

BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF	)	PETITION Nos. VI-2017-5 AND
	)	VI-2017-13
YUHUANG CHEMICAL INC. METHANOL PLANT	)	
ST. JAMES PARISH, LOUISIANA	)	ORDER RESPONDING TO
	)	PETITIONS REQUESTING
PERMIT NO. 2560-00295-V1	)	OBJECTION TO THE ISSUANCE OF
	)	A TITLE V OPERATING PERMIT
ISSUED BY THE LOUISIANA DEPARTMENT OF	)	
ENVIRONMENTAL QUALITY	)	
	)	

**ORDER DENYING A PETITION FOR OBJECTION TO PERMIT**

**I. INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) received two petitions, dated March 30, 2017, and August 3, 2017 (collectively, the Petitions) from the Sierra Club and Louisiana Environmental Action Network (the Petitioners), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 U.S.C. § 7661d(b)(2). The Petitions request that the EPA Administrator object to the modification of operating permit no. 2560-00295-V1 (the Permit) issued by the Louisiana Department of Environmental Quality (LDEQ) to the Yuhuang Chemical Inc. Methanol Plant (Yuhuang or the facility) in St. James Parish, Louisiana. The Permit is a combined preconstruction and operating permit. The operating permit was issued pursuant to title V of the CAA, CAA §§ 501–507, 42 U.S.C. §§ 7661–7661f, and Louisiana Administrative Code (LAC) 33.III.507. *See also* 40 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 Petitions and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained further below, the EPA denies the Petitions requesting that the EPA Administrator object to the Permit.

**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. The state of Louisiana submitted a title V program governing the issuance of operating permits on November 15, 1993, and revised this program on November 10, 1994. 40 C.F.R. part 70, Appendix A. The EPA granted full approval to Louisiana's title V operating permits program in 1995. 60 Fed. Reg. 47296 (September 12,

1995); 40 C.F.R. part 70, Appendix A. This program, which became effective on October 12, 1995, is codified in LAC, Title 33, Part III, Chapter 5.

All major stationary sources of air pollution and certain other sources are required to apply for title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. CAA §§ 502(a), 504(a), 42 U.S.C. §§ 7661a(a), 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 the source's compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see* CAA § 504(c), 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, the EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 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), 42 U.S.C. § 7661d(a), and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to the EPA for review. Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the proposed permit if the EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. CAA § 505(b)(1), 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 petition the Administrator, within 60 days of the expiration of the EPA's 45-day review period, to object to the permit. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

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). CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).<sup>1</sup> Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA.<sup>2</sup>

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<sup>1</sup> *See also New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2d Cir. 2003) (*NYPIRG*).

<sup>2</sup> *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.

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,” to determine whether a petition demonstrates to the Administrator that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty to object where such a demonstration is made. *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)).<sup>3</sup> 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.<sup>4</sup> Certain aspects of the petitioner’s demonstration burden are discussed below; however, a more detailed discussion can be found in *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 has looked at a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether the petitioner has addressed the state or local permitting authority’s decision and reasoning. The EPA expects the petitioner to address the permitting authority’s final decision, and the permitting authority’s final reasoning (including the state’s response to comments, or RTC), where these documents were available during the timeframe for filing the petition. *See MacClarence*, 596 F.3d at 1132–33.<sup>5</sup> Another factor the EPA has examined is whether a petitioner has provided the relevant analyses and citations to support its claims. If a petitioner does not, the EPA is left to work out the basis for 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.”).<sup>6</sup> Relatedly, the EPA has pointed out in numerous orders that, in particular cases,

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<sup>3</sup> 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)).

<sup>4</sup> See also *Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

<sup>5</sup> See also, e.g., *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 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).

<sup>6</sup> 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

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).<sup>7</sup> 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).<sup>8</sup>

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) on a proposed permit generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. 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 of basis for the draft and proposed permits; the permitting authority's written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; relevant supporting materials made available to the public according to 40 C.F.R. § 70.7(h)(2); and all other 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). 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 as part of making a determination whether to grant or deny the petition.

### **III. BACKGROUND**

#### **A. The Yuhuang Facility**

Yuhuang Chemical Inc. has proposed to construct and operate a new methanol manufacturing facility in St. James Parish, Louisiana. Among other air pollutants, the facility will emit carbon monoxide (CO), volatile organic compounds (VOC), and nitrogen oxides (NOx) from various emission units, including a steam methane reformer (SMR), an auxiliary boiler, a flare, fugitive emissions, loading operations, and methanol storage tanks. The Yuhuang facility is subject to various New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP), and is permitted as a minor source for New Source Review (NSR) purposes.

#### **B. Permitting History**

LDEQ issued an initial title V permit, along with a preconstruction permit, to the Yuhuang facility on May 5, 2015. Based on applications from Yuhuang requesting to modify its initial

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required monitoring); *In the Matter of Portland Generating Station*, Order on Petition, at 7 (June 20, 2007) (*Portland Generating Station Order*).

<sup>7</sup> 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); *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).

<sup>8</sup> 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.

permit, on August 18, 2016, LDEQ published notice of a proposed permit modification. However, following a petition submitted by the Petitioners, the EPA objected to the facility's initial (2015) title V permit on August 31, 2016. *See In the Matter of Yuhuang Chemical Inc. Methanol Plant*, Order on Petition No. VI-2015-03 (August 31, 2016) (2016 Yuhuang Order). After the EPA's objection, LDEQ indicated that it would not finalize the August 2016 proposed permit modification. Instead, LDEQ issued a second proposed permit modification on December 15, 2016 (the December 2016 Permit), which was intended to address both Yuhuang's requested changes as well as the EPA's August 2016 objection. This second permit modification is the permit action implicated by the Petitions.

As noted above, LDEQ issued notice of the December 2016 Permit on December 15, 2016, subject to a public comment period that ended on January 30, 2017. The December 2016 Permit was transmitted to the EPA for review at the same time that it was released to the public for public comment. Accordingly, the EPA's public website initially indicated that the EPA's 45-day review of the title V permit would begin on December 15, 2016, and end on January 29, 2017, with a public petition period ending on March 30, 2017. The Petitioners submitted a petition on the December 2016 Permit on March 30, 2017 (the March 2017 Petition).

Subsequently, based on comments submitted during the public comment period, LDEQ made changes to the December 2016 Permit and submitted a revised version of the title V permit modification to the EPA on April 20, 2017 (the April 2017 Permit). Accompanying the April 2017 Permit was a document containing LDEQ's Public Comments Response Summary (RTC). The EPA updated its public website to indicate that the EPA's 45-day review of the April 2017 Permit began on April 20 and would end on June 4, 2017, with a public petition period beginning on June 5 and ending on August 3, 2017. The Petitioners submitted a petition on the April 2017 Permit on August 3, 2017 (the August 2017 Petition). LDEQ finalized the title V permit modification (Final Permit) on June 30, 2017.<sup>9</sup>

### C. Timeliness of Petitions

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). As noted above, the EPA's 45-day review of the April 2017 Permit ended on June 4, 2017. Thus, a petition seeking objection to the April 2017 Permit was due by August 3, 2017. The August 2017 Petition was submitted and received on August 3, 2017, and, therefore, the EPA finds that the August 2017 Petition was timely submitted.

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<sup>9</sup> Subsequent to the finalization of the permit modification at issue, Yuhuang submitted a request (finalized by LDEQ on December 14, 2017) to split the facility's title V permit into two separate permits—one delineating requirements applicable to the manufacturing portion of the facility and the other delineating requirements applicable to the product storage and truck and railcar loading portions of the facility. The EPA is not aware of any way in which this change in format resulted in any substantive changes to the permit terms. Therefore, for purposes of clarity, this Order responds to the claims in the Petition as they were raised with respect to the conditions contained in the April 2017 Permit and/or Final Permit, notwithstanding the fact that some of the permit terms are now numbered differently and contained in different permit documents.

Regarding the March 2017 Petition, the EPA acknowledges that it was initially not clear whether the December 2016 Permit might also have served as the “proposed permit” as that term is referenced in the Act and defined in the EPA’s regulations,<sup>10</sup> and, as such, whether it was appropriate to submit a petition on the December 2016 Permit. As noted above, the EPA identified the December 2016 Permit on its public website as a proposed permit subject to an EPA review period that concluded on January 29, 2017, and a petition period that concluded on March 30, 2017.<sup>11</sup> However, the transmission of the April 2017 Permit to the EPA suggested that the December 2016 Permit, initially submitted to the EPA, may no longer be the “proposed permit” contemplated by CAA § 505(a)(1)—i.e., the permit that LDEQ “proposed to . . . issue[]”—subject to EPA’s objection authority and the opportunity for a public petition. The December 2016 Permit may better be thought of as simply an early draft of the modification to Yuhuang’s permit, subject to additional consideration and revision before it was formally proposed to the EPA.

The EPA need not decide the extent to which the December 2016 Permit should be treated as the “proposed permit” for purposes of CAA § 505(b). The April 2017 Permit effectively superseded the December 2016 Permit in its entirety, rendering the March 2017 Petition moot.<sup>12</sup> Each of the claims in the March 2017 Petition referred to permit terms reflected in the December 2016 Permit, many of which were updated in the April 2017 Permit. Additionally, the claims in the March 2017 Petition are essentially the same as those re-raised in the August 2017 Petition (although the August 2017 Petition claims include consideration of more of the permit record, including updates to the Permit as well as LDEQ’s RTC). Therefore, the EPA’s responses to the issues raised in the August 2017 Petition would also resolve the similar (but less up-to-date) claims in the March 2017 Petition, even if they were not moot. That is to say, any additional consideration of the specific claims raised in the March 2017 Petition with respect to the now-superseded December 2016 Permit would be redundant and, therefore, unnecessary.<sup>13</sup>

#### **IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS**

The August 2017 Petition requests that the EPA Administrator object to the proposed title V permit modification, permit no. 2560-00295-V1. August 2017 Petition at 1, 18. The Petitioners claim that this permit modification was issued in response to an EPA objection more than 90 days after the objection was issued, but that the permit modification “fails to resolve the bulk of EPA’s objection.” *Id.* at 1, 2. Therefore, in addition to requesting that the EPA object to the

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<sup>10</sup> See 42 U.S.C. § 7661d(a)(1)(B) (requiring that permitting authorities transmit to the EPA “each permit proposed to be issued”); § 7661d(a)(2), (b)(1) (characterizing the permit submitted to and reviewed by the EPA as the “proposed permit”); § 7661d(b)(2) (referring to the permit subject to the petition opportunity as the “permit” discussed in section (b)(1); i.e., the proposed permit); 40 C.F.R. § 70.8(c), (d) (mirroring terms used in 42 U.S.C. § 7661d(b)(1) and (2) to describe the EPA review and petition opportunities); § 70.2 (defining “proposed permit” as “the version of a permit that the permitting authority proposes to issue and forwards to the Administrator for review in compliance with § 70.8”); *compare id.* (defining “draft permit” as “the version of a permit for which the permitting authority offers public participation under § 70.7(h) or affected State review under § 70.8 of this part”).

<sup>11</sup> Therefore, to the extent the December 2016 Permit should be treated as a “proposed permit” for the purposes of CAA § 505(b), the EPA finds that the March 2017 Petition was timely filed.

<sup>12</sup> See, e.g., *In the Matter of Wheelabrator Frackville Energy, Inc.*, Order On Petition No. III-2016-17 at 4–9 (October 6, 2017) (“A title V petition may be rendered moot when the version of the permit on which it is based has been withdrawn, superseded, or otherwise no longer operative.” (citations omitted)).

<sup>13</sup> See *id.* at 8.

permit modification, the Petitioners claim that the CAA requires that the Administrator take final action to modify and reissue the Permit, instead of remanding the objectionable Permit back to LDEQ. *Id.* at 1 (citing 42 U.S.C. § 7661d(c)).

The EPA, in its *2016 Yuhuang Order*, objected to the initial Yuhuang permit on the basis “that the Final Permit and permit record are inadequate to ensure that the unit-specific emission limits for CO, VOC, and NOx—which appear to be intended to restrict the facility’s [potential to emit, or PTE] below the applicable 100 TPY threshold for PSD applicability purposes—are enforceable as a practical matter.” *2016 Yuhuang Order* at 16. In the August 2017 Petition, the Petitioners now allege that, despite revisions by LDEQ intended to address the EPA’s objection, a number of the emission limits in the Permit are still not enforceable as a practical matter, and, therefore, cannot be relied upon to restrict the facility’s PTE below major source thresholds for PSD. *See* August 2017 Petition at 6–15. As described further below, the Petitioners challenge the monitoring associated with these permit limits and make other allegations concerning the facility’s PTE. Ultimately, the Petitioners contend that the Yuhuang facility is “a major source of criteria pollutants subject to all PSD requirements under the [CAA] and the Louisiana SIP.” *Id.* at 15.<sup>14</sup>

As the EPA has explained in two recent Petition Orders (which were issued after the EPA’s *2016 Yuhuang Order*), the propriety of a state permitting authority’s decisions undertaken in the course of issuing or modifying a duly issued preconstruction permit—including decisions concerning whether a facility is subject to major source PSD requirements—is not an issue that is appropriate to address through title V, including in a petition to object to a title V permit. *See In the Matter of PacifiCorp Energy Hunter Power Plant, Order on Petition No. VIII-2016-4* at 8–21 (October 16, 2017) (*PacifiCorp-Hunter Order*); *In the Matter of Big River Steel, LLC, Order On Petition No. VI-2013-10* at 8–20 (October 31, 2017) (*Big River Steel Order*). Duly made preconstruction permitting decisions reached by a permitting authority in issuing a preconstruction permit define the NSR-related “applicable requirements” for that construction or modification, and the terms and conditions of those permits should be incorporated into a source’s title V permit without further review. *PacifiCorp-Hunter Order* at 8–11; *Big River Steel Order* at 9–11.<sup>15</sup> This holds true regardless of whether a permitting authority processes the

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<sup>14</sup> For support, the Petitioners present two claims purporting to detail that the CO emissions from the SMR, as well as CO emissions from the flare, could exceed 100 tons per year (tpy). *See id.* at 15–17. With respect to the flare, the Petitioners specifically assert that enforceable restrictions on the number or duration of startups are necessary to limit the facility’s PTE. *Id.* at 17. These claims are discussed in the following paragraph, as well as in sections IV.A and IV.G of this Order addressing CO emissions from the SMR, and CO emissions from the flare, respectively. *See infra* notes 22, 49.

<sup>15</sup> As the EPA has explained, “[A] decision by the EPA not to object to a title V permit that includes the terms and conditions of a title I permit does not indicate that the EPA has concluded that those terms and conditions comply with the applicable SIP or the CAA. However, until the terms and conditions of the title I permit are revised, reopened, suspended, revoked, reissued, terminated, augmented, or invalidated through some other mechanism, such as a state court appeal, the ‘applicable requirement’ remains the terms and conditions of the issued preconstruction permit and they should be included in the source’s title V permit.” *Big River Steel Order* at 19; *see PacifiCorp-Hunter Order* at 19; *id.* at 20 (“That the EPA views the incorporation of the terms and conditions of these preconstruction permits into the title V operating permit as proper for purposes of title V does not indicate that the EPA agrees that the state reached the proper decision when setting terms and conditions in the preconstruction permits. . . . The EPA’s lack of objection to the inclusion of that requirement in the title V permit does not indicate

issuance or modification of a preconstruction permit separately from—or concurrently with—the issuance, modification, or renewal of a title V permit (including where both title I and title V requirements are contained within a single permit document). *See Big River Steel Order* at 11–12, 18. In this case, LDEQ’s determination that the Yuhuang facility should not be considered a major stationary source for PSD applicability purposes, and the resulting decision to authorize the Yuhuang facility through a minor NSR permit, should have been challenged through the appropriate title I avenues or enforcement authorities. *See PacifiCorp-Hunter Order* at 14–19; La. R.S. 30:2050.11 (administrative adjudicatory hearings); La. R.S. 30:2050.21 (judicial review, appeal); 42 U.S.C. §§ 7413, 7477 (enforcement authorities). The Petitioners may not use the title V petition process to raise concerns over those PSD applicability decisions. Accordingly, to the extent that the August 2017 Petition claims that the Yuhuang facility is incorrectly characterized as a minor source for PSD purposes (including claims related to the calculation of PTE), it is denied.<sup>16</sup>

However, the majority of the individual claims raised by the Petitioners challenge the enforceability of emission limits contained within the Permit, through specific allegations regarding the adequacy of monitoring requirements associated with these limits. Inquiries concerning whether a title V permit contains enforceable permit terms, supported by monitoring sufficient to assure compliance with an applicable requirement or permit term (such as an emission limit established in a minor NSR permit), are properly reviewed during title V permitting. The statutory obligations to ensure that each title V permit contains “enforceable emission limitations and standards” supported by “monitoring . . . requirements to assure compliance with the permit terms and conditions,” 42 U.S.C. § 7661c(a) and (c), apply independently from and in addition to the underlying regulations and permit actions that give rise to the emission limits and standards that are included in a title V permit.<sup>17</sup> Therefore, the EPA will address those portions of the August 2017 Petition that challenge the enforceability of emission limits and the sufficiency of monitoring conditions in the Permit.<sup>18</sup>

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that the EPA agrees that it is legal or complies with the Act; it merely indicates that a title V permit is not the appropriate venue to correct any such flaws in the preconstruction permit.”).

<sup>16</sup> Here, the Petitioners have not alleged that LDEQ failed to properly incorporate the terms and conditions of a preconstruction permits “issued pursuant to regulations approved or promulgated through rulemaking under title I.” 40 C.F.R. § 70.2 (definition of “applicable requirement”). The Petitioners have also not alleged that there has been construction or modification of the facility that has not been covered by a preconstruction permit. Therefore, the EPA will only consider whether the Petitioners have demonstrated that the title V permit is not in compliance with the requirements of Part 70.

<sup>17</sup> The EPA, in both the *PacifiCorp-Hunter* and *Big River Steel* Orders, expressly indicated that even where it is not appropriate to reevaluate NSR determinations in the title V context, title V permits must still include adequate monitoring, recordkeeping, and reporting to assure compliance with the applicable NSR requirements. *PacifiCorp-Hunter Order* at 17 (“In the case of a preconstruction permit, the EPA’s oversight role under title V is to ensure that the terms and conditions of the preconstruction permit are properly included as ‘applicable requirements,’ and that the permit contains monitoring, recordkeeping, and reporting sufficient to assure compliance with those permit terms and conditions.”); *id.* at 16, 18, 18 n.33, 19; *Big River Steel Order* at 17 n.30 (“The EPA’s review of the title V permit will still consider whether the permit has adequate monitoring, recordkeeping, and reporting to assure compliance with all applicable requirements, including the preconstruction permit requirements.”); *id.* at 17, 19 n.32, 20.

<sup>18</sup> The claims in the August 2017 Petition are not individually enumerated. Therefore, the headings contained in this Order do not correspond directly to a single claim raised in the August 2017 Petition. However, the EPA’s analysis of the issues in the August 2017 Petition generally follows the order presented in the August 2017 Petition.

## A. Claims Concerning SMR CO Emissions and Auxiliary Boiler CO Emissions.

**Petitioners' Claims:** The Petitioners raise a number of allegations challenging permit terms related to the monitoring of CO emissions from the auxiliary boiler and SMR. First, the Petitioners address annual stack test requirements contained in Specific Requirement (SR) 75 (SMR) and SR 117 (boiler),<sup>19</sup> claiming that “LDEQ’s RTC 21 does not demonstrate that annual testing is sufficient to accurately estimate annual emissions.” August 2017 Petition at 6; *see id.* at 9, 16.

The Petitioners acknowledge that SR 116 explains that performance tests will be used to calculate operating rate-specific emission factors for the auxiliary boiler. *Id.* at 7. However, the Petitioners claim that LDEQ does not specify the method for developing the operating rate-specific emission factors. *Id.* at 6, 9, 16. The Petitioners also claim that the Permit does not contain a requirement that the emission factors be reviewed and updated after each stack test, or that they must be derived from the most recent performance test, contrary to representations by LDEQ in its RTC. *Id.* at 7.

The Petitioners further claim that the Permit fails to require that monthly CO emissions be summed to calculate annual emissions from the boiler and SMR. *Id.* at 7, 10. The Petitioners acknowledge that the “Compliance Demonstration Methodologies” table in the Permit contains this requirement, but claim that this requirement must be included in the Specific Requirements section of the Permit. *Id.* (citing Permit, Compliance Demonstration Methodologies table, note 2).

The Petitioners allege that the Permit must be modified to require a continuous emissions monitoring system (CEMS) to continuously measure CO. *Id.* at 6, 9, 16. The Petitioners claim that a CO CEMS “is critically important because CO emissions are close to the major source threshold and the modification lowered the boiler CO concentration from 30 ppm to 10 ppm, which is very aggressive.” *Id.* at 6–7, 16.

Further, the Petitioners challenge SR 113, which requires an oxygen trim system to be equipped and used on the auxiliary boiler. The Petitioners claim that SR 113 does not specify that the oxygen trim system shall be continuous, and that neither LDEQ’s RTC nor the Compliance Demonstration Methodologies table in the Permit explain how the system will be used to actually demonstrate or determine compliance. *Id.* at 7–8. The Petitioners also briefly allege that “a 5-yr tune-up schedule does not ensure proper ongoing operations” of the boiler. *Id.* at 6, 9, 16.

**EPA’s Response:** For the following reasons, the EPA denies the Petitioners’ request for an objection on the claims related to the auxiliary boiler and SMR CO emissions.<sup>20</sup>

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<sup>19</sup> Where a permit condition is identically numbered and identical in substance in both the April 2017 and Final Permits, this Order provides a citation to the Permit generally, along with the SR number. Where a provision is differently numbered or different in substance between the April 2017 and Final Permits, this Order provides separate citations to each permit term.

<sup>20</sup> The Petitioners also raised claims alleging that the Yuhuang facility has the potential to emit more than 100 tpy of CO, including arguments regarding predicted CO emissions from the SMR based on average and maximum operating rates. *See* August 2017 Petition at 15–16. However, as discussed above, *supra* note 16 and accompanying

The SMR is subject to an emission limit of 38.15 tons/year CO; the auxiliary boiler is subject to an emission limit of 16.87 tons/year CO.<sup>21</sup> The Petitioners challenge the monitoring provisions associated with these CO emission limits.<sup>22</sup>

Among other provisions, the permit terms most relevant to these emission limits appear to be SRs 74 and 75 (governing the SMR) and SRs 116 and 117 (governing the auxiliary boiler). SR 74 states:

Compliance demonstration method: The permittee shall conduct performance tests at four evenly-spaced points over the anticipated operating range of the SMR, ranging from the lowest operating rate associated with routine operations to 100 percent of design capacity (or the highest operating rate achievable during the performance test), and develop operating rate-specific emission factors (in terms of lb/MM Btu) for each range. CO and VOC emissions shall be calculated monthly based on the actual operating rates of the SMR during the calendar month and the emission factors corresponding to each operating range. Alternatively, the permittee may base emissions on the highest emission factor derived from the performance test results.”

SR 75 mandates specific test methods, reproduces some of the language from SR 74, and requires “For CO and VOC, repeat the performance tests annually (plus or minus 1 calendar month).” The auxiliary boiler is governed by SRs 116 and 117, which mirror SRs 74 and 75.

Other portions of the Permit and permit record provide further clarification of the monitoring and compliance demonstration methodology associated with the CO limits on the SMR and auxiliary boiler. *See April 2017 Permit at pdf p. 31, 32* (describing compliance demonstration methods for annual CO limits on the SMR and boiler); *id. at pdf p. 37 n.2* (“This table replicates the compliance demonstration methodology set forth in the “Specific Requirements” section of this permit for the listed emission units. Monthly emissions shall be summed, and the resultant annual (or 12-month rolling) total shall be compared to the applicable ton per year limit to verify compliance. Where performance test(s) are required, actual emissions shall be based on the

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text, the EPA is not responding to the Petitioners’ arguments concerning the calculation of the facility’s PTE for purposes of determining PSD applicability in this title V petition order. As noted above, this does not indicate that the EPA necessarily agrees with the conclusions reached by LDEQ regarding these preconstruction permitting decisions. *See supra* note 15.

<sup>21</sup> April 2017 Permit at pdf p. 44 (Emission Rates for Criteria Pollutants and CO<sub>2</sub>e).

<sup>22</sup> To the extent that, in the course of challenging the source’s PTE calculations for CO from the SMR, *see August 2017 Petition at 15–16*, the Petitioners also intended to question whether the short-term emission rates reflected in the table titled “Emission Rates For Criteria Pollutants and CO<sub>2</sub>e” (i.e., the 8.69 lb/hr average rate and 78.80 lb/hr maximum rate) are enforceable as a practical matter, these claims are denied. The Petitioners have provided no analysis expressly challenging the enforceability of these short-term limits embodied in the permit. As such, the EPA is not making a judgment regarding the enforceability of these short-term limits in this response, nor should this response be interpreted explicitly or implicitly as an approval of the enforceability of these limits. Similarly, because the EPA is evaluating the Petitioners’ other claims regarding the enforceability of the longer-term emission limits in light of the Petitioners’ burden to demonstrate a flaw in a permit, the EPA’s response below should not be interpreted as a judgment regarding the enforceability of those limits either.

results of the most recent test(s)."); RTC at 30–33 (explaining the compliance demonstration methods for CO limits on the SMR and boiler). LDEQ summarized these requirements, stating: "The compliance assurance monitoring scheme required here – annual performance tests conducted over the entire operational ranges of the units followed by proper maintenance and continuous monitoring of relevant operating parameters – is adequate to assure compliance with permit limits." RTC at 31.

Turning to the Petitioners' claims, the Petitioners first challenge the annual stack test requirements in SR 75 and SR 117.<sup>23</sup> However, the Petitioners provide no justification in support of their contention that annual stack testing is insufficient. Instead, the August 2017 Petition includes a single sentence alleging that LDEQ did not demonstrate why annual stack testing is sufficient. In so doing, the Petitioners have attempted to shift the demonstration burden in the Petition to LDEQ, rather than demonstrating themselves why the annual stack testing is not sufficient. As discussed above, the CAA places the burden on the Petitioners to demonstrate to the EPA that a flaw in the Permit warrants an objection, supported by adequate citation and analysis.<sup>24</sup> The Petitioners' unsupported, one-sentence claim concerning the frequency of stack testing does not satisfy this burden.

The Petitioners' concerns regarding the stack test frequency are particularly unwarranted given the context in which these stack tests operate. Annual stack tests are not the sole means by which the facility demonstrates compliance. Rather, the Permit specifies that actual operating data will be used to calculate monthly emissions in between stack tests. Specifically, SRs 74, 75, 116, and 117 indicate that the annual stack tests will be used to develop operating rate-specific emission factors. These emission factors, in conjunction with monitored actual operating rates, will be used to calculate monthly CO emissions from the SMR and auxiliary boiler. Permit SRs 74, 116.

The Petitioners acknowledge that the annual stack tests would be used to calculate operating rate-specific emission factors, but claim that the Permit does not specify the method for developing these emission factors. This contention is incorrect: SRs 74, 75, 116, and 117 all clearly state that the performance tests will be conducted at four operating rates to develop rate-specific CO emission factors in terms of lb/MMBtu.<sup>25</sup> The Petitioners, who provide no support for their contention, have not demonstrated why it would be necessary for the Permit to include any more detail concerning the method for developing the relevant emission factors.

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<sup>23</sup> The Petitioner raised a similar claim with respect to annual stack testing for VOC from the SMR, discussed below. The EPA's response here applies to that claim as well.

<sup>24</sup> See *supra* notes 6, 7, and accompanying text.

<sup>25</sup> As noted above, these conditions specify the following: "The permittee shall conduct performance tests at four evenly-spaced points over the anticipated operating range of the [SMR and boiler], ranging from the lowest operating rate associated with routine operations to 100 percent of design capacity (or the highest operating rate achievable during the performance test), and develop operating rate-specific emission factors (in terms of lb/MM Btu) for each range." Permit SR 74, 75, 116, 117.

The Petitioners also allege that the Permit does not contain a requirement that the emission factors be updated after each stack test to reflect the most recent test results.<sup>26</sup> This is also incorrect. The Permit explicitly states: “Where performance test(s) are required, actual emissions shall be based on the results of the most recent test(s).” April 2017 Permit at pdf p. 37 n.2 (Compliance Demonstration Methodologies table). The Petitioners do not acknowledge this provision. Moreover, the Petitioners provide no reason to believe that the performance tests from which the emission factors are derived, which are required to be performed annually, *see SR 75, SR 117*, would not be used to update the emission factors used in the compliance demonstration.

The Petitioners also claim that the Permit does not require that monthly CO emissions be summed to calculate annual emissions from the auxiliary boiler and SMR.<sup>27</sup> However, as the Petitioners acknowledged, August 2017 Petition at 7, the Permit explicitly states that “Monthly emissions shall be summed, and the resultant annual (or 12-month rolling) total shall be compared to the applicable ton per year limit to verify compliance.” April 2017 Permit at pdf p. 37 n.2 (Compliance Demonstration Methodologies table). The Petitioners claim that this provision must be listed in the Specific Requirements section, rather than the Compliance Demonstration Methodologies table, because “[t]he table serves as a summary for compliance methods that are in the Specific Requirements.” August 2017 Petition at 7. However, the Petitioners have not demonstrated why this level of detail must necessarily be included in the Specific Requirements section. The Specific Requirements section clearly requires monthly emission calculations in order to assure compliance with CO emission limits from the SMR and Boiler. *See Permit SR 74 and SR 75.* As LDEQ stated, “the need to sum monthly CO emissions for comparison to the annual limit is self-evident.” RTC at 32. The additional clarification provided by the Compliance Demonstration Methodology table (quoted above), as well as LDEQ’s RTC, resolve any ambiguity as to how the monthly emissions data would be used when demonstrating compliance with the annual limits. *See RTC at 32.*

Overall, the Petitioners have not demonstrated that the monitoring established by the Permit is inadequate to assure compliance with the CO emission limits on the SMR and auxiliary boiler. As such, the Petitioners have not demonstrated that any additional monitoring is necessary.<sup>28</sup>

The Petitioners also challenge two permit requirements that apply to the auxiliary boiler: the requirement to conduct a tune-up every 5 years (SR 100) and the requirement to install and operate an oxygen trim system (SR 113). These permit terms are derived from and implement applicable requirements contained in the Subpart DDDDD NESHAP (also known as the major

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<sup>26</sup> It is unclear whether the Petitioners intended for the allegations discussed in this paragraph to encompass both the boiler and SMR, or only the boiler; the only provision specifically cited by the Petitioners (SR 116) relates to the boiler.

<sup>27</sup> This claim refers to both the boiler and SMR. *See August 2017 Petition at 10* (referencing SR 74 (SMR CO) and SR 116 (boiler CO)). The Petitioners also make the same allegations with respect to VOC emissions from the auxiliary boiler. *See id. at 9, 10* (referencing SR 115 (boiler VOC)). The EPA’s response here applies to that claim as well.

<sup>28</sup> It is unclear whether the Petitioners intended for the allegations regarding CEMS to encompass both the boiler and SMR, or only the boiler; this portion of the August 2017 Petition only directly references the boiler. *See August 2017 Petition at 6–7.* The EPA’s response applies equally to both the boiler and SMR.

source Boiler MACT). *See* 40 C.F.R. § 63.7540(a)(12) and 63.7575.<sup>29</sup> Contrary to the Petitioners' suggestions, these requirements are not "used to actually demonstrate or determine compliance" with the CO emission limit on the auxiliary boiler. August 2017 Petition at 8.<sup>30</sup> Rather, as the Permit states and as LDEQ explained in its RTC, these requirements serve to optimize combustion efficiency and minimize the products of incomplete combustion, such as CO. *See* April 2017 Permit at pdf p. 32 (Compliance Demonstration Methodologies table); RTC at 31, 33. In sum, these operation and maintenance requirements derived from the Subpart DDDDD NESHAP help assure that CO emissions are well-controlled, but LDEQ has not identified them as part of the methodology involved with quantifying CO emissions from the auxiliary boiler.

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on these claims.

## B. Claims Concerning SMR VOC Emissions

**Petitioners' Claims:** The Petitioners also briefly allege that annual testing of VOC from the SMR is not sufficient to assure compliance. August 2017 Petition at 9.

**EPA's Response:** The compliance demonstration requirements for VOC from the SMR are identical to the CO compliance demonstration methodology for the SMR, and both are contained in SRs 74 and 75 (as detailed above). The Petitioners again attempt to shift the burden to LDEQ to demonstrate that the monitoring is sufficient rather than meeting their burden in a petition to demonstrate that the monitoring is inadequate. The Petitioners have not demonstrated that the compliance demonstration methodology in the Permit—annual stack testing along with continuous monitoring of operating rates—is inadequate to assure compliance with relevant VOC emission limits on the SMR. Therefore, this brief, one-sentence claim is denied for the same reasons as discussed above concerning annual stack testing of CO from the SMR and auxiliary boiler.<sup>31</sup>

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<sup>29</sup> The Petitioners appear to challenge the sufficiency of these operation and maintenance standards established by the EPA through rulemaking. However, a title V petition is not the appropriate venue to challenge the substance of permit terms that simply reflect requirements contained in duly promulgated federal standards. *See PacifiCorp-Hunter Order* at 18 ("For instance, the EPA would not allow a permitting authority to revise the substantive requirements of [NSPS] established under section 111, or [NESHAP] established under section 112. These substantive requirements have already been established pursuant to a process that included public notice and comment and the opportunity for judicial review. It would, therefore, be inappropriate to reevaluate these standards in title V permitting."); *Big River Steel Order* at 19 (same); *cf. In the Matter of Piedmont Green Power*, Order on Petition No. IV-2015-2 at 28–29 (December 13, 2016) (explaining that a permit term reflecting the language of an EPA-approved SIP provision should be included in the title V permit as an "applicable requirement"). In any case, the Petitioners provide no explanation as to why they believe a tune-up every five years is inadequate for boilers equipped with an oxygen trim system. Regarding the Petitioners' argument that the Permit does not specify that the oxygen trim system be "continuous," the EPA notes that the Subpart DDDDD standard refers to an "oxygen trim system" and a "continuous oxygen trim system" interchangeably, so the EPA finds no fault with the lack of the term "continuous" in the Permit. *See* 40 C.F.R. § 63.7540(a)(12).

<sup>30</sup> The Petitioners raise similar claims with respect to VOC emissions from the auxiliary boiler, as discussed below. The EPA's response here applies to that claim as well.

<sup>31</sup> *See supra* notes 6–7, 23–24, and accompanying text. Additionally, it is unclear whether any of the Petitioners' other arguments concerning CO emissions from the SMR or boiler (as discussed in the previous subsection), or

### C. Claims Concerning Auxiliary Boiler VOC Emissions

**Petitioners' Claims:** The Petitioners raise multiple issues concerning VOC emissions from the auxiliary boiler. The Petitioners claim that the Permit does not require any testing for VOC emissions from the auxiliary boiler. August 2017 Petition at 8, 9. The Petitioners challenge LDEQ's RTC, and assert that “[t]he auxiliary boiler is a combustion source, which means it emits pollutants to the atmosphere. Therefore, to assure that the emission limits on this boiler are enforceable as a practical matter, performance tests must be performed.” *Id.* at 8.

The Petitioners also challenge the Permit’s reliance on an emission factor of 5.5 lb/MMscf (pounds per million standard cubic feet), derived from AP-42,<sup>32</sup> to demonstrate compliance with VOC emission limits on the boiler. *Id.* at 8 (citing SR 115). The Petitioners quote text from the introduction of AP-42 stating that “[u]se of these factors as . . . emission regulation compliance determinations is not recommended by EPA.” *Id.* (quoting AP-42, Introduction, p.2). The Petitioners address LDEQ’s RTC, and claim that in a proposed EPA rule that LDEQ referenced, “EPA did not state that it supports the use of emission factors to determine compliance with permit limits.” *Id.*

Similar to claims discussed above concerning CO emissions from the boiler and SMR, the Petitioners allege that the Permit fails to require that monthly VOC emissions be summed to calculate annual emissions from the auxiliary boiler. *See id.* at 9. Additionally, the Petitioners claim that LDEQ does not explain how the oxygen trim system (discussed above relative to CO emissions) will be used to demonstrate compliance with VOC emission limits on the boiler. *See id.* at 7–8.

The Petitioners also claim that “[t]he permit does not require that all emissions from the boiler, including during startup, shutdown, and maintenance be monitored or estimated, as feasible, and reported.” *Id.* at 10. The Petitioners acknowledge the reporting requirements in April 2017 Permit SR 372 (Final Permit SR 374), but claim that the Specific Conditions in the Permit “must provide that VOC emissions from the boiler during SSM be included when determining compliance with the annual emission limit for the boiler.” *Id.* at 11.

**EPA’s Response:** For the following reasons, the EPA denies the Petitioners’ request for an objection on the claims related to the auxiliary boiler VOC emissions.

SR 115 specifies the compliance demonstration method for VOC from the auxiliary boiler, requiring: “The permittee shall record the amount of natural gas combusted each day as required

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VOC emissions from the boiler (as discussed in the next subsection), might have also been intended to apply to VOC emissions from the SMR. Although the Petitioners’ failure to clearly and expressly lay out any such claims and analysis is sufficient reason to deny any such inchoate claims, to the extent that the Petitioners intended any of the arguments discussed above or below to also apply to VOC emissions from the SMR, those claims are denied for the same reasons discussed above and below.

<sup>32</sup> AP-42 is the EPA’s compilation of air pollutant emission factors and process information for more than 200 air pollution source categories. *See https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors.*

by 40 CFR 60.49b(d)(1). VOC emissions shall be calculated monthly using an emission factor of 5.5 lb/MM scf (AP-42 Section 1.4, Table 1.4-2)."

In responding to public comments concerning the lack of stack testing for VOC from the auxiliary boiler, LDEQ provided the following explanation: "VOC emissions from the Auxiliary Boiler are due to incomplete combustion; it does not serve as a control device for any process vent streams. For this reason, LDEQ did not require [Yuhuang] to conduct a performance test." RTC at 33. The Petitioners, instead of challenging LDEQ's justification, simply assert that it was "incorrect." August 2017 Petition at 8. However, the Petitioners provided no information or analysis refuting any of LDEQ's assertions.<sup>33</sup> Rather, the Petitioners' sole argument is that, because the boiler is a combustion source that "emits pollutants to the atmosphere," performance tests must be performed to assure that the emission limits are enforceable as a practical matter. August 2017 Petition at 8. Essentially, the Petitioners' argument is that stack testing is always necessary for all sources of pollution. Yet the Petitioners cite no authority to support this assertion. While stack testing may be necessary to confirm the emission profiles of many combustion sources, the Petitioners have made no attempt to demonstrate why it is necessary for VOC emissions from the natural gas-fired auxiliary boiler at the Yuhuang facility. Therefore, the Petitioners have not met their burden to demonstrate that the Permit is deficient due to the lack of stack testing for VOC from the boiler.

The Petitioners also challenge the Permit requirement to use the AP-42 emission factor of 5.5 lb/MMscf—in lieu of a stack test—to calculate VOC emissions from the boiler. The Petitioners claim that the EPA does not recommend the use of AP-42 emission factors for compliance demonstration purposes. *See* August 2017 Petition at 8. On the other hand, LDEQ contends that the "EPA has recognized that 'the use of emission factors has expanded . . . to . . . determining compliance with emissions standards.'" RTC at 33 (quoting 74 FR 52724 (October 14, 2009)). LDEQ is correct that emission factors are often used in compliance demonstrations. In some cases, as in the case of the CO emissions from the auxiliary boiler and SMR discussed above, source-specific emission factors are developed through stack testing; in other cases, emission factors are supplied and guaranteed by a product manufacturer; and in other cases, emission factors may be based on scientific literature, including the EPA's AP-42 publications. As with other considerations concerning title V monitoring and compliance assurance provisions, the determination of whether it is necessary to develop a source-specific emission factor to calculate emissions of a particular pollutant from a particular unit for compliance demonstration purposes is a highly fact-specific inquiry. Here, LDEQ determined, in its professional judgement, that it was appropriate to adopt the EPA's AP-42 emission factor for VOC emissions from natural gas-fired boilers. The Petitioners have offered no information or analysis to rebut this determination other than their generalized concerns with the use of AP-42 emission factors. For example, the Petitioners have not explained why they believe the specific emission factor adopted by LDEQ—5.5 lbs/MMscf—is either inaccurate, unreliable, or inappropriate for this particular application (auxiliary boiler VOC emissions). In order to demonstrate a flaw in the Permit, general allegations are not enough. The EPA expects petitioners to provide the requisite citations and

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<sup>33</sup> The Petitioners have not, for example, attempted to demonstrate that LDEQ's assertion that VOC emissions are due to incomplete combustion was incorrect, nor that LDEQ's contention that the boiler does not serve as a control device for any process streams was inaccurate.

analyses in support of their claims.<sup>34</sup> Here, the Petitioners have not demonstrated that LDEQ’s decision to rely on the 5.5 lbs/MMscf AP-42 emission factor was inappropriate, or that the Permit lacks adequate monitoring to assure compliance with the VOC emission limit on the auxiliary boiler.<sup>35</sup>

Regarding the Petitioners’ claim concerning the need to sum monthly emissions in order to demonstrate compliance with annual emissions limits, this claim is denied for the same reasons as discussed above relative to CO emissions from the SMR and auxiliary boiler.<sup>36</sup>

Finally, the Petitioners assert that the Permit does not require that all emissions—including those during startup, shutdown, and maintenance—be monitored or estimated and reported for purposes of demonstrating compliance with the annual VOC emission limit on the boiler.<sup>37</sup> As the Petitioners acknowledge, April 2017 Permit SR 372 (Final Permit SR 374) incorporates LAC 33:III.919.F.1.b, which requires annual reporting of actual emissions, including emissions during maintenance, startup-ups, shutdowns, upsets, and downtime. The Air Permit Briefing Sheet attached to the April 2017 Permit also explicitly states that “*all actual emissions* must be reported and compared to the permit’s emission limitations for purposes of determining compliance.” April 2017 Permit at pdf p. 8 (emphasis in original). Moreover, LDEQ, in its RTC, explained that the annual VOC emission limit on the boiler accounts for startup, shutdown, and maintenance emissions. RTC at 35. These provisions in the Permit and permit record indicate that all emissions, including emissions during maintenance, startups, shutdowns, and maintenance, will be accounted for in demonstrating compliance with the relevant emission limits. The Petitioners have provided no analysis to support their conclusory assertion that the requirement to include startup, shutdown, and malfunction emissions in compliance demonstrations must be included in the Specific Requirements. The Petitioners do not explain why this is necessary or why the existing permit terms are inadequate. Therefore, the Petitioners have not demonstrated why any additional clarification must be included in the Specific Requirements section of the Permit.

For the foregoing reasons, the EPA denies the Petitioners’ request for an objection on these claims.

#### D. Claims Concerning Fugitive CO Emissions

**Petitioners’ Claim:** The Petitioners challenge the adequacy of monitoring for fugitive CO emissions contained in Final Permit SR 247. The Petitioners claim that this condition “requires CO emissions to be estimated using EPA protocols assuming CO gas stream composition based only on ‘process engineering knowledge’ or 52%.” August 2017 Petition at 11. The Petitioners

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<sup>34</sup> See *supra* notes 6, 7, and accompanying text.

<sup>35</sup> The EPA is not, in this Order, making any determination as to whether it is appropriate for Yuhuang to rely on the AP-42 emission factor at issue for compliance demonstration purposes.

<sup>36</sup> See *supra* note 27 and accompanying text.

<sup>37</sup> The scope of this claim is unclear because although the text of the Petition refers only to VOC emissions from the boiler, the header to the table row containing this claim also references CO emissions. August 2017 Petition at 10–11. It is also unclear whether the Petitioners intended for this claim to apply other emission units beyond the auxiliary boiler. In any case, the EPA’s response would apply to any other pollutants or emission units to the extent that they are implicated by this claim.

assert that this condition, and LDEQ’s RTC, are inadequate, because there is no requirement to measure actual CO concentrations in the gas streams, and because LDEQ does not provide the “engineering knowledge” referenced in SR 247, which the Petitioners contend should be currently knowable and contained in the permit record. *Id.*

**EPA’s Response:** For the following reasons, the EPA denies the Petitioners’ request for an objection on the claims related to fugitive CO emissions.

The April 2017 Permit SR 246 (Final Permit SR 247) states the method for demonstrating compliance with fugitive CO emissions:

Fugitive CO emissions shall be calculated using EPA’s Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), actual monitoring data as required by 40 CFR 63 Subpart H, and the percent CO gas stream composition. CO gas stream composition may be based on process engineering knowledge for the gas stream being serviced by the fugitive components or may be assumed to be 52%.

The Petitioners claim that the Permit does not contain a requirement to measure actual CO concentrations in equipment, such as pipes and flanges, that are sources of fugitive emissions. However, the Petitioners do not explain why this direct measurement would be necessary, rather than the existing permit terms for demonstrating compliance. The Petitioners also do not offer any explanation of why they believe it is inappropriate for Yuhuang to calculate the CO concentrations based either on 52 percent or on process engineering knowledge, as the Permit currently allows.<sup>38</sup> The Petitioners claim that engineering knowledge should be currently knowable and contained in the permit record. However, the Petitioners provide no reasoning or analysis of why, if the facility uses engineering knowledge to calculate the CO gas stream composition, this engineering knowledge must be included in the Permit or permit record, particularly when LDEQ has provided a number to use in lieu of one based on engineering knowledge, i.e., 52 percent. Overall, the Petitioners’ brief, conclusory allegations do not establish any basis to conclude that LDEQ’s approach to allow CO concentration calculations to be based on process engineering calculations or the 52 percent assumption does not assure compliance with applicable CO fugitive emission limit.

For the foregoing reasons, the EPA denies the Petitioners’ request for an objection on these claims.

## **E. Claims Concerning Truck, Railcar, and Marine Loading VOC Emissions**

**Petitioners’ Claims:** The Petitioners claim various conditions related to truck, railcar, and marine loading operations (April 2017 Permit SR 253–255; Final Permit SR 255–257) are insufficient. The Petitioners assert that “Pressure must be continuously monitored and recorded.” *Id.* at 11–12. The Petitioners argue that the requirement that Yuhuang load methanol under negative pressure is “not practical or enforceable” because the loading system is not designed to automatically shut down under positive pressure. *Id.* at 12.

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<sup>38</sup> The Petitioners do not expressly challenge the use of the 52 percent CO assumption as an alternative to process engineering knowledge, which LDEQ described as “very conservative.” RTC at 37.

The Petitioners also assert that LDEQ did not resolve the EPA's August 2016 objection because the Permit "does not include any enforceable throughput limits." *Id.* The Petitioners additionally claim that the Permit does not contain annual limits for PM, NOx, CO, or VOCs and no hourly limits for PM or NOx from marine, railcar, and truck loading. *Id.* The Petitioners, addressing LDEQ's RTC, claim that "it remains unclear how the figures in the 'Inventories' section [of the Permit] apply as enforceable limits." *Id.*

**EPA's Response:** For the following reasons, the EPA denies the Petitioners' request for an objection on the claims related to the loading VOC emissions.<sup>39</sup>

The Permit contains the following term specifying the compliance demonstration method for VOC emissions from marine loading:

Compliance demonstration method for M LOAD: VOC emissions shall be calculated monthly using Equation 1 of AP-42 Section 5.2, the volume of methanol loaded into barges and ships as recorded per 40 CFR 63.567(j) of Subpart Y, the saturation factor from Table 5.2-1 applicable to the specific type of loading performed, the average daily temperature of the methanol stored in the methanol product tanks during the calendar month in which the loading occurs, and the control efficiency of the vapor combustion unit determined in accordance with 40 CFR 63.563(b)(1) and 63.565(d) of Subpart Y.

April 2017 Permit SR 253; Final Permit SR 255. The Permit contains similar provisions for Rail and Truck Loading. *See April 2017 Permit SR 254; Final Permit SR 256* (similar, but referencing Subpart G instead of Subpart Y). Additionally, the Permit specifies:

For each loading operation, install a pressure/vacuum gauge on the suction side of the blower system(s) to verify a vacuum in the vessel being loaded. Record gauge readings every 15 minutes during loading activities. Loading must be discontinued if positive pressure readings are observed.

April 2017 Permit SR 256; Final Permit SR 258. The Permit also contains numerous other requirements on the loading operations derived from the Subpart Y and Subpart G NESHAP standards. *See April 2017 Permit SR 151-192, Final Permit SR 152-193* (relevant Subpart Y requirements for marine loading); April 2017 Permit SR 305-326, Final Permit SR 307-328 (relevant Subpart G requirements for truck and railcar loading). The Compliance Demonstration Methodologies Table summarizes some of these NESHAP requirements. *See April 2017 Permit at pdf p. 33-34; Final Permit at pdf p. 32-33.*

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<sup>39</sup> Although the Petitioners cite Final Permit SRs 255–257, which specify the compliance demonstration methodologies for both loading (SR 256 and 256) and tank (SR 257) emissions, the Petitioners' claims only directly discuss loading emissions. As such, the EPA's response only considers the provisions associated with loading. However, a similar rationale would apply to the extent that the Petitioners had claimed defects with the tank compliance demonstration methodologies.

The Petitioners broadly assert that the Permit’s “requirements are insufficient,” Petition at 11, but offer no citation or analysis in support of this assertion. Notably, the Petitioners failed to address or evaluate the provisions discussed above, all of which are clearly relevant to how compliance is assured and demonstrated from the truck, railcar, and marine loading operations. Instead of evaluating these provisions and explaining why they are allegedly insufficient, the Petitioners argue that two specific additional requirements are necessary. First, the Petitioners claim that pressure must be continuously monitored and reported. The Petitioners fail to acknowledge that the Permit clearly requires monitoring and recording of pressure every 15 minutes during all loading activities. April 2017 Permit SR 256; Final Permit SR 258. Moreover, the Petitioners have provided no explanation for why monitoring pressure every 15 minutes is inadequate, such that more frequent monitoring is necessary. Second, the Petitioners suggest that the loading system must automatically shut down on any occurrence of positive pressure. However, contrary to the Petitioners’ assertions, the Permit already contains enforceable conditions to support the requirement that loading be conducted under negative pressure. *See* April 2017 Permit SR 256; Final Permit SR 258 (“Loading must be discontinued if positive pressure readings are observed.”). The Petitioners provide no explanation for why the existing shutoff requirement is inadequate, or why an automatic shutoff mechanism is necessary.

Regarding the lack of throughput limits associated with the loading operations, LDEQ explained why the Permit does not contain any throughput limits, stating “Throughput limits are not necessary because emission limits for each loading operation – railcar, tank truck, and marine – are based on a throughput of 567,864,224 gallons per year of methanol (i.e., the full annual design capacity of the plant).” RTC at 40. The Petitioners offer no explanation for why this response is unreasonable, or why a throughput limit must be included in the Permit.

Regarding the other emission limits that the Petitioner claims are absent from the Permit, Petition at 12, the Petitioners are simply incorrect. Contrary to the Petitioners assertions, the Permit does contain hourly as well as annual limits for each of the pollutants identified by the Petitioners. Final Permit at pdf p. 44–45 (Emission Rates for Criteria Pollutants table); *see* RTC at 40 (clearly explaining that the Permit contains the aforementioned limits). The hourly limits are identified for each type of loading operation, and the annual limits are specified under the Methanol Transfer and Product Cap (which covers all of the loading operations). The Petitioners’ claims, therefore, have no merit.

For the foregoing reasons, the EPA denies the Petitioners’ request for an objection on these claims.

#### F. Claims Concerning Storage Tank VOC and HAP Emissions

**Petitioners’ Claims:** The Petitioners claim that permit terms addressing tank VOC emission calculations from the storage tanks (April 2017 Permit SR 252 and 255) are inadequate because “these and other conditions fail to require that tank temperature, vapor pressure, and vapor molecular weight be monitored and used in these calculations.” August 2017 Petition at 13. The Petitioners challenge LDEQ’s RTC, claiming that calculations based on “average daily

temperature of the methanol stored during the calendar month” is inadequate, because it does not require monitoring of actual temperatures, which will vary. *Id.*<sup>40</sup>

The Petitioners claim that monitoring vapor pressure and vapor molecular weight are especially important for tanks containing raw or crude methanol, because it “contains impurities, unconverted reactants, and traces of dissolved gases that would affect vapor pressure and hence VOC emissions.” *Id.* at 14. The Petitioners claim that LDEQ’s use of pure methanol as a surrogate for crude methanol is inappropriate because LDEQ does not substantiate its assertions about the concentration of typical impurities in crude methanol. *Id.*

The Petitioners also claim that April 2017 Permit SR 252 and SR 255 are silent on whether HAP emissions from the tanks would be included. *Id.* at 13. The Petitioners assert that the Permit must specify whether HAP emissions are included, because methanol contains various impurities that are HAP. *Id.*

**EPA’s Response:** For the following reasons, the EPA denies the Petitioners’ request for an objection on the claims related to the tank VOC and HAP emissions.

First, with regard to the Petitioners’ concerns about the methanol product tanks, the Permit specifies the following compliance demonstration methodology:

VOC emissions, including those attributed to roof landings, shall be calculated monthly using the equations set forth in AP-42 Section 7.1.3.2 (Total Losses From Floating Roof Tanks); the design parameters of the storage tanks, as constructed (e.g., tank dimensions, paint characteristics, rim-seal system, deck type, deck fittings, etc.); the actual throughput of methanol; and the average daily temperature of the methanol stored during the calendar month. Emissions from tank cleanings shall be calculated using API Technical Document 2568 (Evaporative Loss from the Cleaning of Storage Tanks).

April 2017 Permit SR 255; Final Permit SR 257. Among other conditions, the Permit also requires that the permittee “monitor and record the temperature of the methanol stored in each tank daily.” April 2017 Permit SR 303, Final Permit SR 305. Thus, the Petitioners’ claims that the Permit does not require that tank temperature be used to calculate VOC emissions, and that the Permit does not require monitoring of actual temperature, are plainly incorrect.

The Petitioners’ other allegations concerning the methanol product tanks are similarly without merit. First, the AP-42 equations incorporated by the Permit clearly require the use of vapor pressure and vapor molecular weight (among many other variables) in the calculations to determine tank VOC emissions. *See* AP-42 Section 7.1.3.2. Regarding the Petitioners’ claim that these variables must be directly monitored, LDEQ, in responding to comments, provided the following explanation:

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<sup>40</sup> The Petitioners later acknowledge that SR 302 (likely referring to April 2017 Permit SR 303, instead) requires daily monitoring and recording of the temperature of methanol stored in each tank, but again reiterate their claim that “monitoring is not required for vapor pressure and vapor molecular weight, which are key inputs for tank VOC and HAP emission calculations.” *Id.* at 14.

Because the tanks in question are dedicated to the storage of refined Grade AA (i.e., pure) methanol, the molecular weight of the product is known and the vapor pressure can be readily calculated using the temperature of the liquid; therefore, monitoring of these parameters is not necessary.

RTC at 41. The Petitioners have not attempted to refute this explanation, nor have the Petitioners provided any other evidence or argument in support of their claim that vapor pressure or vapor molecular weight must be directly monitored from the methanol product tanks. In fact, the Petitioners appear to later concede that this is unnecessary, claiming that these variables must be monitored “from all tanks containing any methanol product except pure methanol.” August 2017 Petition at 14.

Regarding the Petitioners’ concerns about the crude methanol tanks, as an initial matter, the Petitioners did not cite or evaluate any permit conditions governing emissions from the crude methanol tanks.<sup>41</sup> The Petitioners suggest that the presence of impurities would result in crude methanol having a different vapor pressure and vapor molecular weight than pure methanol, and, therefore, that it is inappropriate to rely on these characteristics of pure methanol as a surrogate for crude methanol. However, LDEQ explained in its RTC that various impurities in crude methanol “are usually present in concentrations of no more than several hundred parts per million. In addition, some, particularly the higher alcohols, have much lower vapor pressures than methanol. Further, methyl formate, methyl acetate, and acetone are not classified as VOCs per 40 CFR 51.100(s)(1). Thus, it is reasonable to calculate potential emissions from the Raw Methanol Tank using pure methanol as a surrogate.” RTC at 43. Beyond alleging that LDEQ’s assertions were “not substantiated,” again attempting to shift the burden to LDEQ, the Petitioners have not attempted to actually refute LDEQ’s conclusions. As the EPA has repeatedly stated, the EPA expects petitioners to address the permitting authority’s reasoning when it is available during the timeframe for filing the petition.<sup>42</sup> The Petitioners have failed to demonstrate that LDEQ’s justification was unreasonable, and the Petitioners have not provided any other analysis demonstrating that the Permit is deficient with respect to crude tank VOC emissions.

Regarding the Petitioners’ brief claim that the Permit is “silent on whether HAP emissions would be included,” August 2017 Petition at 13, it is unclear why the Petitioners believe such a silence results in a permit deficiency. The Petitioners have not attempted to explain why, for example, separate HAP emission limits on specific tanks might be required by an applicable requirement or to assure compliance with an applicable requirement, or why particular HAP emissions must otherwise be monitored. Moreover, LDEQ noted that the permit conditions are not silent regarding HAP emissions, explaining why April 2017 Permit SR 252 referenced both VOC and methanol (the only HAP emitted), and why April 2017 Permit SR 255 only referenced VOC. *See*

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<sup>41</sup> Instead, each of the permit terms cited by the Petitioners govern emissions from the product tanks dedicated to the storage of refined methanol.

<sup>42</sup> *See supra* note 5 and accompanying text.

RTC at 41. The Petitioners have not attempted to refute these assertions or otherwise explain the Permit must account in any specific way for HAP emissions.<sup>43</sup>

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on these claims.

#### **G. Claims Concerning Flare VOC, PM, and CO Emissions**

**Petitioners' Claims:** The Petitioners claim that, in addition to failing to resolve issues raised in the EPA's August 2016 objections, the Permit also "does not include sufficient compliance demonstration requirements for VOC or PM emissions from the flare." August 2017 Petition at 14. Regarding VOC, the Petitioners request that "VOC be continuously monitored in vent gases at the flare manifold and VOC emissions calculated form the volume of vent gas, VOC concentration, and vendor guaranteed flare combustion efficiency." *Id.* Regarding both PM and VOC, the Petitioners assert that the Permit's reliance on AP-42 emission factors (in SR 123) to demonstrate compliance is inappropriate for the same reasons as discussed above with respect to VOC emissions from the auxiliary boiler. *See id.* at 14–15. The Petitioners also briefly assert that there is no requirement that VOC or PM emissions be summed to estimate annual emissions. *Id.* at 15.

The Petitioners also claim that the Yuhuang facility has the potential to emit more than 100 tpy of CO from the flare, providing estimate of predicted CO emissions from the flare based on average and maximum operating rates. *See* August 2017 Petition at 16–18. The Petitioners also allege generally that "the permit must include limits that are practically enforceable," and that the Permit must include additional restrictions on the number or duration of startups. *Id.* at 17

**EPA's Response:** For the following reasons, the EPA denies the Petitioners' request for an objection on the claims related to the flare VOC, PM, and CO emissions.

Regarding the Petitioners' claim that VOC should be continuously monitored in vent gases and calculated from the volume of vent gas, VOC concentration, and vendor guaranteed flare combustion efficiency, the Petitioners provide no explanation for why this specific methodology is necessary, or why the current methodology is inadequate. The Petitioners, in arguing that it is inappropriate for the Permit to rely on AP-42 emission factors for VOC and PM emissions from the flare, present the same general, unsupported arguments as discussed above with respect to VOC emissions from the auxiliary boiler. Again, the Petitioners have provided no evidence or technical analysis to demonstrate that it was inappropriate to use the specific emission factors adopted by LDEQ for calculating flare VOC and PM emissions.<sup>44</sup>

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<sup>43</sup> Additionally, the scope of the current permit modification action (and thus, the scope of the petition opportunity) is limited to those portions of the Permit that LDEQ has proposed to modify in the current permit action. *See In the Matter of Hu Honua Bioenergy, LLC*, Order on Petition No. VI-2014-10 at 38–40 (September 16, 2016); *In the Matter of WPSC – Weston*, Order on Petition No. V-2006-4 at 5–7 (December 19, 2007). The current permit modification does not include changes to any provisions specifically dealing with HAP emissions from storage tanks. Therefore, issues concerning HAP emission limits or HAP emissions are beyond the scope of the current permit modification action.

<sup>44</sup> *See supra* note 35 and accompanying text (referring to entire paragraph).

Regarding the Petitioners' claim concerning the lack of a requirement to sum VOC and PM emissions in order to estimate annual flare emissions, the Petitioners are incorrect. The Permit clearly states that all emissions from the flare "shall be summed for purposes of determining compliance with applicable ton per year emission limits." Permit SR 123.<sup>45</sup>

Finally, regarding the Petitioners' claims concerning flare CO emissions, the Petitioners have not demonstrated a flaw in the Permit. While the Petition includes a brief, generic allegation that "the permit must include limits that are practically enforceable," August 2017 Petition at 17, it does not include any discussion regarding the flare CO emission limits that are currently in the Permit, much less any explanation of why these limits are allegedly not enforceable.<sup>46</sup> Instead of discussing why the existing permit terms are not adequate, the Petitioners instead allege that the Permit must include additional restrictions on the number or duration of startups. However, this claim is based either on the Petitioners' claims regarding the facility's PTE calculations (which the EPA is not reaching),<sup>47</sup> or the Petitioners' unsupported claims regarding the enforceability of existing emission limits (which the EPA is denying).<sup>48</sup> The Petitioners have not otherwise demonstrated why the existing permit terms are inadequate, or why additional restrictions are necessary, and have failed to address the substance of LDEQ's response on this issue. Therefore, the Petitioners have not demonstrated a basis for the EPA to object to this claim.

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on these claims.

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<sup>45</sup> The EPA's discussion above with respect to CO emissions from the SMR and auxiliary boiler and VOC emissions from the auxiliary boiler would also apply to the flare emissions at issue here. *See supra* notes 27 and 36 and accompanying text.

<sup>46</sup> To the extent that, in the course of challenging the source's PTE calculations for CO from the flare, the Petitioners also intended to question whether the short-term emission rates reflected in the table titled, "Emission Rates For Criteria Pollutants and CO<sub>2</sub>e" (i.e., the 6.56 lb/hr average rate and 739.60 lb/hr maximum rate) are enforceable as a practical matter, these claims are denied. Specifically, the Petitioners have provided no analysis expressly challenging the enforceability of the short-term (or long-term) flare CO limits in the permit.

<sup>47</sup> As discussed above, *supra* note 16 and accompanying text, the EPA is not responding to the Petitioners' arguments concerning the calculation of the facility's PTE for purposes of determining PSD applicability in this title V petition order. As noted above, this does not indicate that the EPA necessarily agrees with the conclusions reached by LDEQ regarding these preconstruction permitting decisions. *See supra* note 15.

<sup>48</sup> In denying these unsupported claims, the EPA is not making a judgment regarding the enforceability of the CO limits on the flare, nor should this response be interpreted explicitly or implicitly as an approval of the enforceability of these limits.

## V. CONCLUSION

For the reasons set forth above and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), I hereby deny the Petitions as described above.

Dated: APR 02 2013



E. Scott Pruitt  
Administrator