

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

Petition No. IX-2024-16

In the Matter of

Seguro Energy Partners LLC, Bella Energy Facility

Permit No. V20700.000

Issued by the Pinal County Air Quality Control District

**ORDER GRANTING IN PART AND DENYING IN PART A PETITION FOR OBJECTION TO A TITLE V
OPERATING PERMIT**

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated August 6, 2024 (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. V20700.000 (the Permit) issued by the Pinal County Air Quality Control District (PCAQCD) to the Seguro Energy Partners LLC, Bella Energy Facility (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 known 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 and objects to the issuance of the Permit. Specifically, the EPA grants Claim 1a, grants in part and denies in part Claim 1b, and denies 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 (Dec. 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. 40 C.F.R. § 70.1(b); 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. 32250, 32251 (July 21, 1992). 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.*

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

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.*

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).² Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA.³ The petitioner's demonstration burden is a critical component of CAA § 505(b)(2). 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. *Sierra Club v. Johnson*, 541 F.3d at 1265–66 ("[I]t is undeniable [that CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment of whether a petition demonstrates a permit does not comply with clean air requirements."); *NYPIRG*, 321 F.3d at 333. 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. *Citizens Against Ruining the Environment*, 535 F.3d at 677 (stating that § 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)).⁴ When courts have reviewed 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., MacClarence*, 596 F.3d at 1130–31.⁵ Certain aspects of the petitioner's demonstration burden are discussed in the following paragraph. A more detailed discussion can be found in the preamble to the EPA's proposed petitions rule. *See* 81 Fed. Reg. 57822, 57829–31 (Aug. 24, 2016); *see also In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana*, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

The EPA considers 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 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 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

² *See also New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2d Cir. 2003) (*NYPIRG*).

³ *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.

⁴ *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)).

⁵ *See also Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

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 (Jan. 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 contained in the permit record. 81 Fed. Reg. at 57832; see *Voigt v. EPA*, 46 F.4th 895, 901–02 (8th Cir. 2022); *MacClarence*, 596 F.3d at 1132–33.⁹ This includes a requirement that petitioners 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). 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 determining 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 on the draft permit; the permitting authority’s written responses to comments, including responses to all significant comments raised during the public

⁶ See also *In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 at 12 (Sept. 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 (Apr. 20, 2007); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (Jan. 8, 2007) (*Georgia Power Plants Order*); *In the Matter of Chevron Products Co., Richmond, Calif. Facility*, Order on Petition No. IX-2004–10 at 12, 24 (Mar. 15, 2005).

⁸ See also *In the Matter of Hu Honua Bioenergy*, Order on Petition No. IX-2011-1 at 19–20 (Feb. 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 (Dec. 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); *Georgia Power Plants Order* at 9–13 (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).

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 determining whether to grant or deny the petition. *Id.*

If the EPA grants a title V petition and objects to the issuance of a permit, a permitting authority may address the EPA's objection by, among other things, providing the EPA with a revised permit. 42 U.S.C. § 7661d(b)(3), (c); 40 C.F.R. § 70.8(d); *see id.* § 70.7(g)(4); 70.8(c)(4); *see generally* 81 Fed. Reg. at 57842 (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. If a final permit has been issued prior to the EPA's objection, the permitting authority should determine whether its response to the EPA's objection requires 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 revision 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 (Sept. 14, 2016); *In the Matter of WPSC, Weston*, Order on Petition No. V-2006-4 at 5–6, 10 (Dec. 19, 2007).

III. BACKGROUND

A. The Bella Energy Facility

Seguro Energy Partners has proposed to construct and operate the Bella Energy facility, a natural gas fueled electric generating station on an approximately 349-acre site located at northeast corner of the intersection of West Cornman Road and South Midway Road in Pinal County, Arizona. When operational, the facility will have a generating capacity of 490 MW, provided by ten natural gas fired aeroderivative GE Vernova LM6000PC simple cycle combustion turbines that will drive electricity generators, each approximately rated at 49 MW-gross generating capacity. The facility is a major stationary source for title V purposes and is a synthetic minor source with respect to Prevention of Significant Deterioration and Nonattainment New Source Review.

B. Permitting History

Seguro Energy Partners first applied for a title V permit for the facility on August 30, 2023. PCAQCD published notice of a Draft Permit on March 2, 2024, subject to a public comment period that ended on April 1, 2024. PCAQCD held a public hearing on April 1, 2024. On April 25, 2024, PCAQCD submitted a Proposed Permit, accompanied by its responses to public comments (RTC) and technical support document (TSD) to the EPA for its 45-day review. The EPA's 45-day review period ended on June 10, 2024, during which time the EPA did not object to the Proposed 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 ended on June 10, 2024. Thus, any petition seeking the EPA's objection to the Proposed Permit was due on or before August 9, 2024. The Petition was submitted on August 6, 2024. Therefore, the EPA finds that the Petitioner timely filed the Petition.

D. Environmental Justice

The EPA conducted an analysis using EPA's EJScreen¹⁰ to assess key demographic and environmental indicators within a five-kilometer radius of the Bella Energy facility. This analysis showed a total population of approximately 2,300 residents within a five-kilometer radius of the facility, of which approximately 65 percent are people of color and 46 percent are low income. In addition, EPA reviewed the EJScreen Environmental Justice Indexes, which combine certain demographic indicators with 13 environmental indicators. The following table identifies the Environmental Justice Indexes for the five-kilometer radius surrounding the facility and their associated percentiles when compared to the rest of the State of Arizona.

¹⁰ EJScreen is an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. See <https://www.epa.gov/ejscreen/what-ejscreen>. The information herein is based on a November 18, 2024, report using EJScreen version 2.3.

EJ Index	Percentile in State
Particulate Matter 2.5	87
Ozone	42
Nitrogen Dioxide	25
Diesel Particulate Matter	47
Toxic Releases to Air	40
Traffic Proximity	31
Lead Paint	83
Superfund Proximity	60
RMP Facility Proximity	84
Hazardous Waste Proximity	68
Underground Storage Tanks	31
Wastewater Discharge	87
Drinking Water Non-Compliance	97

IV. EPA DETERMINATIONS ON PETITION CLAIMS

The Petition includes one enumerated section titled “Grounds for Objection: The Final Permit Fails to Assure Compliance with Synthetic Minor Plantwide Limits on Hazardous Air Pollutant and Criteria Pollutant Emissions.” Petition at 4. Within this section, the Petitioner includes what the EPA has identified as two distinct claims, which are addressed separately in this Order. In its first claim, the Petitioner asserts that “[t]he Final Permit is deficient because it lacks practically enforceable provisions that assure compliance with emission limits for PM/PM₁₀/PM_{2.5}, VOC and HAP emissions from its combustion turbines.” *Id.* at 7. This Order splits this first claim into two subclaims, 1a and 1b, discussed below. In its second claim, addressed as Claim 2 below, the Petitioner asserts that significant changes were made to the Permit without an opportunity for public participation. *Id.* at 13.

A. Subclaim 1a: The Petitioner Claims That “The Final Permit’s [Hazardous Air Pollutants (HAP)] Emissions Limits Are Not Practically Enforceable.”

Petition Claim: The Petitioner claims that “the Final Permit is deficient because it lacks practically enforceable provisions that assure compliance with limits for . . . HAP emissions from its combustion engines.” Petition at 7. Specifically, as it pertains to Subclaim 1a, the Petitioner asserts that the Final Permit’s HAP emissions limits are not practically enforceable, and the Final Permit is deficient because it fails to establish monitoring, testing, and recordkeeping requirements to assure compliance with synthetic minor HAP emissions limits in Condition No. 5.C.6 of the Final Permit, as required by 42 U.S.C. § 7661c(a) and (c). *Id.*

The Petitioner explains that the Final Permit does not specify stack testing requirements used to determine compliance with applicable emissions limits for HAPs, despite the fact that the Final Permit *does* establish these stack testing requirements for various criteria pollutants. *Id.* at 8. The Petitioner states: “Instead, the Final Permit directs Seguro to calculate HAP emissions from its combustion turbines using fuel records and generic emission factors from AP-42 . . . , Section 3.1, and Table 3.1-3. Final Permit at Condition No. 6.F.6.” *Id.* (citing EPA’s AP-42, *Compilation of Air Pollutant Emissions*

Factors from Stationary Sources). Additionally, the Petitioner raises that the Final Permit “does not include any testing mechanism to confirm that these emission factors accurately predict actual emissions from the Facility’s combustion turbines during normal operations over the life of the Facility as its equipment ages and degrades.” *Id.*

In support of the claim that the Final Permit’s use of “generic emission factors” from AP-42 for calculating HAP emissions is inappropriate, the Petitioner states that, while the Final Permit requires the facility to include HAP emissions during normal operations as well as startup and shutdown events to calculate compliance with HAP emissions limits, the Final Permit “does not establish distinct emission factors for Seguro to use to calculate HAP emissions during normal operations and startup and shutdown events.” *Id.* (citing Conditions Nos. 5.C.6 and 6.F.3.d of the Final Permit). The Petition explains that this is problematic because “HAP emission rates—like PM emissions—may increase during startup and shutdown events due to incomplete combustion.” *Id.*

Moreover, the Petitioner states that the Final Permit “allows Seguro to conduct an unlimited number of turbine startups and shutdowns each year” and that “heat input to the turbines is significantly lower during periods of startup and shutdown than during normal operating loads” resulting in pollution control devices potentially “operating less efficiently than at normal operating loads.” *Id.* (citing Permit Application at 11). The Petitioner states that while the Permit Application “calculates worst-case annual startup and shutdown emissions presuming 5,000 events per year at the facility, the Final Permit does not include this number as an enforceable limit.” *Id.*

The Petitioner argues that these factors render the Final Permit deficient because “it fails to include any conditions for accurately calculating HAP emissions during startups and shutdowns to ensure compliance with plantwide HAP limits” and fails to “establish any limit on the amount of time that the Facility’s combustion turbines may be operated in modes that reduce pollution control performance,” rendering “the constraint on heat input to the turbines established by the [Permit] insufficient to assure compliance with plantwide HAP limits because those limits were calculated using unenforceable presumptions about the amount of time turbines would be operated outside of normal scenarios.” *Id.* at 10–11 (citing Conditions Nos. 5.C.6 and 5.C.7; 42 U.S.C. § 7661c(a), (c)).

The Petitioner opines that AP-42 emission factors are “unlikely to accurately predict actual emission rates” from the combustion turbines at the Bella facility “even during so-called ‘normal operations’ because such factors represent industry averages and do not account for variability outside the rest conditions used to establish the factors” *Id.* (citing AP-42, *Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Introduction at 2). The Petitioner states that the Final Permit presumes that HAP emissions, with the exception of formaldehyde, will be negligible, and that this conclusion was reached by inappropriately applying AP-42, 3.1 Stationary Internal Combustion Engines, Table 3.1-3 to anticipated heat input rates. *Id.* at 9 (citing Appendix C of the Permit Application).

The Petitioner explains that this use of AP-42 “may underestimate actual emissions by as much as an order of magnitude when a source is operated under conditions consistent with those used to derive the emission factors” and is further problematic because the facility “plans to operate its combustion turbines at loads lower than those used to establish the applicable emission factors during normal

operation.” *Id.* The Petitioner further states that the above referenced AP-42 emission factors are derived from units operating at loads of 80 percent or higher, but that the facility “indicates that it will in fact operate its combustion turbines at loads lower than 80% during normal operations.” *Id.* at 10 (citing Appendix E of the Permit Application). The Petitioner claims that “[n]either the [Permit] Application nor any other document in the record for this project provides any evidence indicating that the AP-42 emission factors used to calculate potential HAP emissions . . . are appropriate for these operating scenarios.” *Id.* The Petitioner expresses concern that “[b]ecause operation within conditions presumed by AP-42 emission factors may vary by an order of magnitude, normal operation outside of such conditions may create even more dramatic inaccuracies.” *Id.* The Petitioner provides an example, stating that formaldehyde emissions “exceeding the emission rate of .00071lb/MMBtu AP-42 emission factor by far less than an order of magnitude could result in emissions exceeding the 10 ton per year single HAP major source threshold, triggering CAA Section 112 major source requirements.” *Id.*

EPA Response: For the following reasons, the EPA grants the Petitioner’s request for an objection on this subclaim and objects to the issuance of the Permit.

The EPA has previously explained that, although AP-42 emission factors may not be the preferred means of demonstrating compliance with permit limits in many situations, determining whether a particular emission factor is sufficient to assure compliance with a particular emission limit is necessarily a fact-specific inquiry. *E.g., In the Matter of Suncor Energy (U.S.A.), Inc., Commerce City Refinery, Plant 2 (East), Order on Petition Nos. VIII-2022-13 & VIII-2022-14 at 24–27 (July 31, 2023)* (citing and discussing various other orders). Thus, to demonstrate a basis for the EPA’s objection to a title V permit, a petitioner must provide some fact-specific analysis that demonstrates that specific emission factors are insufficient to assure compliance with specific applicable requirements or permit terms. *See In the Matter of Salt River Project Agricultural Improvement and Power District, Agua Fria Generating Station, Order on Petition No. IX-2023-8 at 17 (January 3, 2024).* Such is the case here. The EPA finds that the Petitioner’s arguments do demonstrate a basis for the EPA’s objection to the Final Permit on this issue.

The EPA has previously explained that to effectively limit individual HAP and total HAP potential to emit (PTE) below major source thresholds, the individual and total HAP emission limits in the final permit terms must apply at all times to all actual emissions, and all actual individual and total HAP emissions must be considered in determining compliance with the respective limits. *See In the Matter of Hu Honua Bioenergy, Order on Petition No. IX-2011-1 at 17–19 (Feb. 7, 2014).*

Final Permit Condition 5.C.6 establishes an individual HAP limit of 9 tons per year (TPY) and a combined HAP limit of 22.5 TPY, both of which include emissions during normal operations and startup/shutdown events. Final Permit at 5. Although the Permit Application identifies 10 different HAPs in its summary of source-wide HAPs emissions at the facility, it identifies formaldehyde as the largest source of emissions of a single HAP at the facility, with a maximum PTE of 6.79 TPY.¹¹ The Petitioner notes that there are no permit terms that require stack testing to determine compliance with applicable emission limits for HAPs. Petition at 8. Rather, the Final Permit includes Permit Condition 6.F.6, which states:

¹¹ Total PTE for all HAPs is identified in the Permit Application as 9.92 TPY. The next largest source of a single HAP is Toluene, with a maximum PTE of 1.24 TPY. The maximum individual PTE values for the remaining eight HAPs are identified as < 1 TPY. *See* Permit Application at 14.

By the 10th day of each month, Permittee shall calculate and record the quantity of individual and total HAPs from the CTs, separately for each unit, for the previous calendar month. Calculations shall be performed using fuel records and emission factors from AP-42, Section 3.1, and Table 3.1-3.

Final Permit at 20.

Table 3.1-3, “Emissions Factors for Hazardous Air Pollutants from Natural Gas-Fired Stationary Gas Turbines,” identifies an emission factor of 7.1 E-04 lb/MMbtu for formaldehyde.¹² As noted in the Final Permit, this emission factor is then applied to anticipated heat input rates to calculate formaldehyde emissions. Petition at 9, citing Appendix C of the Permit Application. Importantly, Footnote b for the referenced AP-42 Table 3.1-3 indicates that these emission factors are derived from units operating at “high loads” (which are loads of 80 percent or higher).

The Petitioner’s seemingly chief concern with the use of AP-42—that it does not account for variability outside of the test conditions used to establish the factors—is justifiable. Here, the Petitioner raises concern specifically with the fact that the emission factor identified in the Final Permit for calculating formaldehyde emissions does not account for variability in operations, including for periods of combustion turbine startup and shutdown, and periods when the combustion turbines may be operating at loads below 80%.

As it pertains to the question of operational load of the combustion turbines at the facility, PCAQCD explains:

Although the Draft Permit does not exclude turbine operation at lower loads, significant operation at lower loads would not be expected because turbine efficiency is better when the operating loads are higher. Because the proposed source will have 10 turbines, overall plant load would be most effectively managed by adjusting the number of turbines operating (and operating such turbines at higher loads) as opposed to running the turbines at reduced load.

RTC at 4–5.

The EPA agrees with the Petitioner that PCAQCD’s explanation and use of the AP-42 formaldehyde emissions factor is not supported by the permit record. Despite assurance from PCAQCD that “significant operation at lower loads would not be expected,” the Permit Application identifies seven cases where combustion turbines may be operating at loads less than 80%.¹³ The AP-42 formaldehyde emission factor utilized in the Final Permit is derived from units operating at high load and may not be representative of such lower-load operating scenarios at the facility. This, in turn, may lead to an underestimation in calculated formaldehyde emissions and a failure to assure compliance with the 9 TPY emission limit on a single HAP. As such, the EPA concludes that the permit record is inadequate to

¹² AP-42, *Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Chapter 3: Stationary Internal Combustion Sources.

¹³ See Appendix E of the Permit Application at 57–60.

determine whether the permit terms are sufficient to assure compliance with the HAP limit and therefore grants this part of the Petition. 42 U.S.C. § 7661c(c); see 40 C.F.R. §§ 70.6(c)(1), 70.8(c)(3)(ii).

As it pertains to the question of emission factors during startup and shutdown events, the Petitioner correctly notes that the Final Permit does not establish distinct emission factors for calculating HAP emissions during normal operations and startup and shutdown events, while it *does* establish a separate emission factors for calculating particulate matter (PM), particulate matter with a diameter of 10 microns or less (PM₁₀), and particulate matter with a diameter of 2.5 microns or less (PM_{2.5}) emissions during normal operations and startup and shutdown events.¹⁴ The Petitioner asserts that this is problematic because HAP emissions may increase during periods of startup and shutdown due to incomplete combustion. Petition at 8. This issue brings into question the validity of the emission factor used to calculate HAP emissions during startup and shutdown events. PCAQCD does not explain why a distinct emission factor was not established in the Final Permit for startup and shutdown events to calculate HAP emissions. As such, the EPA concludes that the permit record is inadequate to determine why a distinct emission factor was not established for startup and shutdown events to calculate HAP emissions.

As it pertains to the question of the number of turbine startup and shutdown events, the EPA disagrees with the Petitioner that additional limits on the number of combustion turbine startup and shutdown events are necessary. As explained by PCAQCD in its RTC:

The draft permit already limited emissions of regulated air pollutants, and the draft permit also required that compliance with such limits include emissions occurring during [startup and shutdown] events (See Permit Condition 5.C). A separate enforceable permit limitation restricting the number of turbine [startups and shutdowns] was therefore unnecessary. As a practical matter, the number of turbine [startup and shutdown] events was already restricted by compliance with the other enforceable permit limits. Nevertheless, any number of turbine [startups and shutdowns] would be allowable provided that the enforceable emissions limits expressed in Permit Condition 5.C can be achieved.

RTC at 5.

While the Final Permit does not identify a separate, enforceable limit on the number of turbine startup and shutdown events, the EPA agrees with PCAQCD's explanation that the number of turbine startup and shutdown events is restricted by compliance with "other enforceable permit limits." *Id.* The Petitioner argues that this response is "unclear,"¹⁵ but the EPA, in reading the above response in its entirety, disagrees and concludes that PCAQCD was referencing the emission limits established in Final Permit Condition 5.C when it cited "other enforceable permit limits." In addition, the Final Permit requires reporting of the number and duration of turbine startup and shutdown events. See Final Permit Condition 6.I.3 at 22. Provided PCAQCD addresses the issues with the compliance demonstration regime, the Petitioners do not explain why it would *also* be necessary to separately

¹⁴ See Final Permit Conditions Nos. 6.F.3.d, e (establishing separate emission factors for calculating PM/PM₁₀/PM_{2.5} emissions during startup and shutdown events and normal operations).

¹⁵ Petition at 19.

limit the number or duration of startup and shutdown events.

Direction to PCAQCD: PCAQCD must ensure that the Final Permit assures compliance with HAP emissions limits as prescribed in the Final Permit. 42 U.S.C. § 7661c(c). To the extent that PCAQCD finds the AP-42 emission factor for formaldehyde consistent with all normal operating scenarios, it must provide justification in the record for its reasoning. Specifically, in this case, PCAQCD would need to explain how the AP-42 emission factor for formaldehyde accounts for scenarios when the turbines are operating at reduced loads below 80%. Additionally, PCAQCD would need to explain how the AP-42 emission factor for formaldehyde accounts for scenarios during periods of startup and shutdown. Alternatively, the EPA suggests that PCAQCD consider one or more of the following actions: (1) amending the Final Permit to reflect a separate emission factor representative of reduced-load scenarios and/or performing stack testing at different turbine operating conditions to establish separate emission factors; (2) amending the Final Permit to require operations at high load scenarios only during normal operations; and/or (3) establishing a separate emission factor for startup and shutdown events.

B. Subclaim 1b: The Petitioner Claims that “The Final Permit’s PM/PM₁₀/PM_{2.5} and VOC Emissions Limits Are Not Practically Enforceable.”

Petition Claim: The Petitioner claims that the Permit’s compliance assurance for the plantwide limits on PM/PM₁₀/PM_{2.5} and volatile organic compound (VOC) emissions is deficient. Petition at 11 (citing Final Permit Conditions Nos. 5.C.1 and 5.C.3). The Petitioner states that while the Final Permit’s emission factors for startup and shutdown events presume that each startup will last 30 minutes and that each shutdown will last 9 minutes, “there are no enforceable permit requirements mandating compliance with these assumptions.” *Id.* The Petitioner, in turn, explains that “if it takes longer than anticipated for turbines to startup or shutdown, higher emission rates than presumed by the permit will occur but will not be accounted for as Seguro determines compliance with permit limits.” *Id.*

Additionally, the Petitioner states that the emission factors presume that turbine pollution controls—Selective Catalytic Reduction (SCR) and oxidation catalysts—will be partially effective at reducing emissions during startups and shutdowns, yet the Final Permit “does not require use of pollution controls during startup or shutdown or mandate performance consistent with the Application’s representations to rely on startup/shutdown emission factors to determine compliance with emission limits.” *Id.* at 11–12 (citing Permit Application at 11). Furthermore, the Petitioner claims that the record is not clear in providing the “actual technical basis for presumed control performance during turbine startups and shutdowns,” and, taken together, the Final Permit record does not support PCAQCD’s conclusion that “the emission rates presumed by the Final Permit accurately reflect actual emissions during startups and shutdowns at the Bella Energy Facility.” *Id.* at 12 (citing *In the Matter of United States Steel, Granite City Works*, Order on Petition No. V02009-03 at 14 (Jan. 31, 2011)).

Finally, the Petitioner claims “the use of a stack test emission factor to determine lb/MMBtu emissions from the Project turbines across all ‘normal’ operating scenarios contemplated by the Application and authorized by the Permit is unreasonable.” *Id.* The Petitioner explains that stack testing provides a “snapshot of turbine performance during a short period of time under controlled conditions, but continuous operation may vary substantially based on present conditions, fuel quality, and operating

load.” *Id.* at 13. The Petitioner, again, cites to Appendix E of the Permit Application, in which there are several instances where turbines may operate at reduced loads. *Id.* The Petitioner concludes that:

Seguro has not attempted to show that turbine pollution control performance under these “normal” reduced-load operating scenarios will be consistent with stack test performance. Accordingly, the record does not support the District’s determination that multiplying actual monitored heat input to the facility’s combustion turbines by stack test emission factors accurately reflects actual emissions from the turbines and assures compliance with the Final Permit’s PM/PM₁₀/PM_{2.5} and VOC emission limits.

Id.

EPA’s Response: For the following reasons, the EPA grants in part and denies in part this Subclaim 1b and objects to the issuance of the Permit. The EPA begins with its reasoning for denying in part the subclaim.

In the first portion of this subclaim, the Petitioner describes its concerns with compliance assurance for PM and VOC emissions. Petition at 11. The Petitioner references Final Permit Conditions 6.F.3 and 6.F.4 as the protocol used by the facility to calculate PM/PM₁₀/PM_{2.5} and VOC emissions. See Final Permit at 18–19. Prior to stack testing, emissions during non-startup and shutdown operations are calculated by multiplying the heat input by the respective emission factors, which in this case are .0082 lb/MMBtu for PM/PM₁₀/PM_{2.5} and .0155 lb/MMBtu for VOC. Emissions from startup and shutdown activities are calculated by multiplying the number of startup and shutdown events by the approved emission rates of 5.1 lbs/event for PM/PM₁₀/PM_{2.5} and 2.7 lbs/event for VOC. *Id.*

As noted by the Petitioner and in the Permit Application, the Final Permit’s emission factors are based on a startup duration of 30 minutes and a shutdown duration of 9 minutes, duration values provided by the manufacturer itself, GE Vernova.¹⁶ The Petitioner opines that a “longer than anticipated” startup or shutdown time for the turbines will lead to higher emission rates than those assumed by the Permit, and that these higher emission rates will not be accounted for in determining compliance with permit limits. Petition at 11. In addition to challenging the duration of startup and shutdown events, the Petitioner questions whether the per-event emission rates are derived from information in the record and whether the use of SCR and oxidation catalysts pollution controls should be mandated in the Permit. *Id.* at 11–12.

However, the Petitioner does not provide the EPA with any analysis or supporting evidence to demonstrate that the startup and shutdown operations (30-minute startup and 9-minute shutdown) for these combustion turbines in the Permit Application or the Final Permit are flawed. The Petitioner provides no information to indicate that startups, for example, could be, or would typically be, longer than the 30-minute value provided by the manufacturer for this turbine. Nor does the Petitioner sufficiently explain the need to question why the per-event emission rates do not reflect actual emissions during turbine startup and shutdown activities at the facility. Additionally, the Petitioner

¹⁶ These assumptions are noted in the Permit Application, in addition to estimated duration, heat input and emissions for startup and shutdown operations provided by GE Vernova. See Section 3.3.2, Table 3-3 of the Permit Application at 11–12.

does not provide any analysis as to why the use of, and performance of, pollution controls on the turbines is flawed.

As explained by PCAQCD in its RTC, Final Permit Condition 5.C requires compliance with emissions limits, including startup and shutdown events. RTC at 5. These events are included in the monthly calculations for PM/PM₁₀/PM_{2.5} and VOC emissions. As it pertains to the question of whether the per-event emissions rates reflect actual emissions at the facility, the Permit Application reflects a 5.1 lbs/event emission rate and 2.7 lbs/event emission rate for PM/PM₁₀/PM_{2.5} and VOC, respectively, which are values provided by the manufacturer itself, GE Vernova.¹⁷ The manufacturer also provides in the Permit Application that the turbines are installed with SCR and oxidation catalyst emission controls, and that “NO_x, CO, VOC, and particulate matter emission rates during startup and shutdown, in terms of pounds per event, have been provided by GE Vernova assuming that SCR and OxCat are operational.”¹⁸ The Petitioner does not provide any analysis as to why these per-event emissions rates may be flawed. The Petitioner has not demonstrated how, even if the startup or shutdown durations were longer or pollution controls were not operational, such that it resulted in higher emissions per event, any such differences would be large enough to impact compliance with the 63 TPY emissions limit for PM/PM₁₀/PM_{2.5} and 225 TPY emissions limit for VOCs. Furthermore, the Final Permit prescribes that “the Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, maintenance/testing operations, or malfunction in the operation of the permitted facility or any air pollution control equipment.” Final Permit at 22. If the startup and/or shutdown duration turns out to be longer than expected, the recordkeeping requirements outlined in Final Permit Condition 6.1.3 may provide a basis for reevaluating the current permit terms or may provide evidence for potential future enforcement action.

The Petitioner does not demonstrate a basis for why the startup and shutdown operations and calculations as identified in the Final Permit are deficient. 40 C.F.R. 70.12(a)(2)(iii). As such, the EPA denies this part of the subclaim.

The Petitioner’s final point in Subclaim 1b is not unlike the point raised in Subclaim 1a. The Petitioner claims that an emission factor derived from a single stack test cannot necessarily be relied upon to represent emissions during operating conditions that differed from those during the stack test (specifically, lower load operations). Petition at 12. Additionally, the Petitioner asserts that the record is unclear as to whether the turbine pollution control performance during these reduced-load operating scenarios will be consistent with stack test performance. *Id.*

As noted in the EPA’s response to Subclaim 1a, PCAQCD explained in the RTC that “significant operation at lower loads would not be expected.” RTC at 4. However, given that the Permit Application and TSD indicate several cases where the turbines may operate at reduced loads,¹⁹ it is not unreasonable to question whether the stack test emission factor accurately captures the turbines’ performance during these reduced-load operations. The EPA agrees that that the record is unclear regarding whether the use of emission factors from a single stack test conducted at high loads will assure compliance with the PM/PM₁₀/PM_{2.5} and VOC limits when the turbines are operating at reduced

¹⁷ See Section 3.3.2, Table 3-3 of the Permit Application at 11–12.

¹⁸ Permit Application at 1 and 11.

¹⁹ See Appendix E of the Permit Application; See TSD at 6.

load. 42 U.S.C. § 7661c(c); *see* 40 C.F.R. §§ 70.6(c)(1), 70.8(c)(3)(ii). Therefore, the EPA grants this part of the subclaim.

Direction to PCAQCD: PCAQCD must ensure that the Final Permit assures compliance with the PM/PM₁₀/PM_{2.5} and VOC emissions limits as prescribed in the Final Permit. 42 U.S.C. § 7661c(c). PCAQCD should justify and/or provide more information explaining how the stack test-derived emission factor is representative of reduced-load operating scenarios. PCAQCD may consider amending the Final Permit to include a separate emission factor representative of a lower load. Alternatively, to the extent that PCAQCD finds the stack test-derived emission factor consistent with all normal operating scenarios, it may provide justification in the record for its reasoning.

C. Claim 2: The Petitioner Claims That “The District Made Significant Changes to the Permit Without Providing an Opportunity for Public Participation.”

Petition Claim: The Petitioner claims that PCAQCD made significant changes to the Permit without providing an opportunity for public participation. Petition at 13. The Petitioner states that “the District increased emission factors Seguro is required to use to calculate emissions from its combustion turbines during normal operations prior to stack testing to demonstrate compliance with Condition No. 5.C.1 and 5.C.3 emission limits for PM/PM₁₀/PM_{2.5} and VOC.” *Id.* (citing RTC at 6–7). The Petition explains that the Draft Permit had included an emission factor of .0056 lbs/MMBtu for PM/PM₁₀/PM_{2.5} and an emission factor of .0172 lbs/MMBtu for VOC,²⁰ whereas the Final Permit includes an emission factor of .0082 for PM/PM₁₀/PM_{2.5}, which “appears to be consistent with the manufacturer’s estimate that its turbines may emit up to 4 pounds of PM per hour.” *Id.*

The Petitioner acknowledges that this adjustment to the emission factors was likely intended to address the Petitioner’s comments raised during the public comment period but claims that the changes were made without public notice and opportunity for comment, raising “separate public participation problems.” *Id.* at 14 (citing PCAQCD Code 3-1-107.D.5 and 3-2-195.A). The Petitioner states that the permit changes are “not trivial,” and provides two examples of how the increased emission factors may call into question (i) whether certain Final Permit limits are sufficient to ensure emissions remain below major NSR thresholds, and (ii) the facility’s demonstration that this facility will not cause a violation of NAAQS for PM_{2.5} and ozone. *See id.* at 14–15.

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

The EPA’s regulations specify when public notice is required for specific types of permit actions, including initial permits, renewal permits, and significant permit modifications. 40 C.F.R. § 70.7(h). These regulations apply in situations where a permitting authority must revise a previously finalized permit or permit record in response to an EPA order granting a petition as these revisions would constitute a separate permit action. However, the regulations do not explicitly explain what types of changes necessitate a new round of public notice when such changes are made to a permit *before it is*

²⁰ The Petitioner claims that the emission factor for VOC was increased in the Final Permit; however, the Final Permit reflects a *decrease* in the emission factor for VOC. The Draft Permit included an emission factor of .0172 lbs/MMBtu for VOC. The Final Permit includes an emission factor of .0155 lbs/MMBtu for VOC. *See* Permit Application at 27; Permit at 19.

*finalized (i.e., within the same permit action). See In the Matter of Plains Marketing et al., Order on Petition Nos. IV-2023-1 & IV-2023-3 at 16 n.15 (Sept. 18, 2023) (Plains Marketing Order).*²¹

Such is the case here. PCAQCD had not finalized the facility's title V permit before sending the Proposed Permit to the EPA for review after the public comment period for the Draft Permit. In determining whether a second public comment period is necessary in such cases, the EPA has applied the administrative law principle of "logical outgrowth," typically used in the context of rulemakings, to title V permitting. For example, in a related matter, the EPA stated:

The CAA and its implementing regulations at part 70 provide for public comment on "draft" permits and generally do not require permitting authorities to conduct a second round of comments when sending the revised "proposed" permit to EPA for review. It is a basic principle of administrative law that agencies are encouraged to learn from public comments and, where appropriate, make changes that are a "logical outgrowth" of the original proposal.

In the Matter of Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC, Order on Petition No. II-2000-07 at 7 (May 2, 2001) (citations omitted).

The logical outgrowth principle prevents a never-ending cycle of public notice each time a change is made in response to information received or issues raised during a comment period. Determining whether a final permit is a logical outgrowth of the draft permit requires considering whether any revisions to the permit were in character with the draft provisions and whether interested parties could reasonably have anticipated the final permit terms based on the draft permit.²²

The Petitioner here refers to changes PCAQCD made to the Draft Permit after the public comment period closed. However, as the Petitioner itself acknowledges, Petition at 14, the changes in the emission factors were made in response to the Petitioner's own public comments on the Draft Permit. Thus, the Petitioner could have reasonably expected that a change to the emission factor—in this case, an increase in the emission factor from .0056 lb/MMBtu to .0082 lb/MMBtu for PM/PM₁₀/PM_{2.5} in the Final Permit terms—was foreseeable given that the Petitioner expressed in their comments to PCAQCD that a change was needed. An increase to the emission factor is a reasonable and foreseeable change from a draft to a final permit, considering the public is placed on notice of the emission factor value in the draft permit and can evaluate its adequacy and effect upon said notice, as the Petitioner did here. It is reasonable that an agency like PCAQCD may make revisions to that number from draft to final permits to account for comments made or information that comes to light; this public input, indeed, is the purpose of notice and comment. This change did not alter the overall compliance demonstration methodology and did not involve any significant changes to the permit terms; it simply adjusted an

²¹ Additionally, the regulations cited by the Petitioner are not legally relevant, because they only apply to revisions to a permit that are already finalized.

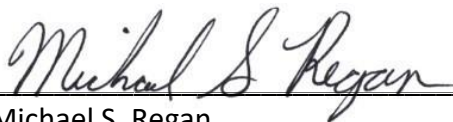
²² See *In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1*, Order on Petition at 11 (Apr. 20, 2007) ("The question under the 'logical outgrowth' test is whether the final action is in character with the original proposal and a logical outgrowth of the notice and comments"); *In re Springfield Water and Sewer Commission*, 18 E.A.D. 430, 451 (EAB 2021) ("In determining whether a changed provision in a final permit qualifies as a logical outgrowth of a draft permit, the Board has held that the 'essential inquiry' is whether interested parties reasonably could have anticipated the final permit condition from the draft permit.").

emission factor used in the compliance demonstration methodology that the public had notice of in the Draft Permit. If PCAQCD had to open a new comment period each time it made changes such as this, the cycle might never end. The EPA concludes that because the revisions to the Permit were reasonably foreseeable from the draft provisions and consistent with what the Petitioner advocated for in its comments, there was no need for an additional opportunity for public comment. Therefore, the EPA denies the Petitioner's request for an objection on 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 and object to the issuance of the Permit as described in this Order.

Dated: December 16, 2024



Michael S. Regan
Administrator