turbines, or (ii) that a higher emission factor established by an older stack test, or supplied by the vendor, would continue to be used (i.e., would not be superseded) if a newer stack test resulted in a lower emission rate, or (iii) something else, such as the highest emission factor from an individual test run. These ambiguities in the Permit are compounded by the complete lack of an explanation from PCAQCD; the District did not specifically address public comments questioning the meaning of these permit terms. 40 C.F.R. §70.7(h)(6). Without more clearly written permit terms, and absent any explanation in the permit record, there is simply too much ambiguity in the Permit’s compliance demonstration methodology for the PM$_{10}$/PM$_{2.5}$ emission limit to be considered enforceable as a practical matter. Therefore, the EPA grants the Petition with respect to this issue.

The EPA also grants the Petitioner’s claim regarding the use of alternative or equivalent test methods during periodic stack testing. As a general matter, there is nothing inherently problematic with a permitting authority establishing a mechanism for approving alternative, equivalent test methods to replace the methods specified in a permit. Such a mechanism could be analogous to those provided for in the EPA’s general provisions supporting the NSPS and NESHAP regulations. See 40 C.F.R. §§ 60.8(b), 60.13(i), 63.7(e)(2), 63.7(f), 63.8(b)(1), and
63.8(f). However, it would be problematic if a permitting authority approved an alternative test method or monitoring procedure entirely outside of the permitting process and the title V permit was not updated (following the appropriate procedures) to specify the test method or monitoring now being used to demonstrate compliance. Among other reasons, this would be problematic because the title V permit would no longer “set forth,” “include,” or “contain” the monitoring necessary to assure compliance with all applicable requirements and permit terms. 42 U.S.C. § 7661c(a), (c); 40 C.F.R. § 70.6(a), (a)(3), (c). Here, the Permit states that performance tests shall be conducted “using standard test methods approved by the EPA (40 CFR Part 60) specified below, or equivalent methods as approved by the District pursuant to approval of the test plan required below.” Permit Conditions 6.A.1, 6.C.1. The Permit then states: “Test protocols for all the tests shall be submitted to the District at least thirty (30) days prior to the test.” Permit Conditions 6.A.2, 6.C.2. It is not clear from these provisions whether PCAQCD’s approval process would culminate in revisions to the title V permit to reflect the approved alternative test methods (as is required), or whether this process would occur entirely off-permit (which would be problematic). Moreover, PCAQCD’s response to comments raising these concerns was cursory at best, simply indicating that any alternatives would be approved by the Department. See RTC at 10. Accordingly, because the Permit and permit record are inadequate to determine whether the Permit will “set forth” monitoring sufficient to assure compliance with all applicable requirements, the EPA grants the Petition with respect to this issue.

In summary, the Petitioner has demonstrated that: (i) the permit record is inadequate to determine whether PCAQCD Code § 3-1-084 is applicable and would require production and/or operating limits in addition to the emission limit designed to restrict PTE; (ii) the Permit is not enforceable as a practical matter due to ambiguities in the methodology used to calculate PM$_{10}$ and PM$_{2.5}$ emissions for purposes of demonstrating compliance with the PM$_{10}$/PM$_{2.5}$ emission limit; and (iii) the permit record is inadequate to determine whether the Permit’s references to equivalent test methods are permissible. These issues all undermine the effectiveness and enforceability of the PM$_{10}$/PM$_{2.5}$ limit designed to restrict PTE of the two new simple cycle

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$^{35}$ See also In the Matter of ExxonMobil Fuels & Lubricant Co., Baton Rouge Refinery, Order on Petition Nos. VI-2020-4, VI-2020-6, VI-2021-1, & VI-2021-2 at 25–26, 37–38 (March 18, 2022). Note that the EPA is evaluating this claim against the federal authorities cited herein, as opposed to AAC § R18-2-306.02, which does not appear to be applicable to the present permit action. See infra page 23.
Direction to PCAQCD: To the extent that PCAQCD intends to rely on limitations to restrict the PTE of the two new simple cycle turbines below the NNSR and PSD applicability thresholds, PCAQCD must ensure that such limits satisfy all applicable requirements and are enforceable as a legal and practical matter, per the requirements in AAC § R18-2-101.110. PCAQCD must more directly address the applicability of PCAQCD Code § 3-1-084 and, if applicable, must either more clearly explain how the Permit currently satisfies this requirement or revise the Permit to satisfy this requirement. In doing so, PCAQCD should coordinate with ADEQ to confirm PCAQCD’s interpretation of applicability of PCAQCD Code § 3-1-084 is consistent with the state's interpretation of permitting jurisdiction for this major source. PCAQCD must also revise the Permit to more clearly and unambiguously identify the methodology by which SRP will demonstrate compliance with the PM10/PM2.5 emission limit, addressing the specific issues granted by the EPA in this Order. Finally, PCAQCD must either update the Permit and/or permit record to ensure that the source’s title V permit will be updated following all relevant procedural requirements if and when PCAQCD approves a test methodology that differs from those identified in the Permit.


Petitioner’s Claim: The Petitioner contends that the EPA must object to the Permit because it fails to contain certain minor NSR requirements in AAC § R18–2–334 that the Petitioner asserts are “applicable requirements” for the two new turbines. Petition at 27–28. The Petitioner alleges that it was inappropriate to exempt the turbines from these requirements because permit limits on PM, PM10, PM2.5, NOx, VOCs, and CO—which were designed to limit PTE below the relevant

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36 In addition to the grounds for objection discussed in the body of the Petition, the Petitioner also presents a table after the “Conclusion” section of the Petition identifying specific permit terms that are allegedly “deficient for the reasons stated above” (i.e., within the body of the Petition). See Petition at 30–34. Most of the items in this table correspond to grounds for objection discussed in the body of the Petition, addressed in this Claim. However, several rows of the table are not discussed elsewhere in the Petition. Specifically, the Petitioner asserts: that emission limits in Condition 5.C are not defined “as a function of heat input,” despite a permit term referencing this phrase, Petition at 31 (citing Permit Term 6.A.4.b); that the Permit fails to define “excess emissions” for limits on PTE taken to avoid PSD, NNSR, and minor source permitting, id. at 33 (citing Permit Conditions 6.H–I); and that the Permit does not specifically require recordkeeping or reporting of emissions per rolling 12-month period, does not require recordkeeping of heat input from each turbine, and does not require reporting of PM2.5 emissions, id. at 33–34 (citing Permit Conditions 6.K.2, 6N, Appx A). These claims were not raised with reasonable specificity during the comment period (and the Petitioner has not alleged, much less demonstrated, that it was impracticable to do so, or that the grounds for objection arose after the comment period). Accordingly, these issues cannot be raised in a petition requesting the EPA’s objection, and the EPA denies the petition with respect to these issues. 42 U.S.C. § 7661d(b)(2). Additionally, the Petitioner asserts that Conditions 6.A.4.b and 6.C.4.b only pertain to PM10 and there are no similar conditions for PM2.5, id. at 31, and that the “[p]ermit should more specifically state that violations of the limits in §5.C could require permitting of Units SCCT4 and SCCT5 as a major modification or as subject to minor NSR permitting,” id. at 34 (citing Permit Condition 9). Because these table items (in addition to those discussed earlier in this footnote) reflect conclusory single-sentence allegations, unsupported by analysis or explanation of how the cited permit terms do not comply with any specific applicable requirements, they do not demonstrate a basis for the EPA’s objection. 40 C.F.R. § 70.12(a)(2).
minor NSR exemption thresholds—are inadequate. *Id.* at 22, 30 (citing AAC § R18-2-99\(^{37}\); Permit Condition 5.C.1-4).

As the Petitioner explains, the Arizona SIP definition of “Minor NSR Modification” specifically defines “potential to emit” as “the lower of a source’s or emission unit’s [PTE] or its allowable emissions.” *Id.* at 22–23 (citing AAC § R18-2-301(12)(e)(i))\(^{38}\). The Petitioner repeats the definition of PTE (discussed in the preceding claim) and also introduces the definition of “allowable emissions,” which includes a specific reference to “federally enforceable limits which restrict the operating rate or hours of operation,” among other provisions. *Id.* at 23 (citing AAC §§ R18-2-101(109),\(^{39}\) R18-2-101(13)). The Petitioner asserts that the emission limits in the Permit do not satisfy either of these definitions for multiple reasons.

First, the Petitioner claims that the emission limits are all insufficient because they are not accompanied by limits on operating hours or production rates (for any pollutant), or requirements related to the operation of control equipment (for NO\(_x\) and CO). *Id.* at 23.

Next, the Petitioner asserts that the PM\(_{10}\), PM\(_{2.5}\), and VOC emission limits are not practically enforceable due to the lack of sufficient monitoring (the Petitioner acknowledges that the Permit requires CEMS for NO\(_x\) and CO). *Id.* at 23. For support, the Petitioner references its discussion of PM\(_{10}/PM_{2.5}\) monitoring in its major NSR-focused claim (Claim 1.A–B), which the Petitioner asserts applies to VOC emissions “for similar reasons.” *Id.* at 24; see *id.* at 27, 31–32.

Additionally, the Petitioner contends that all of the emission limits fail to satisfy the requirements of AAC § R18-2-306.01, which requires, among other things, that emission limits imposed to avoid an applicable requirement be “at least as stringent as the emission limitations . . . that would otherwise be applicable to the source.” *Id.* at 24 (quoting AAC § R18-2-306.01(B)(1)). The Petitioner reiterates that the PM\(_{10}/PM_{2.5}\) limit effectively restricts the source’s hours of operations more than the limits on other pollutants, and the Petitioner discusses various implications of this discrepancy—generally involving SRP’s ability to operate for fewer hours, at a higher emissions rate than anticipated, while still remaining below the permitted emission limits. See *id.* at 24–25. The Petitioner suggests that the “at least as stringent” requirement underscores the need for specific limits on operating hours, production limits, or the operation of pollution control equipment. *Id.* at 25. The Petitioner asserts that PCAQCD did not specifically respond to comments raising this issue, providing an independent basis for the EPA’s objection. *Id.* at 25.

The Petitioner also claims that the Permit fails to satisfy AAC § R18-2-306.02, which the Petitioner asserts is an “applicable requirement” of the EPA-approved SIP (over PCAQCD’s insistence to the contrary). *Id.* at 26. The Petitioner states that under this regulation, an emission limit taken to avoid a requirement must “contain replicable procedures to ensure that the emissions cap is enforceable as a practical matter.” *Id.* The Petitioner asserts that the “replicable” requirement was not satisfied for the reasons discussed previously with respect to the alternative/

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\(^{37}\) AAC § R18-2-99 does not exist. It appears the Petitioner intended to refer to AAC § R8-2-101(101), which establishes permitting exemption thresholds for regulated minor NSR pollutants.

\(^{38}\) It appears that the Petitioner intended to cite R18-2-301(14)(c)(i), as opposed to (12)(c)(i).

\(^{39}\) It appears that the Petitioner intended to cite R18-2-101(110), not 101(109).
equivalent test method provision. *Id.* Further, the Petitioner asserts that the limits are not enforceable as a practical matter because they do not require operational or production limits or require pollution controls. *Id.* at 26–27 (citing AAC § R18-2-306.02(C)(2)). Finally, the Petitioner asserts that the monitoring for PM, PM\textsubscript{10}, PM\textsubscript{2.5}, and VOC is insufficient to satisfy Rule 306.02 for the reasons previously discussed. *Id.* at 27.

**EPA’s Response:** For the following reasons, the EPA grants in part and denies in part the Petitioner’s request for an objection on this claim.

The Petitioner’s claim challenging the limits taken to restrict the facility’s PTE for purposes of minor NSR applicability overlaps to some degree with the Petitioner’s major NSR-focused claim. However, this minor NSR-focused claim relies in part on different legal authorities and extends to emission limits on NO\textsubscript{x}, CO, VOC, and PM (in addition to PM\textsubscript{2.5} and PM\textsubscript{10}).

Regarding the Petitioner’s allegation that the emission limits are not enforceable as a practical matter because they are not supported by sufficient monitoring, the EPA grants this part of the claim to the extent it concerns PM, PM\textsubscript{10}, PM\textsubscript{2.5}, and VOC emissions—all of which rely on the same ambiguous permit terms to which the EPA objected in the preceding claim (Claim 1A–B). *See supra* pages 17–19.\(^40\)

The remainder of this claim is denied. Under the Arizona SIP definition relevant to minor NSR applicability, PTE is defined as the lower of PTE or “allowable emissions.” AAC § R18-2-301(14)(e)(i). Thus, if a permit limit is sufficient to satisfy *either* the definition of PTE or allowable emissions, it can restrict PTE for minor NSR applicability purposes. The Petitioner again suggests that limits on operating hours or production rate or the installation of control devices are necessary to restrict PTE under both the general definition of PTE as well as the newly introduced definition of allowable emissions. Petition at 22. However, as explained previously, the general definition of PTE in AAC § R18-2-101.110 does not necessarily require production or operating limits in all cases. *See supra* pages 13–14. Determining whether a limit is sufficient to restrict PTE is a case-by-case inquiry, and the Petitioner bears the burden to demonstrate that the Permit does not comply with the Act. 42 U.S.C. § 7661d(b)(2). Because the Petitioner has not provided the requisite analysis to support its claim, the Petitioner has not demonstrated that the Permit’s emission limit-based approach is inadequate for purposes of restricting minor NSR applicability, and this portion of the Petition is denied.\(^41\)

Regarding the Petitioner’s claim that the emission limits do not satisfy the AAC § R18-2-306.01 requirement that emission limits designed to restrict PTE be “at least as stringent as the emission limitations . . . that would otherwise be applicable to the source,” the Petitioner has not demonstrated a basis for the EPA’s objection. The only argument supplied by the Petitioner relates to the fact that the PM\textsubscript{10}/PM\textsubscript{2.5} limit is effectively more stringent than the limits on other pollutants. As with related arguments made elsewhere in the Petition, it is difficult to understand how this fact relates to the cited regulation. Notably, the Petitioner does not identify any

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\(^{40}\) With respect to NO\textsubscript{x} and CO, the Petitioner acknowledges that the Permit requires CEMS, and the Petitioner does not appear to challenge the monitoring associated with those pollutants.

\(^{41}\) Notably, unlike its claim regarding the types of limits sufficient to restrict PTE for major NSR purposes, the Petitioner does not rely on PCAQCD Code § 3-1-084 as a basis for its claim regarding minor NSR.
requirements that would otherwise be applicable to the source, much less explain how the Permit’s emission limits are less stringent than such requirements. Accordingly, this portion of the claim is denied.\textsuperscript{42}

The Petitioner also relies heavily on AAC § R18-2-306.02 as a basis for objection. Although this regulation (which expired and was removed from the Arizona state regulations) remains part of the EPA-approved Arizona SIP, the Petitioner has not demonstrated that it is applicable to the current permit action.\textsuperscript{43} Notably, similar to AAC § R18-2-306.01, AAC § R18-2-306.02 was designed as a voluntary mechanism for limiting a facility’s emissions in certain circumstances. However, neither SRP nor PCAQCD invoked this optional provision as a basis for establishing the emission limitations addressed in this claim; instead, they invoked R18-2-306.01. See Permit Condition 5.C. Thus, whether the Permit satisfies AAC § R18-2-306.02 is immaterial, and this portion of the Petition is denied.

**Direction to PCAQCD:** To the extent that PCAQCD intends to rely on limitations to restrict the PTE of the two new simple cycle turbines below the minor NSR applicability thresholds, PCAQCD must ensure that such limits satisfy all applicable requirements and are enforceable as a legal and practical matter. As PCAQCD revises the Permit to address the EPA’s objection described in the preceding claim (Claim 1.A–B), PCAQCD should make similar changes as necessary to address PM and VOC emissions. Specifically, PCAQCD should also consider whether PCAQCD Code § 3-1-084 is relevant for purposes of restricting the applicability of minor NSR (and make any changes to the Permit, if appropriate), and must ensure that the Permit clearly and unambiguously identifies the methodology by which SRP will demonstrate compliance with the relevant emission limits.

**Claim 2: The Petitioner Claims That “The Permit Fails to Ensure that the Modified Desert Basin Won’t Interfere with Attainment or Maintenance of the Ambient Air Quality Standards.”**

**Petitioner’s Claim:** The Petitioner asserts that the Permit is deficient because PCAQCD did not analyze whether the installation of the two new turbines would cause or contribute to a violation of ambient air quality standards. Id. at 28, 29–30. The Petitioner states that such analysis is required for projects that trigger either major NSR or minor NSR requirements. See id. at 28–29 (citing AAC §§ R18-2-334(C), R18-2-406(A)(5), R18-2-407; PCAQCD Code §§ 3-3-250(A)(5)(b), 3-3-260(A)(2)). Because the permit limits taken to avoid major and minor NSR

\textsuperscript{42} The Petitioner also claims that PCAQCD did not reply to comments raising this issue. However, PCAQCD did respond to the overarching public comments addressing AAC § R18-2-306.01, among other provisions. See RTC at 3–5. Given that it is not clear how or why this particular factual argument is relevant to the overarching petition claim or the sufficiency of the Permit, it is not clear that this was a “significant comment” warranting a specific response from PCAQCD. See 40 C.F.R. §70.7(h)(6); see also 85 Fed. Reg. 6431, 6440 (February 5, 2020) (discussing what constitutes a “significant comment”); In re: Tucson Electric Power, 17 E.A.D. 675, 695 (EAB 2018) (“The adequacy of a permit issuer’s response to comments must be evaluated in the context of the content, specificity, and precision of the submitted comments. . . . Where a comment lacks specificity and precision, the permit issuer’s obligation to respond is similarly tempered. It is well settled that permit issuers need not guess the meaning behind imprecise comments and are under no obligation to speculate about possible concerns that were not articulated in the comments.” (internal quotations omitted)).

\textsuperscript{43} See 40 C.F.R. § 70.2 (defining “applicable requirement” to include requirements of the SIP “as they apply to emission units in a part 70 source”).
requirements are insufficient to restrict PTE below the major and minor NSR thresholds (as described in the previous claims), the Petitioner alleges that an air quality analysis was required. *Id.* at 28.

**EPA’s Response:** For the following reasons, the EPA denies the Petitioner’s request for an objection on this claim.

As explained in the EPA’s responses to Claims 1.A–B and 1.C, the EPA is granting the Petition and objecting to the Permit because the emission limits taken to restrict PTE below the major and minor NSR thresholds are not enforceable as a practical matter. In response to this objection, PCAQCD has the option to revise the Permit to ensure that these limitations are enforceable as a practical matter, such that the project to install the two new turbines will not be subject to either major or minor NSR requirements. If this project remains exempt from major and minor NSR requirements, no analysis of the impacts of the project would be required by AAC §§ R18-2-334(C), R18-2-406(A)(5), R18-2-407 or PCAQCD Code §§ 3-3-250(A)(5)(b), 3-3-260(A)(2). PCAQCD’s response to this Order thus has the potential to render this claim moot and/or substantively change the EPA’s analysis of this issue. On the other hand, if PCAQCD determines that the projects do trigger major and/or minor NSR requirements, the issues raised in this claim may be relevant to and raised in such a future NSR construction permit action. Therefore, it is an appropriate exercise of the EPA’s discretion and a reasonable use of agency resources to not resolve this claim at this time. *E.g., Hu Honua I Order* at 14–15, 22. Accordingly, the EPA denies this claim.

**V. CONCLUSION**

For the reasons set forth in this Order and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), I hereby grant in part and deny in part the Petition as described in this Order.

Dated: JUL 28 2022

Michael S. Regan
Administrator