

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)	PETITION NOS. VI-2020-4,
)	VI-2020-6, VI-2021-1,
EXXONMOBIL FUELS & LUBRICANT COMPANY)	AND VI-2021-2
BATON ROUGE REFINERY)	
REFORMING COMPLEX AND UTILITIES UNIT)	ORDER RESPONDING TO
EAST BATON ROUGE PARISH, LOUISIANA)	PETITIONS REQUESTING
)	OBJECTION TO THE ISSUANCE OF
)	TITLE V OPERATING PERMITS
PERMIT NOS. 2261-V8 & 2363-V8)	
)	
ISSUED BY THE LOUISIANA DEPARTMENT OF)	
ENVIRONMENTAL QUALITY)	

ORDER GRANTING PETITIONS FOR OBJECTION TO PERMITS

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received four petitions dated March 27, 2020, May 11, 2020, January 29, 2021, and February 12, 2021 (collectively the Petitions), each from Louisiana Bucket Brigade, Earthjustice, Environmental Integrity Project, and Sierra Club (the Petitioners), 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 Petitions request that the EPA Administrator object to operating permit Nos. 2261-V8 and 2363-V8 (the Permits) issued by the Louisiana Department of Environmental Quality (LDEQ) to the ExxonMobil Fuels and Lubricants Company (ExxonMobil) for the “Reforming Complex” and “Utilities Unit” at the Baton Rouge Refinery in East Baton Rouge Parish, Louisiana. The operating permits were issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and Louisiana Administrative Code (LAC) 33.III.507. *See also* 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). These types of operating permits are also referred to as title V permits or part 70 permits.

Based on a review of the Petitions and other relevant materials, including the Permits, the permit records, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, the EPA grants the January 29, 2021 and February 12, 2021 Petitions requesting that the EPA Administrator object to the Permits.¹

¹ As discussed later in this Order, the two 2020 Petitions were superseded by the two 2021 Petitions and are, therefore, moot. Furthermore, the EPA’s response to the 2021 Petitions will also effectively resolve the 2020 Petitions.

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, revised this program on November 10, 1994. 40 C.F.R. part 70, Appendix A. The EPA granted full approval of Louisiana's title V operating permit 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 and operate in accordance with title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. 42 U.S.C. §§ 7661a(a), 7661b, 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see* 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. at 32251. Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

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

Each petition must identify the proposed permit on which the petition is based and identify the petition claims. 40 C.F.R. § 70.12(a). Any issue raised in the petition as grounds for an objection must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements under part 70. 40 C.F.R. § 70.12(a)(2). Any

arguments or claims the petitioner wishes the EPA to consider in support of each issue raised must generally be contained within the body of the petition.² *Id.*

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting authority (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); *see also* 40 C.F.R. § 70.12(a)(2)(v).

In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).³ Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA.⁴ 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)).⁵ 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 1130–31.⁶ 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 FR 57822, 57829–31 (August 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*).

² 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.*

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

⁴ *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.

⁵ *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)).

⁶ *See also Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

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 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.”).⁷ Relatedly, the EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g., In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013).⁸ 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).⁹

Another factor the EPA examines is whether the petitioner has addressed the state or local permitting authority’s decision and reasoning. Petitioners are required to address the permitting authority’s final decision and final reasoning (including the state’s response to comments) where these documents were available during the timeframe for filing the petition. 40 C.F.R. § 70.12(a)(2)(vi); *see MacClarence*, 596 F.3d at 1132–33.¹⁰ 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.*

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

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

¹⁰ *See also, e.g., Finger Lakes Zero Waste Coalition v. EPA*, 734 Fed. App’x *11, *15 (2d Cir. 2018) (summary order); *In the Matter of Noranda Alumina, LLC*, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state’s explanation in response to comments or explain why the state erred or why the permit was deficient); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state’s response to comments or provide a particularized rationale for why the state erred or the permit was deficient); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (January 8, 2007) (*Georgia Power Plants Order*) (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).

The information that the EPA considers in making a determination whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. 40 C.F.R. § 70.13. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement required by § 70.7(a)(5) (sometimes referred to as the ‘statement of basis’); any comments the permitting authority received during the public participation process on the draft permit; the permitting authority’s written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; and all materials available to the permitting authority that are relevant to the permitting decision and that the permitting authority made available to the public according to § 70.7(h)(2). *Id.* If a final permit and a statement of basis for the final permit are available during the agency’s review of a petition on a proposed permit, those documents may also be considered when making a determination whether to grant or deny the petition. *Id.*

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

When the permitting authority revises a permit or permit record in order to resolve an EPA objection, it must go through the appropriate procedures for that revision. The permitting authority should determine whether its response is a minor modification or a significant modification to the title V permit, as described in 40 C.F.R. § 70.7(e)(2) and (4) or the corresponding regulations in the state’s EPA-approved title V program. If the permitting authority determines that the modification is a significant modification, then the permitting authority must provide for notice and opportunity for public comment for the significant modification consistent with 40 C.F.R. § 70.7(h) or the state’s corresponding regulations.

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

When a permitting authority responds to an EPA objection, it may choose to do so by modifying the permit terms or conditions or the permit record with respect to the specific deficiencies that the EPA identified; permitting authorities need not address elements of the permit or the permit record that are unrelated to the EPA’s objection. As described in various title V petition orders,

the scope of the EPA’s review (and accordingly, the appropriate scope of a petition) on such a response would be limited to the specific permit terms or conditions or elements of the permit record modified in that permit action. *See In The Matter of Hu Honua Bioenergy, LLC*, Order on Petition No. VI-2014-10 at 38–40 (September 14, 2016); *In the Matter of WPSC, Weston*, Order on Petition No. V-2006-4 at 5–6, 10 (December 19, 2007).

III. BACKGROUND

A. The Baton Rouge Refinery

ExxonMobil’s Baton Rouge Refinery, located in East Baton Rouge Parish, Louisiana, began operations in 1909 and currently has the capacity to refine over 502,500 barrels of crude oil per day. The refinery manufactures approximately 300 products, including gasoline, diesel, aviation gasoline, lubricating oils, waxes, and petroleum coke. Emission units within the facility are subject to the PSD program, other preconstruction permitting requirements, and various New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). The refinery is a major source of air pollution and is subject to title V of the CAA. For administrative convenience, LDEQ has issued separate title V permits to different components of the refinery. Two of those components are at issue here: the “Reforming Complex” and “Utilities Unit.” The Reforming Complex includes the Baton Rouge Refinery’s catalytic reforming units (including vents and other emission points associated with reforming activities), three cooling towers, and various furnaces. The Utilities Unit includes the refinery’s wastewater treatment system, including wastewater collected throughout the refinery and onsite processing units.

The EPA conducted an analysis using EPA’s EJSCREEN¹¹ to assess key demographic and environmental indicators within a five kilometer-radius of the Baton Rouge Refinery. This analysis showed a total population of approximately 56,639 residents within a five-kilometer radius of the facility, of which approximately 89 percent are people of color and 63 percent are low income. In addition, the EPA reviewed the EJSCREEN Environmental Justice Indices, which combine certain demographic indicators with eleven environmental indicators. All 11 Environmental Justice Indices in this five-kilometer area exceed the 80th percentile in the State of Louisiana, with eight of the 11 Environmental Justice indices exceeding the 90th percentile.

B. Permitting History

Reforming Complex

ExxonMobil first obtained a title V permit for the Baton Rouge Refinery’s Reforming Complex in 2004, which has since been renewed. On June 14, 2018, ExxonMobil submitted an application for a title V permit renewal and modification. LDEQ published notice of a draft permit on January 27, 2020 (the January 2020 Draft Reforming Permit), subject to a public comment

¹¹ EJSCREEN is an environmental justice mapping and screening tool that provides the EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. *See* <https://www.epa.gov/ejscreen/what-ejscreen>.

period that ran until March 2, 2020. On January 30, 2020, LDEQ also submitted the same version of the permit and Statement of Basis to the EPA, initially treating this version of the permit as both a “draft permit” (subject to public review) and “proposed permit” (subject to EPA review). The Petitioners submitted a petition challenging the January 2020 Draft Reforming Permit on May 11, 2020.

Subsequently, based on comments submitted during the public comment period, LDEQ made changes to the January 2020 Draft Reforming Permit. On October 15, 2020, LDEQ submitted a new version of the proposed title V permit (the October 2020 Proposed Reforming Permit), along with the associated Response to Comments document (Reforming RTC), to the EPA for its 45-day review period. The EPA’s review period ended on November 30, 2020, during which time the EPA did not object to the October 2020 Proposed Reforming Permit. On January 29, 2021, the Petitioners submitted a petition challenging the October 2020 Proposed Reforming Permit. LDEQ issued the final title V permit renewal and modification for the Reforming Complex, Permit No. 2261-V8, on March 11, 2021 (the Final Reforming Permit).

Utilities Unit

ExxonMobil first obtained a title V permit for the Baton Rouge Refinery’s Utilities Unit in 1996, which has since been renewed. On December 19, 2018, ExxonMobil submitted an application for a renewal title V permit and modification. LDEQ published notice of a draft permit on December 20, 2019 (the December 2020 Draft Utilities Permit), subject to a public comment period that ran until January 23, 2020. On December 11, 2019, LDEQ submitted the same version of the permit and Statement of Basis to the EPA, initially treating this version of the permit as both a “draft permit” (subject to public review) and “proposed permit” (subject to EPA review). The Petitioners submitted a petition challenging the December 2019 Draft Utilities Permit on March 27, 2020.

Subsequently, based on comments submitted during the public comment period, LDEQ made changes to the December 2019 Draft Utilities Permit. On October 28, 2020, LDEQ submitted a new version of the proposed title V permit (the October 2020 Proposed Utilities Permit), along with the associated Response to Comments document (Utilities RTC), to the EPA for its 45-day review period. The EPA’s 45-day review period ended on December 14, 2020, during which time the EPA did not object to the October 2020 Proposed Utilities permit. On February 12, 2021, the Petitioners submitted a petition challenging the October 2020 Proposed Utilities Permit. LDEQ issued the final title V permit and modification for the Utilities Unit, Permit No. 2363-V8, on March 8, 2021 (the Final Utilities Permit).

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).

Reforming Complex

The Petitioners' May 11, 2020 Reforming Petition preemptively challenged the January 2020 Draft Reforming Permit based on the understanding—valid at the time—that it was a “proposed permit” subject to a petition opportunity.¹² However, the October 2020 Proposed Reforming Permit wholly replaced and superseded the January 2020 Draft Reforming Permit as the “proposed permit” subject to the EPA’s 45-day review and public petition opportunity. That is, after the submission of the October 2020 Proposed Reforming Permit to the EPA, the January 2020 Draft Reforming Permit was no longer a proposed permit subject to a petition opportunity under CAA section 505(b)(2). 40 C.F.R. § 70.8(a)(1)(ii).¹³ Recognizing this, the Petitioners state that “[t]he arguments from [the January 29, 2021 petition] replace those from the May 11, 2020 petition.” January 29, 2021 Reforming Petition at 1 n.2. Thus, even to the extent the May 11, 2020 petition could continue to be considered a valid petition under CAA section 505(b)(2), it is moot, as it was wholly superseded by the January 29, 2021 petition. In any case, the EPA’s response to the January 29, 2021 petition will also effectively resolve the May 11, 2020 petition.¹⁴

LDEQ’s submission of the October 2020 Proposed Reforming Permit to the EPA restarted the timeline for EPA’s review and the opportunity for the public to submit a petition on this permit. Accordingly, the EPA’s website was updated to state that the EPA’s 45-day review of the proposed permit would end on November 30, 2020, with a petition submission deadline of February 1, 2021. The Petitioners submitted a new petition on January 29, 2021. The EPA finds that the Petitioners timely filed the January 29, 2021 Reforming Petition. All references to the “Reforming Petition” throughout the remainder of this Order refer to this January 29, 2021 Reforming Petition.

¹² The January 2020 Draft Reforming Permit was initially treated by LDEQ and the EPA as both a “draft permit” subject to public comment as well as a “proposed permit” subject to EPA review and a petition opportunity. At that time, it was not clear whether LDEQ would, after receiving public comments, transmit a new “proposed permit” to the EPA (thus initiating a new EPA review and petition opportunity). The requirement to submit a new “proposed permit” containing the state’s response to comments was subsequently codified in the EPA’s regulations, with an effective date of April 6, 2020. 85 Fed. Reg. 6431 (February 5, 2020).

¹³ The EPA’s regulations state: “If the permitting authority receives significant comment on the draft permit during the public participation process, but after the submission of the proposed permit to the [EPA] Administrator, the Administrator will no longer consider the submitted proposed permit as a permit proposed to be issued under section 505 of the Act. In such instances, the permitting authority must make any revisions to the permit and permit record necessary to address such public comments, including preparation of a written response to comments (which must include a written response to all significant comments raised during the public participation process . . . , and must submit the proposed permit and the supporting material . . . to the Administrator after the public comment period has closed. This later submitted permit will then be considered as a permit proposed to be issued under section 505 of the Act, and the Administrator’s review period for the proposed permit will not begin until all required materials have been received by the EPA.” 40 C.F.R. § 70.8(a)(1)(ii).

¹⁴ See, e.g., *In the Matter of South Louisiana Methanol, LP*, Order on Petition Nos. VI-2016-24 & VI-2017-14 at 7–8 (May 29, 2018) (*South Louisiana Methanol Order*).

Utilities Unit

The Petitioners' March 27, 2020 Utilities Petition preemptively challenged the December 2019 Draft Utilities Permit based on the understanding—valid at the time—that it was a “proposed permit” subject to a petition opportunity.¹⁵ However, the October 2020 Proposed Utilities Permit wholly replaced and superseded the December 2019 Draft Utilities Permit as the “proposed permit” subject to the EPA’s 45-day review and public petition opportunity. That is, after the submission of the October 2020 Proposed Utilities Permit to the EPA, the December 2019 Draft Utilities Permit was no longer a proposed permit subject to a petition opportunity under CAA section 505(b)(2). 40 C.F.R. § 70.8(a)(1)(ii). Recognizing this, the Petitioners state that “[t]he arguments from [the February 12, 2021 petition] replace those from the March 2020 petition.” February 12, 2021 Utilities Petition at 3. Thus, even to the extent the March 27, 2020 petition could continue to be considered a valid petition under CAA section 505(b)(2), it is moot, as it was wholly superseded by the February 12, 2021 petition. In any case, the EPA’s response to the February 12, 2021 petition will also effectively resolve the March 27, 2020 petition.¹⁶

LDEQ’s submission of the October 2020 Proposed Utilities Permit to the EPA restarted the timeline for EPA’s review and the opportunity for the public to submit a petition on this permit. Accordingly, the EPA’s website was updated to state that the 45-day review of the proposed permit would end on December 14, 2020, with a petition submission deadline of February 16, 2021. The Petitioners submitted a new petition on February 12, 2021. The EPA finds that the Petitioners timely filed the February 12, 2021 Utilities Petition. All references to the “Utilities Petition” throughout the remainder of this Order refer to this February 12, 2021 Utilities Petition.

IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS

The Reforming Petition and Utilities Petition each feature two primary section headings: Background and Grounds for Objection. The Grounds for Objection portion of the Reforming Petition includes six numbered sections (I–VI), and the same portion of the Utilities Petition includes four numbered sections (I–IV). Section I of each Petition includes extensive discussion of environmental justice. *See* Reforming Petition at 4–15; Utilities Petition at 5–18. The Petitioners do not present any specific “grounds for objection” within this discussion on environmental justice; rather, Section I appears to serve as a backdrop for the Petitioner’s more specific permit-focused claims that follow. Section II of each petition contains the first specific basis for objection (*i.e.*, the first “claim”); Section III contains the second claim, etc. For ease of reference, this Order addresses the Petitioners’ claims according to the following numbering system:

- Reforming Petition Section II → Reforming Claim 1
- Reforming Petition Section III → Reforming Claim 2
- Reforming Petition Section IV → Reforming Claim 3
- Reforming Petition Section V → Reforming Claim 4
- Reforming Petition Section VI → Reforming Claim 5

¹⁵ *See supra* note 12.

¹⁶ *See South Louisiana Methanol Order* at 7–8.

- Utilities Petition Section II → Utilities Claim 1
- Utilities Petition Section III → Utilities Claim 2
- Utilities Petition Section IV → Utilities Claim 3

Environmental Justice

Within Section I of the Grounds for Objection section of each Petition, the Petitioners discuss characteristics of the communities surrounding the Baton Rouge Refinery, describing them as “communities of color with a large, dense, and low-income population that is overburdened by hazardous and other air pollution, including from Exxon’s co-located Baton Rouge chemical plant.” Reforming Petition at 5, Utilities Petition at 5. The Petitioners describe the magnitude of hazardous air pollutant (HAP) emissions and other safety incidents at Exxon’s facilities as well as other nearby facilities. *See* Reforming Petition at 5–7, Utilities Petition at 5–7. The Petitioners also describe the demographics of nearby residents and note that the area surrounding the refinery “is above the 80th percentile for ten different environmental justice indexes.” Reforming Petition at 7, Utilities Petition at 8; *see also* Reforming Petition at 13, Utilities Petition at 15–16.

The Petitioners claim that these “environmental justice concerns mandate increased focus and action by EPA to ensure that the permit’s provisions—including its monitoring and reporting provisions—are strong and comply with title V requirements.” Reforming Petition at 4, 8, Utilities Petition at 5, 8. The Petitioners repeat prior EPA statements that title V “can help promote environmental justice . . . through the requirements for monitoring, compliance certification, reporting and other measures intended to ensure compliance with applicable requirements.” Reforming Petition at 10, Utilities Petition at 12 (quoting *In the Matter of United States Steel Corp. – Granite City Works*, Order on Petition No. V-2011-2 at 5 (December 3, 2012) (“*US Steel II Order*”). The Petitioners also note the EPA’s prior statements that “focused attention to the adequacy of monitoring and other compliance assurance provisions is warranted” due to potential environmental justice concerns. Reforming and Utilities Petitions at 8 (quoting *US Steel II Order* at 6). Additionally, the Petitioners assert that Executive Order 12898—which focuses federal attention on environmental justice—“inform[s] EPA’s review of the adequacy of” requirements like monitoring, while acknowledging that this executive order does not create an obligation for EPA to object to a title V permit that complies with all CAA requirements. Reforming Petition at 10, Utilities Petition at 12. The Petitioners note that determining the sufficiency of monitoring is a case-specific inquiry. *Id.* The Petitioners contend that, “As part of that case-by-case determination, environmental justice factors, including the demographics of the surrounding community and amount of pollution burden borne by the community, are factors that must be considered in assessing whether a particular facility’s monitoring is adequate to ensure compliance with the relevant applicable requirements.” Reforming Petition at 11, Utilities Petition at 12. The Petitioners further assert that “it is especially important to ensure that members of the surrounding community can determine whether a facility that is releasing pollution that threatens their health is actually meeting its limits.” Reforming Petition at 11, Utilities Petition at 13.

The Petitioners assert that such an increased focus on the monitoring provisions in the Reforming Complex and Utilities Unit permits is especially important here because: the Reforming Complex is capable of emitting over 50 tons of HAPs per year, Reforming Petition at 8; the

Utilities Unit is allowed to emit hundreds of tons of HAPs per year, Utilities Petition at 9–10, 14; because fence-line data shows that the refinery’s benzene emissions have approached close to a level that triggers corrective action under 40 C.F.R. § 63.658, Reforming Petition at 8-9, 14–15, Utilities Petition at 10–11, 16-17; and because the Reforming Complex’s purge vent and regenerator vent (addressed in Reforming Claims 1 and 2) and wastewater treatment facilities (Utilities Claims 1 and 2) may be a significant source of HAPs, but without additional monitoring, this is impossible to know, Reforming Petition at 8–9; Utilities Petition at 11.

The Petitioners address other environmental justice-related topics related to LDEQ’s responses to public comments on both Permits. The Petitioners claim that the area surrounding the facility has experienced problems complying with the 2015 ozone NAAQS, and assert a connection between the facility’s large volatile organic compound (VOC) emissions and the formation of ground-level ozone. Reforming Petition at 12–13; Utilities Petition at 14–15. Additionally, the Petitioners claim that even in areas that meet the NAAQS or state-only air toxics standards, excess emissions can severely impact the health of nearby communities. Reforming Petition at 11, Utilities Petition at 13. The Petitioners again emphasize the potential harms of HAPs. *See* Reforming Petition at 11–12, Utilities Petition at 13–14. The Petitioners also assert that LDEQ has not resolved a “high priority violation” enforcement action initiated in 2014, and reiterate that adequate monitoring is necessary to determine and adequately enforce compliance. Reforming Petition at 14, Utilities Petition at 16.

The EPA appreciates and takes seriously the Petitioners’ concerns regarding the potential impacts of emissions from the Baton Rouge Refinery on communities living near the facility, and the Petitioners’ desire that the facility’s title V permits contain sufficient monitoring to assure compliance with all applicable requirements. The EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. As the EPA has previously explained:

Executive Order 12898, signed by President Clinton on February 11, 1994, focuses federal attention on the environmental and human health conditions of minority populations and low-income populations with the goal of achieving environmental protection for all communities. Executive Order (EO) 12898 also is intended to promote non-discrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment. It generally directs federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Attention to environmental justice in the implementation of federal environmental programs is a priority for EPA. *See* generally, Office of Environmental Justice Plan EJ 2014 (September 2011) (outlining EPA’s efforts to promote environmental justice and identifying environmental justice and permitting as a focus area).

Environmental justice issues can be raised and considered in the context of a variety of actions carried out under the Act. Title V generally does not impose new, substantive emission control requirements, but provides for a public and governmental review process and requires title V permits to assure compliance with all underlying applicable requirements. *See, e.g., In the Matter of Marcal Paper Mills*, Petition No. II-2006-01 (Order on Petition) (November 30, 2006), at 12. Title V can help promote environmental justice through its underlying public participation requirements and through the requirements for monitoring, compliance certification, reporting and other measures intended to assure compliance with applicable requirements.

EPA has thoroughly reviewed and evaluated the title V objections submitted by the Petitioner, discussed below. EPA acknowledges that the immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity, and thus raises potential environmental justice concerns. Focused attention to the adequacy of monitoring and other compliance assurance provisions is warranted in this context. As explained below, where the Petitioner has demonstrated that the permit fails to assure compliance with applicable requirements, EPA is granting the petition.

US Steel II Order at 5–6.¹⁷

Likewise, here, the EPA acknowledges that the area surrounding the Baton Rouge Refinery is home to a high proportion of low-income residents and people of color and a concentration of industrial activity, and that the Petitions raise potential environmental justice concerns. The EPA has evaluated the Petitions, giving focused attention to the adequacy of monitoring (as well as other concerns raised by the Petitioners). As explained in the following sections, the EPA is granting the Petitions where the Petitioners have demonstrated that the Permits fail to assure compliance with applicable requirements.

Reforming Claim 1: The Petitioners claim that “the Proposed Permit’s emission factor for VOCs cannot ensure compliance with the hourly and annual VOC limits for the highly variable emissions from the reforming unit’s purge vent.”

Petitioners’ Claim: The Petitioners assert that the Reforming Permit does not include sufficient monitoring to assure compliance with VOC emission limits on the Reforming Complex’s purge vent—specifically, a 19.1 tons per year (tpy) limit and a 472.41 maximum pounds per hour

¹⁷ More recently, Executive Orders 13990 and 14008, signed by President Biden on January 20, 2021, and January 27, 2011, respectively, affirm the federal government’s commitment to environmental justice.

(lb/hr) limit.¹⁸ Reforming Petition at 15. According to the Petitioners, Specific Requirement (SR) 157 of the Reforming Permit is the only provision that LDEQ uses to try to ensure compliance with these emission limits. *Id.* at 16.¹⁹ SR 157 states: “The Permittee shall record the number of uncontrolled purge releases each year and calculate actual VOC . . . emissions by multiplying the number of releases by the average pound per regeneration event factors set forth in the permit application (EDMS Doc ID 12022770, p. 240 of 243).” Reforming Permit, SR 157.²⁰ The Petitioners explain that the referenced emission factor, contained in the permit application, is 218.29 pounds of VOC per regeneration event. Reforming Petition at 16. The Petitioners suggest that this emission factor was primarily based on stack testing conducted in October 2011, as well as additional, undisclosed stack testing data and other information. *Id.*

The Petitioners reiterate their assertion that environmental justice concerns in the area “mandate increased, focused attention” to the sufficiency of monitoring designed to assure compliance with these annual and hourly VOC limits on the Reforming Complex’s purge vent. *Id.* at 21.²¹ Ultimately, the Petitioners conclude that the monitoring contained in SR 157 cannot ensure compliance with these VOC limits on the purge vent for the following reasons.

Reliance on 2011 Stack Test

The Petitioners present two arguments as to why it is inappropriate to rely on an emission factor based primarily on a single stack test from 2011. First, the Petitioners assert that a single stack test, especially one conducted long ago, cannot accurately reflect emissions from the purge vent because the vent’s emissions are highly variable and the use of a single stack test does not capture this variability. Reforming Petition at 17–19.²² Specifically, the Petitioners claim the 2011 stack test showed “extremely variable” VOC levels between test runs, including 14.85,

¹⁸ As the Petitioners explain, each of these limits is included in the Reforming Permit’s “Emission Rates for Criteria Pollutants and CO₂e” table. Reforming Petition at 15. The Petitioners observe that the Reforming Permit does not identify the legal authority for these limits but do not object to the Reforming Permit on that basis. The Petitioners further note that nothing in the Reforming Permit designates these limits as “state-only” requirements and, therefore, they are federally enforceable. *Id.* at 15–16 n.46 (citing 40 C.F.R. § 70.6(b)(1)–(2)). In addition to the annual and maximum hourly emission limits, the Reforming Permit also includes an “avg lb/hr” emission rate, which is equivalent to the annual limit divided by 8760 hours per year. *See infra* note 24.

¹⁹ The Petitioners note that this provision was added to the October 2020 Proposed Reforming Permit after the close of the comment period. Reforming Petition at 23. Although the January 2020 Draft Reforming Permit did not specify any emission factors or calculation methods to assure compliance with the purge vent VOC limits, the Petitioners assert that they nonetheless raised most of their claims regarding this calculation methodology in public comments. *Id.* at 25. For the issues not raised in public comments, the Petitioners claim that it was impracticable to do so, and that such objections arose after the public comment period, when LDEQ added the relevant monitoring term to the October 2020 Proposed Reforming Permit. *Id.* at 24–25. The EPA agrees that these claims are not barred by CAA § 505(b)(2).

²⁰ In relevant part, the Proposed and Final Reforming Permits contain identical permit terms.

²¹ Specifically, the Petitioners assert that VOC monitoring is important because: over two thirds of the annual VOC emissions from the purge vent are expected to be HAPs; potential emissions of one HAP (xylene) are at 9.59 tpy, close to the major source threshold for HAPs; fence-line monitoring has shown ambient benzene concentrations close to a 9 microgram per cubic meter corrective action level, and the Petitioners suspect that VOC emissions from the purge vent are contributing to these large spikes; and the area surrounding this refinery has experienced persistent problems complying with NAAQS for ground-level ozone (for which VOC is a precursor). *See id.* at 21–22.

²² These arguments are largely based on a declaration of Dr. Ranajit Sahu, submitted with public comments and attached as Reforming Petition Exhibit 4.

134.24, and 15.02 lb/hr measurements, and similar variability for hourly benzene emissions. *Id.* at 18. The Petitioners assert that even LDEQ concedes that VOC emissions from the purge vent vary significantly. *Id.* at 17–18 (citing Reforming RTC at 25). The Petitioners contend that ExxonMobil’s acknowledgement that the higher values from the second test run are “expected to occur” in only 1 in 40 regenerations show that the source and frequency of such higher emissions is not well-understood. *Id.* at 26–27. Additionally, the Petitioners argue that because the stack test runs lasted less than two hours, and because purge releases can last longer than this, the per-purge emission factor may not accurately reflect emissions from purges of longer durations. *Id.* at 17, 21. The Petitions also argue that the contractor conducting the test made clear that emissions could be different at later dates and under different conditions by noting in the test report that: “The results obtained during testing are only applicable to the date and time noted in this report. Results are not guaranteed for other dates, times, or operational conditions.” *Id.* at 17 (quoting Purge Vent Test Report at 3). Moreover, the Petitioners note that the Permit’s maximum hourly emission limit is significantly higher than the highest rate observed in the 2011 stack test, further evidencing an expectation of variability even greater than that experienced in the 2011 stack test. *See id.* at 19, 27.

Second, the Petitioners argue that the use of 2011 stack testing data to establish the emission factor is inappropriate because the stack test was nearly 10 years old at the time of permit issuance and will be nearly 15 years old before the permit is renewed. *Id.* at 19. The Petitioners argue that there is no way to know whether these old stack test results accurately reflect the current operating conditions of the purge vent. The Petitioners suggest that conditions “very likely have changed” in the catalytic reforming unit and the purge vent over the last decade (such as the replacement of catalysts and an apparent equipment upgrade). *Id.* The Petitioners note that, in response to comments, LDEQ claimed that conditions at the source “have not fundamentally changed such that the emission factors derived from the [2011 information collection request, or ICR] test results are no longer accurate.” Petition at 26 (quoting Reforming RTC at 21). The Petitioners assert that LDEQ does not offer any support for this statement, and moreover that the state cannot possibly support this statement, since no monitoring or testing of the vent has occurred since 2011. *Id.* at 25.²³

Verifying Accuracy of Emission Factors

The Petitioners further challenge the Permit’s use of the 218.29 pounds of VOC per regeneration event emission factor on the ground that it is impossible to verify the accuracy of this emission factor. See Reforming Petition at 20–21. The Petitioners note LDEQ’s explanation that the emission factor was based not only on the 2011 stack test data discussed in the preceding paragraphs, but also on “other sources of information, including historical test data, test data from its other refineries . . . , and recommendations by ExxonMobil’s Research and Engineering (EMRE) Technology Center in order to derive the pound per regeneration event factors” *Id.*

²³ The Petitioners also dismiss LDEQ’s suggestion that if conditions do change, such that the emission factor is no longer representative, ExxonMobil would “be obligated to apply for a permit modification.” *Id.* at 26 (citing Reforming RTC at 21). Petitioners assert that this is not required, and that even if it was, allowing source to unilaterally change an emission factor is inconsistent with the mandate that a title V permit contain monitoring, reporting, and recordkeeping sufficient to assure compliance. *Id.* This concern is explored in greater depth in Reforming Claim 4.

at 20 (quoting Reforming RTC at 20). The Petitioners assert that it is unclear from the permit materials the exact data and scientific assumptions beyond the 2011 stack testing that ExxonMobil used to calculate the emission factor. *Id.* Without knowing the sources of data, the Petitioners claim it is impossible for anyone (including the Petitioners, the EPA, and even LDEQ) to verify both the accuracy of that data and the soundness of using the data to ensure compliance with the relevant VOC limits. *Id.* Moreover, the Petitioners claim it is impossible to verify the accuracy of the emission factor without knowing *how* ExxonMobil used this data to develop the emission factor. *Id.* at 20-21.

Hourly Emission Limits

The Petitioners argue that that a *per-regeneration* VOC emission factor cannot assure compliance with an *hourly* VOC limit. Reforming Petition at 21. The Petitioners claim that neither the Permit nor permit record explain how ExxonMobil should convert the per-regeneration emission factor into an hourly emissions value, including any assumptions regarding the duration of the release. *Id.* Even if the manner of converting the per-regeneration emission factor to an hourly emissions rate were clear, the Petitioners question whether it would provide any useful information about the facility's actual compliance with the hourly limit. *See id.* at 21, 29.

Other Arguments

The Petitioners address additional points LDEQ made in its RTC regarding the sufficiency of monitoring to assure compliance with the VOC emission limits on the purge vent.

The Petitioners reject LDEQ's argument that additional monitoring is not warranted because emissions are not "typically" discharged through the purge vent (but rather routed through the fuel gas system), because no enforceable permit term restricts the proportion of emissions routed to the purge vent. Reforming Petition at 27. The Petitioners illustrate various scenarios under which the purge vent could be used and estimate the magnitude of emissions resulting from such releases. *See id.* at 27-28. Additionally, the Petitioners dispute LDEQ's position that the annual VOC emission limit is conservative by presenting various arguments and hypothetical scenarios under which this limit could be surpassed and thus violated. *See id.* at 28-29.²⁴ In response to LDEQ's suggestion that NESHAP requirements may help ensure compliance with the vent's VOC limits, the Petitioners note that the Permit lacks a connection between any such NESHAP requirements and the VOC limits on the purge vent. *Id.* at 29-30. Moreover, the Petitioners note that the relevant NESHAP requires only a one-time performance test and compliance with an operation, maintenance, and monitoring plan. The Petitioners assert that these NESHAP requirements cannot assure compliance with the VOC emission limits because, among other reasons, the specific contents of the plan are not required to be included in the permit. *See id.* at 30.

The Petitioners conclude that the EPA should require LDEQ to revise the title V permit to require a continuous emissions monitoring system (CEMS) for VOC at the purge vent. *See id.* at 22. The Petitioners acknowledge that more frequent stack testing would provide an improvement

²⁴ The Petitioners concede that the maximum hourly VOC emission limit "may be fairly conservative," but nonetheless discuss the need for additional monitoring for that limit as well. *See id.* at 29.

from the Permit's current requirements, but assert that more frequent stack testing would still not capture the variability discussed in the preceding paragraphs. The Petitioners assert that continuous monitoring is the only way to capture the variability of VOC emissions from the purge vent. *Id.* at 22-23. The Petitioners draw comparison to a permit issued to Jupiter Brownsville, LLC (in Texas) that requires VOC CEMS for an allegedly similar vent. *See id.* at 23.

EPA's Response: For the following reasons, the EPA grants the Petitioners' request for an objection on this claim.

Reforming Claim 1 concerns annual (19.1 tpy) and hourly (472 lb/hr) VOC emission limits that apply to uncontrolled releases through a vent when the refinery's catalytic reformers are purged prior to catalyst regeneration (the "Powerforming 2 Reactor Purge Vent"). These emission limits are included in the Reforming Permit's "Emission Rates for Criteria Pollutants and CO₂e" table, which lists "Avg lb/hr,"²⁵ "Max lb/hr," and "Tons/Year" emission rates for most criteria pollutants emitted by each of the emission units or groups at the Reforming Complex. *See* Final Reforming Permit at pdf page 27 of 58. A similar table is routinely included in all title V permits issued by LDEQ. Whatever LDEQ's motivation and methodology behind establishing these limits, LDEQ does not dispute that these emission rates are federally enforceable limits.²⁶ Title V permits must include sufficient monitoring to assure compliance with all such limits. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c); *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008).

As noted by the Petitioners, the only provision in the Reforming Permit identified as a means of assuring compliance with these limits on the purge vent is SR 157, which states: "The permittee shall record the number of uncontrolled purge releases each year and calculate actual VOC . . . emissions by multiplying the number of releases by the average pound per regeneration event factors set forth in the permit application (EDMS Doc ID 12022770, p. 240 of 243)." Reforming Permit SR 157; *see* Reforming RTC at 20. The relevant emission factor is 218.29 pounds VOC per regeneration event. LDEQ explains that this emission factor was based in part on 2011 stack testing conducted as part of an ICR associated with revisions to the EPA's refinery NESHAP at

²⁵ The "Avg lb/hr" emission rate is equivalent to the annual limit divided by 8760 hours per year. An hourly emissions limit, averaged across an entire year, is effectively no different from an annual limit. As such, these "Avg lb/hr" emission rates do not appear to establish separately enforceable limitations beyond the annual limit, and it is unclear why they are included within this table. By contrast, the "Max lb/hr" emission rates identified in this table do appear to be distinct from, and separately enforceable from, the annual limits. This Order addresses the annual and maximum hourly emission limits.

²⁶ The Petitioners do not raise issues concerning the origin of these limits as a basis for objection to the Reforming Permit. However, as noted by the Petitioners, LDEQ's authority for—and purpose behind—establishing these limits is not entirely clear from the face of the title V permit. The Final Reforming Permit does not identify the legal authority underlying these limits. *See* 40 C.F.R. § 70.6(a)(1)(i). None of these limits appear to be based directly on a federal standard (*e.g.*, a NSPS or NESHAP), any specific SIP requirements, or any particular preconstruction permitting action. Instead, the purge vent's annual 19.1 tpy VOC limit appears to reflect the facility's potential to emit (PTE), as represented in ExxonMobil's permit application, which LDEQ then converted into an enforceable limit. Notably, it appears that this limit was established by multiplying the 218.29 pounds VOC per regeneration emission factor by 175 estimated regenerations per year. Given that the same emission factor is used when demonstrating compliance with this limit (as discussed in the following paragraphs), this limit is effectively a limit on the number of regenerations per year. Regardless of the origin or purpose of the annual and hourly limits, because these limits are not designated as state-only, they are federally enforceable terms of the title V permit. 40 C.F.R. § 70.6(b)(1)–(2).

40 C.F.R. part 63, subpart UUU, which were finalized in 2015. *Id.* However, LDEQ states, “ExxonMobil also considered other sources of information, including historical test data, test data from its other refineries in the United States, and recommendations by ExxonMobil’s Research and Engineering (EMRE) Technology Center in order to derive the pound per regeneration event factors discussed above.” *Id.*

The Petitioners have demonstrated that the Reforming Permit and permit record are unclear as to whether and how this emission factor assures compliance with the annual and hourly VOC emission limits on the purge vent. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1). Among the allegations asserted by the Petitioners is that this per-regeneration emission factor, based primarily on the 2011 ICR stack test data, may not reflect the current operation of the purge vent. As explained in the following paragraphs, that is indeed the case here.

LDEQ asserts that “conditions at the Baton Rouge Refinery have not fundamentally changed such that the emission factors derived from the ICR test results are no longer accurate.” Reforming RTC at 21. However, provided ExxonMobil is complying with currently applicable regulatory requirements, this is not correct. The 2011 ICR stack test (upon which this emission factor appears to be primarily based) reflected a mode of operation that is no longer allowed under the subpart UUU refinery NESHAP, as amended in 2015. More specifically, ExxonMobil’s test data from the 2011 ICR indicated that it had been using active purging techniques to discharge uncontrolled emissions to the atmosphere.²⁷ As the EPA explained in the technology review and preamble to the proposed subpart UUU rule, active purging techniques could result in emissions of HAPs (including VOC HAPs) much higher than expected to be allowed under the refinery rules.²⁸ Accordingly, effective in January 2019, the EPA revised subpart UUU to prohibit uncontrolled active purging; as amended, active purging is now required to be routed to a control device, and only certain types of passive vessel depressurization emissions may be vented uncontrolled to the atmosphere during purging. *See* 40 C.F.R. § 63.1566(a)(4).²⁹

Notwithstanding these changes, it appears that the per-regeneration emission factor listed in ExxonMobil’s permit application (which is incorporated by reference by Reforming Permit SR

²⁷ *See* 79 Fed. Reg. 36880, 36904 (June 30, 2014) (“Source testing information collected from the 2011 Refinery ICR indicates that facilities have interpreted the rule to allow the 5 psig pressure limit exclusion to be used by units using active purging techniques (such as continuous nitrogen purge or vacuum pump on the CRU reactor at low pressures) to discharge to the atmosphere without emission controls. The information collected indicates that HAP emissions from a continuous, active purging technique could result in emissions of HAP from CRU depressurization vents much higher than expected to be allowed under the Refinery MACT 2 requirements, which presumed sequential re-pressurization and purging cycles.”); Technology Review for Catalytic Reforming Units at Petroleum Refineries, Docket ID. No EPA-HQ-OAR-2010-0682, 6–8 (July 2, 2012) (“At the time [the prior refinery NESHAP rules were promulgated], the practice of actively purging the reactor vessel continuously to atmosphere was not considered and such practice appears to undermine the intent of the rule’s provision to allow atmospheric venting while the reactor vessel pressure is less than 5 psig.”). These statements specifically relate to data obtained from ExxonMobil’s Baton Rouge Refinery.

²⁸ *See supra* note 27.

²⁹ The EPA first established this requirement in 2015, and subsequently extended the compliance date for this requirement to January 30, 2019. 80 Fed. Reg. 75178, 75275 (Dec. 1, 2015); 81 Fed. Reg. 45232, 45244 (July 13, 2016).

157) is primarily based on the 2011 ICR test results.³⁰ ExxonMobil's permit application states: "All emission factors have been determined by the facility. The Reformer Purge and Regen vents were tested in 2011 using methods required by the Refinery Information Collection Request."³¹ It is unclear whether, as LDEQ suggests, ExxonMobil established the pound per regeneration emission factor based on consideration of information collected after the 2011 stack test, but to the extent this is the case, there is no indication in the permit record that this took into account the changes in operation of the purge vent required by EPA's refinery rules. In sum, because the Reforming Permit's sole method of demonstrating compliance with the purge vent VOC emission limits relies on an emission factor based on a mode of operation that is no longer allowed, the Permit cannot be said to assure compliance with the relevant VOC emission limits.³²

Additionally, the Petitioners have demonstrated that the Reforming Permit does not assure compliance with the maximum hourly VOC emission limit for the purge vent (472.41 lb/hr) because neither the Permit nor the permit record specifies how a *per-regeneration* event factor can assure compliance with an *hourly* emission limit. As the EPA has previously explained, the frequency of monitoring must bear some relationship to the form of the limit with which it assures compliance. *E.g., In the Matter of Northeast Maryland Waste Disposal Authority, Montgomery Co. Resource Recovery Facility*, Order on Petition No. III-2019-2, 9 (December 11, 2020) (*MCRRF Order*). However, here, nothing in the Reforming Permit or permit record explains how the per-regeneration event factor is to be converted into an hourly emissions value, whether such a conversion would depend on information about the actual duration of each purge event, and whether the duration of purge events would be monitored or recorded.

In summary, the Petitioners have demonstrated that the current emission factor used to assure compliance with the VOC limits on the purge vent does not accurately reflect the refinery's current legally required mode of operation (and accordingly its actual emissions), and that the Reforming Permit fails to explain how the use of this type of emission factor can assure compliance with an hourly VOC limit. Thus, the EPA grants Reforming Claim 1 to the extent that it concerns the technical accuracy and justification for the use of the emission factor, and the connection between this per-regeneration factor and the hourly emission limit.³³

Direction to LDEQ: LDEQ must revise the Reforming Permit to ensure that the monitoring used to demonstrate compliance with the annual and hourly VOC emission limits on the purge vent is sufficient to assure compliance. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c). To the extent that this

³⁰ The 218.29 pounds of VOC per regeneration event emission factor is almost exactly four times the average hourly rate of the three stack test runs from 2011 (14.85 lb/hr, 15.02 lb/hr, and 134.24 lb/hr, with an average of 54.74 lb/hr).

³¹ ExxonMobil, Application for Renewal of the Title V Permit for the Reforming Complex, EDMS Doc ID 12022770, p. 240 of 243 (June 2018).

³² LDEQ suggests: "If conditions were to change such that the average pound per regeneration event factors were no longer representative of actual operations, ExxonMobil would be obligated to apply for a permit modification per LAC 33:III.501." Reforming RTC at 21. The Petitioners contest whether the cited regulation would actually require such a permit modification. Reforming Petition at 26. Regardless, the EPA's Order will require such a permit modification.

³³ In response to this objection, LDEQ will be required to revise the Reforming Permit to include monitoring sufficient to assure compliance with the VOC limits on the purge vent, and to explain the basis for this monitoring. Having not yet reviewed those changes, it would be premature for the EPA to judge whether they will be sufficient. Thus, the EPA need not reach certain aspects of the Petitioners' claim, including, for example, whether it is necessary to install a VOC CEMS.

monitoring relies on an emission factor,³⁴ LDEQ must ensure that this emission factor is representative, which it may do by demonstrating that it is technically accurate and reflects current operations at ExxonMobil’s refinery in light of the regulatory changes that have occurred since the 2011 ICR stack testing—specifically, the requirements at 40 C.F.R. § 63.1566(a)(4). LDEQ may determine that it is necessary to conduct additional stack testing to accurately establish this emission factor. In any case, LDEQ must include in the permit record an explanation of the basis for any emission factors used to assure compliance. 40 C.F.R. § 70.7(a)(5). Additionally, LDEQ must revise the Reforming Permit to specify some type of periodic monitoring or recordkeeping or calculation methodology sufficient to assure compliance with the hourly limit it has established for the purge vent. LDEQ must also include in the permit record an explanation of the basis for this decision.

Reforming Claim 2: The Petitioners claim that “the Proposed Permit’s emission factor for VOCs cannot account for the variability of emissions and processes at the reforming unit’s regenerator vent.”

Petitioners’ Claim: The Petitioners assert that the Reforming Permit does not include sufficient monitoring to assure compliance with VOC emission limits on the Reforming Complex’s regenerator vent—specifically, a 13.0 maximum lb/hr limit, and a 11.6 tpy limit.³⁵ Reforming Petition at 31. According to the Petitioners, SR 173 of the Reforming Permit is the only provision that assures compliance with these emission limits. *Id.*³⁶ This permit term states: “The Permittee shall record the number of regeneration events each year and calculate actual VOC . . . emissions by multiplying the number of events by the average pound per regeneration event factors set forth in the permit application (EDMS Doc ID 12022770, p. 237 of 243).” Reforming Permit, SR 173. The Petitioners explain that the referenced emission factor, contained in the permit application, is 132.54 pounds of VOC per regeneration event. Reforming Petition at 31. As with the purge vent emission factor in Reforming Claim 1, the Petitioners suggest that this emission factor was primarily based on stack testing conducted in October 2011, as well as additional, undisclosed stack testing data and other information. *Id.* at 31–32.

³⁴ It is not clear whether LDEQ plans to rely on other preexisting requirements (such as those in 40 C.F.R. part 63, subpart UUU) to demonstrate compliance with these VOC emission limits. *See* Reforming RTC at 20 (discussing subpart UUU requirements, including an operation, maintenance, and monitoring plan related to purging); *see also* 40 C.F.R. § 63.1574(f). To the extent LDEQ relies on such requirements, the Reforming Permit must clearly state the connection between said requirements and the emission limits at issue, and the permit record must explain how these requirements assure compliance with the VOC emission limits. *E.g., In the Matter of Owens-Brockway Glass Container Inc.*, Order on Petition No. X-2020-2 at 14–15 (May 10, 2021).

³⁵ *See supra* note 18. Note that in addition to the annual and maximum hourly emission limits, the Reforming Permit also includes an “avg lb/hr” emission rate, which is equivalent to the annual limit divided by 8760 hours per year. *See supra* note 25.

³⁶ The Petitioners note that this provision was added to the October 2020 Proposed Reforming Permit after the close of the comment period. Reforming Petition at 39. Although the January 2020 Draft Reforming Permit did not specify any emission factors or calculation methods to assure compliance with the reforming vent VOC limits, the Petitioners assert that they nonetheless raised most of their claims regarding this calculation methodology in public comments. *Id.* For the issues not raised in public comments, the Petitioners claim that it was impracticable to do so, and that such objections arose after the public comment period, when LDEQ added the relevant monitoring term to the October 2020 Proposed Reforming Permit. *Id.* at 40–41. The EPA agrees that these claims are not barred by CAA § 505(b)(2).

The Petitioners reiterate their assertion that environmental justice concerns in the area “mandate increased, focused attention” to the sufficiency of monitoring designed to assure compliance with the annual and hourly VOC limits. *See id.* at 37–38. Ultimately, the Petitioners conclude that the monitoring contained in SR 173 cannot ensure compliance with the VOC limits on the purge vent for the following reasons (which generally parallel the arguments presented in Reforming Claim 1).

Reliance on 2011 Stack Test

Similar to Reforming Claim 1, the Petitioners first assert that it is inappropriate to rely on an emission factor based primarily on a single stack test from 2011 because a single stack test cannot adequately capture the variability of emissions from the regenerator vent. The Petitioners assert that the regeneration process has multiple stages with varying durations and emission rates. Reforming Petition at 32–33. Because the 2011 stack test only captured three or four 1-hour snapshots of emissions over the span of four days, the Petitioners contend that there is no assurance that it accurately reflects the emissions from this “variable, complicated, and multi-step nature of the regeneration process.” *Id.* at 33. The Petitioners assert variability in overall VOC emission rates across test runs during coke burn purge events, with VOC emissions varying from 10.7 ppm to 6.46 ppm VOC (a 65 percent difference). *Id.* at 34, 43. Moreover, the Petitioners assert that the 2011 stack test showed “highly variable” results for at least two VOC HAPs (xylene and ethylbenzene). *Id.* The Petitioners note that LDEQ acknowledges this variability with respect to xylene and challenge the state’s arguments with respect to ethylbenzene and other VOC HAPs emitted in lesser amounts. *Id.* at 43, 44 (citing Reforming RTC at 25). Moreover, the Petitioners suggest that the Reforming Permit’s maximum hourly emission limit is higher than the highest rate observed in the 2011 stack test, and thus reflects an expectation of variability from the regenerator vent. *Id.* at 35.

The Petitioners also assert that the use of stack testing data to establish the emission factor is inappropriate because the stack test was nearly 10 years old at the time of permit issuance, and will be nearly 15 years old before the permit is renewed. *Id.* For support, the Petitioners reiterate their arguments from Reforming Claim 1, along with their rebuttals to LDEQ’s contention that conditions at the facility have not fundamentally changed since that stack test. *See id.* at 35, 41–42, 44.

Verifying Accuracy of Emission Factors

As with Reforming Claim 1, the Petitioners claim that the use of the 132.54 pounds of VOC per regeneration event emission factor is inappropriate because the accuracy of this emission factor cannot be verified. Reforming Petition at 36. For support, the Petitioners restate their arguments from Reforming Claim 1. *See id.*

Hourly Emission Limits

As with Reforming Claim 1, the Petitioners argue that a per-regeneration emission factor cannot assure compliance with an hourly VOC limit. Reforming Petition at 36–37. For support, the

Petitioners restate their arguments from Reforming Claim 1. *See id.* The Petitioners also assert that LDEQ’s RTC does not address this issue. *Id.* at 44.

Other Arguments

The Petitioners address other points raised in LDEQ’s RTC regarding the sufficiency of monitoring to assure compliance with the VOC emission limits on the regenerator vent.

Similar to Reforming Claim 1, the Petitioners reject LDEQ’s argument that additional monitoring is not warranted because emissions are routed to the purge vent during certain stages of the regeneration cycle, because the regenerator vent is not emitting at the highest observed rates at all times, and because the emission limits are allegedly conservative. *See* Reforming Petition at 42 (citing Reforming RTC at 25). The Petitioners present a hypothetical scenario under which the regenerator vent could allegedly operate at its maximum rate and violate its annual emission limit. *See id.* at 42–43. The Petitioners challenge LDEQ’s suggestion that potential VOC emissions from the regenerator vent are “only” 11.6 tpy, arguing that the requirement to include sufficient monitoring applies no matter how small or large the relevant limit is. *Id.* at 43. The Petitioners address LDEQ’s argument that gasses do not continuously discharge from the regenerator vent, arguing that they nonetheless are discharged for large amounts of time. *Id.* at 44. The Petitioners also address LDEQ’s arguments concerning various NESHAP requirements, reiterating their arguments from Reforming Claim 1. *See id.* at 45.

The Petitioners conclude that the EPA should require LDEQ to revise the title V permit to require VOC CEMS for the regenerator vent, restating their arguments from Reforming Claim 1. *See id.* at 38–39.

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

Reforming Claim 2 concerns annual (11.6 tpy) and hourly (13.0 lb/hr) VOC emission limits that apply to emissions during the coke burn and coke burn purge cycles of the catalyst regeneration process at the Reforming Complex (described as emissions from the “regenerator vent”).³⁷ These limits appear to have been established in a similar manner to those discussed in Reforming Claim 1, and similarly must be supported by monitoring sufficient to assure compliance.³⁸

Similar to Reforming Claim 1, the only provision in the Reforming Permit identified as a means of assuring compliance with these limits on the regenerator vent is SR 173, which states: “The permittee shall record the number of uncontrolled purge releases each year and calculate actual VOC . . . emissions by multiplying the number of events by the average pound per regeneration event factors set forth in the permit application (EDMS Doc ID 12022770, p. 237 of 243).”

³⁷ Emissions from these two distinct cycles are collectively regulated under the same emissions limit. Under the EPA’s regulations, emissions during coke burn are required to be controlled, whereas emissions during coke burn purge are not. 40 C.F.R. § 63.1567(a)(1).

³⁸ *See supra* note 26 and accompanying text.

Reforming Permit SR 173; *see* Reforming RTC at 25. The relevant emission factor is 132.54 pounds VOC per regeneration event.

The Petitioners have demonstrated that the permit record is unclear regarding the accuracy of this emissions factor because it is impossible to tell how this emission factor was established. LDEQ explains that this emission factor was based primarily on 2011 stack testing conducted as part of the ICR discussed in Reforming Claim 1. *See* Reforming RTC at 25. Notably, the emission factor (and the accompanying emission limit) includes emissions from two conceptually distinct processes (coke burn and coke burn purge), each of which includes multiple operational stages with differing durations and emissions profiles. After acknowledging these complexities, LDEQ states that “the pound per regeneration event factors cannot be derived solely from the ICR test results,” suggesting that additional information was used to develop the emission factor. However, LDEQ provides no explanation whatsoever of what additional information was considered or how the emission factor was developed for these complex processes. *See id.* Without more information, it is impossible to know whether this emission factor is representative (*e.g.*, technically accurate) and thus appropriately employed as a means of demonstrating compliance.³⁹

Additionally, and similar to Reforming Claim 1, the Petitioners have demonstrated that the Reforming Permit does not assure compliance with the maximum hourly VOC emission limit for the regenerator vent because neither the Permit nor the permit record specifies how a *per-regeneration* event factor can assure compliance with an *hourly* emission limit. Nowhere does the Permit or permit record explain how the per-regeneration event factor is to be converted into an hourly emissions value, whether such a conversion would depend on information about the actual duration of each coke burn or coke burn purge cycle, and/or whether the duration of these events would be monitored or recorded. *E.g.*, *MCRRF Order* at 9. Thus, the EPA grants Reforming Claim 2 to the extent that it concerns the unclear basis for establishing emission factor, and the connection between this per-regeneration factor and the hourly emission limit.⁴⁰

Direction to LDEQ: LDEQ must revise the Reforming Permit to ensure that the monitoring used to demonstrate compliance with the annual and hourly VOC emission limits on the reforming vent (coke burn and coke burn purge cycles) is sufficient to assure compliance. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c). To the extent that this monitoring relies on an emission factor, LDEQ must ensure that this emission factor is representative, which it may do by demonstrating that it is technically accurate. LDEQ must include in the permit record an explanation of the basis for any emission factors used to assure compliance. 40 C.F.R. § 70.7(a)(5). Additionally, LDEQ must revise the Reforming Permit to specify some type of periodic monitoring or recordkeeping or calculation methodology sufficient to assure compliance with the hourly limit it has established for the purge vent. LDEQ must also include in the permit record an explanation of the basis for this decision.

³⁹ Unlike the purge vent discussed in Reforming Claim 1, the EPA has no reason to question—and more importantly, the Petitioners have provided no compelling reason to question—LDEQ’s assertion that conditions during the Reforming Complex’s coke burn and coke burn purge cycles have not fundamentally changed in a manner that would undermine the permit’s current emission factor. However, the fact remains that LDEQ has not explained the basis for this factor.

⁴⁰ As with Reforming Claim 1, it would be premature for the EPA to address certain other aspects of the Petitioners’ claim until LDEQ revises the Reforming Permit to address these issues.

Reforming Claim 3: The Petitioners claim that “in violation of 40 C.F.R. § 70.7(a)(5), LDEQ failed to provide a reasoned explanation for why the Proposed Permit ensures compliance with the VOC limits for the purge and regenerator vents.”

Petitioners’ Claim: The Petitioners claim that LDEQ’s failure to adequately explain the basis for the monitoring conditions discussed in Reforming Claims 1 and 2 presents an independent basis for EPA’s objection. The Petitioners observe that 40 C.F.R. § 70.7(a)(5) requires that permitting authorities “provide a statement that sets forth the legal and factual basis for the draft permit conditions.” Reforming Petition at 45–46. The Petitioners also note that EPA has stated: “In addition to including permit terms sufficient to satisfy EPA’s part 70 monitoring requirements, permitting authorities must include a rationale for the monitoring requirements selected that is clear and documented in the permit record.” *Id.* at 46 (quoting *In the Matter of Mettiki Coal, LLC*, Order on Petition No. III-2013-1 (September 26, 2014) (“*Mettiki Order*”). The Petitioners assert that LDEQ violated these requirements because (1) LDEQ’s statement of basis accompanying the January 2020 Draft Reforming Permit did not discuss the monitoring provisions that assure compliance with the relevant VOC limits, and because (2) LDEQ’s RTC “does not provide a reasoned explanation for” the sufficiency of these conditions. *Id.* at 45. Additionally, the Petitioners allege that LDEQ violated 40 C.F.R. § 70.7(h)(6) by not directly responding to public comments addressing the lack of a reasoned explanation in the statement of basis. *Id.* at 46.

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

For the reasons explained in the EPA’s response to Reforming Claims 1 and 2, the permit record, including LDEQ’s statement of basis and RTC, does not contain sufficient information to justify the sufficiency of monitoring used to assure compliance with the VOC emission limits on the Reforming Complex’s purge vent and regenerator vent. LDEQ included no description of the relevant monitoring in the statement of basis accompanying the January 2020 Draft Reforming Permit (this is unsurprising, given that the draft permit did not specify any such monitoring) and failed to sufficiently remedy this defect in the RTC accompanying the October 2020 Proposed Reforming Permit. 40 C.F.R. § 70.7(a)(5). LDEQ’s RTC includes an explanation for the monitoring added to the Reforming Permit and generally responds to the substantive concerns raised in public comments. However, this response does not sufficiently explain the basis for the selected monitoring, as explained with respect to Reforming Claims 1 and 2.

Direction to LDEQ: As required by 40 C.F.R. § 70.7(a)(5), LDEQ must include within the permit record an explanation justifying the monitoring included in the Reforming Permit. The EPA’s specific expectations are explained in more detail in our direction to LDEQ stated above for Reforming Claims 1 and 2.

Reforming Claim 4: The Petitioners claim that “the Proposed Permit impermissibly allows Exxon to unilaterally revise monitoring requirements and seek approval after-the-fact via administrative permit amendment.”

Petitioners’ Claim: The Petitioners claim that a permit term giving ExxonMobil the ability to revise the permit’s emission calculation method is impermissible because (1) it allows unilateral off-permit changes to monitoring without any approval process and (2) the eventual process for approval via administrative amendment is improper. *See* Reforming Petition at 46–49.

The Petitioners note that LDEQ inserted SR 246 into the October 2020 Proposed Reforming Permit after the public comment period. Petition at 49. This provision states:

In the event the permittee determines that a method of calculating emissions is more appropriate or more accurate than a method prescribed herein, the permittee shall employ the more appropriate or more accurate method for purposes of determining compliance with the emission limitations of this permit and for reporting actual emissions in accordance with LAC 33:III.919 and LAC 33:III.5107.A. The permittee shall request an administrative amendment to incorporate the more appropriate or more accurate method into the permit no later than 30 days after the submittal of the reports required by LAC 33:III.919 and LAC 33:III.5107.A.

Reforming Permit SR 246.

The Petitioners allege two flaws with this permit term: First, it allows ExxonMobil to unilaterally revise the permit’s calculation methods whenever the facility alone determines that a new method is more appropriate or more accurate. ExxonMobil would be able to operate under a calculation methodology not specified in its permit for roughly a year after such a change without going through any approval process. *See id.* at 47.⁴¹

The Petitioners assert that, under EPA’s part 70 regulations, “any change to Exxon’s emission calculation methods from the permit would be a significant change to monitoring requirements that would require a significant permit modification.” *Id.* at 47, 48–49 (citing 40 C.F.R. § 70.7(e)(4)(i)). The Petitioners note that LDEQ’s EPA-approved part 70 regulations provide the same. *Id.* (citing LAC 33:III.527.A.2.b-c). Processing these changes through a significant permit modification would entail public notice and comment, review by affected states and the EPA, and LDEQ approval prior to implementing any such changes. *Id.* at 47, 48 (citing 40 C.F.R. § 70.7(a), (e)(4)(ii); LAC 33:III.519.C-1-2, 527.B-3-5, 531.A.1.c, A.3.c, B.1, 533.C.1).

The Petitioners assert that even if changes to calculation methodologies did not constitute a “significant change to monitoring requirements” necessitating revision by significant modification procedures, they would at least constitute a non-significant change to monitoring and, as such, could only be approved through minor permit modification procedures. *Id.* at 47 (citing 40 C.F.R. § 70.7(e)(2)(i)(A)(2), LAC 33:III.525.A.2.c.). Processing these changes under EPA’s rules for minor modifications would at least require the submission of a permit

⁴¹ The Petitioners assert that the lack of process accompanying these revisions is especially problematic given the environmental justice concerns articulated by the Petitioners. *Id.* at 48.

application and review by EPA (with an opportunity for public petitions). *Id.* at 47–48 (citing 40 C.F.R. § 70.7(a)(1)(ii), (e)(2)(iii)-(iv), (h)). Moreover, under LDEQ’s rules, such changes could not be implemented until after review by EPA and approval by LDEQ. *Id.* at 47 (citing LAC 33:III.525.B).

Second, the Petitioners claim that this provision impermissibly allows ExxonMobil to revise its permit using the administrative amendment process, rather than following the significant modification or minor modification processes that the Petitioners assert should be required. *See id.* at 47–49. The Petitioners assert that changes to calculation methods authorized by SR 246 cannot be effectuated via administrative amendment because these changes do not fall within the limited circumstances identified in 40 C.F.R. § 70.7(d)(1). *Id.* at 48. The Petitioners acknowledge that some changes to calculation methods could conceivably involve adding “more frequent monitoring or reporting” (which *would* qualify for an administrative amendment), but assert that SR 246 is not limited to such changes, and could extend to changes that do not involve more frequent monitoring. *Id.* Additionally, the Petitioners note that LDEQ’s regulations (unlike the EPA’s) do not allow administrative amendments for changes to require more frequent monitoring or reporting. *Id.* at 49 (citing LAC 33:III.521.A). Thus, the Petitioners contend that SR 246 is contrary to both the EPA’s and LDEQ’s regulations.

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

The Petitioners have demonstrated that Reforming Permit SR 246 is deficient for two reasons: First, this permit term impermissibly allows ExxonMobil to change its emissions calculation methodology for a certain period of time⁴² without following the required procedures to revise its title V permit. Revising an emission calculation methodology is a fundamental change to the overall system of monitoring and recordkeeping used to assure compliance with permit limits. This kind of change to monitoring simply cannot be undertaken by a source without first applying for, and in some cases finalizing, a permit revision (*i.e.*, it does not qualify for an off-permit change).⁴³ Put another way, to revise the monitoring specified in a permit, one must first revise the permit (using the procedures addressed in the following paragraph). Additionally, as the Petitioners note, allowing this type of unilateral off-permit change prevents the public and the EPA from evaluating whether the chosen emission calculation methodology is sufficient to assure compliance with all applicable requirements. This effectively prevents both the public and the EPA from exercising the participatory and oversight roles provided by the CAA. *See* 42 U.S.C. §§ 7661a(b)(6), 7661d(a), (b); *see also* 40 C.F.R. §§ 70.7(h), 70.8(a), (c), (d). Moreover, it is LDEQ’s responsibility, as the title V permitting authority, to ensure that the title V permit “set[s] forth,” “include[s],” and “contain[s]” monitoring sufficient to assure compliance with all applicable requirements and permit terms. 42 U.S.C. § 7661c(c); *see id.* § 7661c(a); 40 C.F.R.

⁴² More specifically, ExxonMobil would not be required to apply to revise the Permit’s calculation methods until 30 days after it submits its annual emissions inventory report. Reforming Permit SR 246.

⁴³ Sources may be allowed to make certain types of changes without revising a permit; these are generally called “section 502(b)(10) changes.” *See* 42 U.S.C. 7661a(b)(10) (allowing certain types of changes to occur without a permit revision); 40 C.F.R. § 70.4(b)(12) (same); 40 C.F.R. § 70.2 (defining acceptable section 502(b)(10) changes to *exclude* changes to monitoring, recordkeeping, reporting, or compliance certification requirements); LAC 33:III.507.G.2.c (allowing off-permit changes, but only those that “will not contravene any testing, monitoring, recordkeeping, reporting, or compliance certification requirements of the existing permit.”).

§ 70.6(a), (a)(3), (c); LAC 33:III.501.C.6, 507.B.2.⁴⁴ A permit term that allows a permittee to stop following a monitoring or emissions calculation methodology specified by the permit, in favor of a methodology not specified in (or specifically contemplated by) the permit, cannot be said to set forth, include, or contain the required monitoring.

Second, the Petitioners have demonstrated that SR 246 provision impermissibly allows ExxonMobil to (eventually) revise an emission calculation methodology in its permit using administrative amendment procedures. Under the EPA’s regulations, certain types of changes to monitoring—specifically, changes that result in “more frequent monitoring or reporting”—can be processed via administrative amendment. 40 C.F.R. § 70.7(d)(1)(iii). LDEQ’s EPA-approved regulations do not provide for the use of administrative amendments in even these circumstances. *See* LAC 33:III.521.A. In any case, even assuming there are some circumstances where changes to an emission calculation methodology could be processed through an administrative amendment, SR 246 is not in any way limited to such circumstances and seems to allow *all* changes to emission calculation methodologies that the permittee “determines” to be “appropriate” to be processed via administrative amendment. This contravenes both the EPA’s and LDEQ’s regulations. Under the EPA’s rules, at least some changes to emission calculation methodologies (and under LDEQ’s rules, apparently all such changes) must be processed using either minor modification or significant modification procedures.⁴⁵ *E.g.*, 40 C.F.R. § 70.7(e)(2)(i)(A), (e)(4)(i)); LAC 33:III.525.A.2.c, 527.A.2.b–c. Because the Reforming Permit purports to allow ExxonMobil to contravene these procedures, the EPA must object.

Direction to LDEQ: LDEQ must revise the Reforming Permit to ensure that any changes to an emission calculation methodology are not implemented by the facility prior to satisfying any applicable procedural requirements, and that any such changes will be processed using the appropriate permit revision procedures. (The EPA expects that changes to an emission calculation methodology would require either minor or significant modification procedures under EPA-approved LDEQ rules.) LDEQ could address this objection by either deleting SR 246 or amending SR 246 to address the objectionable portions of this permit term.

⁴⁴ 42 U.S.C. § 7661c(a) (“Each permit issued under [title V of the CAA] shall *include* . . . such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.”), 7661c(c) (“Each permit issued under [title V of the CAA] shall *set forth* . . . monitoring and reporting requirements to assure compliance with the permit terms and conditions.”); 40 C.F.R. § 70.6(a) (“Each permit issued under this part shall *include* . . .”), 70.6(a)(3)(i) (“Each permit shall *contain* the following requirements with respect to monitoring:”); 70.6(c) (“All part 70 permits shall *contain* the following with respect to compliance: . . . testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.”); LAC 33:III.501.C.6 (“The permitting authority shall incorporate into each permit sufficient terms and conditions to ensure compliance with all state and federally applicable air quality requirements and standards at the source and such other terms and conditions as determined by the permitting authority to be reasonable and necessary.”) (all emphasis added).

⁴⁵ The EPA does not necessarily agree that all changes to an emission calculation methodology would require a significant modification, as the Petitioners suggest. Not all changes to a calculation methodology would necessarily involve a significant change to monitoring requirements. 40 C.F.R. § 70.7(e)(2)(i)(a)(2), (e)(4)(i).

Reforming Claim 5: The Petitioners claim that “the Draft Permit fails to ensure compliance with 40 C.F.R. part 68 requirements.”

Petitioners’ Claim: The Petitioners note that the facility is subject to the EPA’s risk management program, found in 40 C.F.R. part 68. Reforming Petition at 50. The Petitioners assert that the Reforming Permit unlawfully relaxes the applicable requirements of this program because it provides that ExxonMobil shall comply with the provisions in part 68, “except as specified in LAC 33:III.5901.” *Id.* (quoting Reforming Permit SR 258). The Petitioners claim that the cited state regulation relaxes the applicable part 68 requirements in two ways: “First, it amends compliance deadlines from 40 C.F.R. §§ 68.10(a)(2) and 68.190(b)(2) by adding that such deadlines are ‘[t]hree years after the date on which a new regulated substance is first listed by EPA under 40 CFR 68.130, provided that the Department shall have adopted the addition of the new substance to 40 CFR 68.130 by three years after the date of the new EPA listing.’” *Id.* (quoting LAC 33:III.5901.C.3) (emphasis in petition). Second, it confines the information that must be made publicly available to materials that are not declared confidential under Louisiana law. *Id.* (citing LAC 33:III.5901.C.4; 40 C.F.R. § 68.210(a)). The Petitioners assert that these qualifying provisions result in the Reforming Permit not assuring compliance with the full breadth of the EPA’s part 68 requirements, and that these qualifications must be removed. *Id.* at 50–51.⁴⁶ Additionally, the Petitioners assert that LDEQ did not respond to public comments raising this particular issue, in violation of 40 C.F.R. § 70.7(h)(6). *Id.* at 51–52.

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

Permitting authorities are required to respond to all significant comments. 40 C.F.R. §§ 70.7(h)(6), 70.8(a)(1)(i)–(ii). Although LDEQ acknowledged the Petitioners’ comment regarding SR 258 within the Reforming RTC (repeating the arguments presented in this petition claim), - LDEQ offered no response. *See* Reforming RTC at 27–28. Because LDEQ did not respond to this significant comment on an alleged relaxation of an applicable requirement by a permit provision, the EPA grants this claim. *See* 40 C.F.R. § 70.8(c)(3).

Direction to LDEQ: LDEQ must respond to public comments addressing whether the qualifying language in SR 258 and LAC 33:III.5901.C impermissibly relaxes the applicable requirements of part 68. In so doing, LDEQ should consider whether to remove this qualifying language, or explain how the added qualifications do not relax or otherwise affect compliance with the federal statutory and regulatory requirements.

Utilities Claim 1: The Petitioners claim that “the Proposed Permit’s monitoring and emission calculation requirements cannot ensure compliance with the hourly and annual VOC limits for the refinery’s wastewater treatment system.”

Petitioners’ Claim: The Petitioners claim that the Utilities Permit does not include sufficient monitoring or emission calculation requirements to assure compliance with annual VOC limits for the Utility Unit’s wastewater treatment system. *See* Utilities Petition at 18. The Petitioners

⁴⁶ The Petitioners stress the importance of these part 68 requirements, citing fires, explosions, and other problems that have occurred at the Baton Rouge Refinery in prior years. *See id.* at 51.

explain that the wastewater treatment system includes wastewater collected throughout the refinery (WCLA-OFFSITES) as well as onsite wastewater processing units within the Utilities Unit area (WCLA-ONSITES). *Id.* at 18. VOC emissions from OFFSITES are limited to 103.47 tpy; VOC emissions from ONSITES are limited to 321.0 tpy. *Id.*⁴⁷

The Petitioners claim that SR 1 is the only provision that the Utilities Permit identifies to assure compliance with the annual VOC limit for OFFSITES. *Id.* at 18, 20. This permit term states: “The permittee shall calculate emissions using TOXCHEM (or other model approved by EPA and/or LDEQ) configured to reflect the current design and operation of the wastewater treatment system. Inputs of organic and inorganic constituents shall be adjusted as necessary based on [Louisiana Pollutant Discharge Elimination System] LPDES sampling results.” Utilities Permit, SR 1.

The Petitioners claim that SR 2 is the only provision that the Utilities Permit identifies to assure compliance with the annual VOC limits for ONSITES. Utilities Petition at 18. This permit term similarly states: “The permittee shall calculate emissions using TOXCHEM (or other model approved by EPA and/or LDEQ) configured to reflect the current design and operation of the treatment system.” Utilities Permit, SR 2.⁴⁸ However, unlike SR 1, SR 2 further requires that these calculations be based on a number of site-specific parameters that are required to be monitored either continuously or monthly. *See id.*; *see also* Utilities Petition at 19 (quoting SR 2).⁴⁹

The Petitioners reiterate their assertion that environmental justice concerns in the area “mandate increased, focused attention” to the sufficiency of monitoring designed to assure compliance with the VOC limits on wastewater treatment. *See id.* at 28–29, 31. Ultimately, the Petitioners conclude that the monitoring contained in SR 1 and SR 2 cannot ensure compliance with the VOC limits for five reasons, described in the following paragraphs.

⁴⁷ As with the emission limits discussed in Reforming Claims 1 and 2, the Petitioners explain that each of these limits is included in the Utilities Permit’s “Emission Rates for Criteria Pollutants and CO₂e” table. *Id.* The Petitioners observe that the Utilities Permit does not identify the legal authority for these limits but do not object to the Utilities Permit on that basis. The Petitioners further note that nothing in the Utilities Permit designates these limits as “state-only” requirements and, therefore, they are federally enforceable. *Id.* n.60 (citing 40 C.F.R. § 70.6(b)(1)–(2)). There are no maximum hourly emission limits on VOC emissions from ONSITES or OFFSITES expressed in the “Emission Rates for Criteria Pollutants and CO₂e” table. However, in addition to the annual emission limits, the Utilities Permit also includes “avg lb/hr” emission rates, which are equivalent to the annual limits divided by 8760 hours per year. Although the Utilities Petition references an “hourly” emissions limit in passing, it does not offer any specific challenges relating to these avg lb/hr emission rates. *See supra* note 25.

⁴⁸ In relevant part, the Proposed and Final Utilities Permits contain identical permit terms.

⁴⁹ The Petitioners note that SR 1 and SR 2 were added to the October 2020 Proposed Utilities Permit after the close of the comment period. Utilities Petition at 31. Although the December 2019 Draft Utilities Permit did not specify any emission factors or calculation methods to assure compliance with the purge vent VOC limits, the Petitioners assert that they nonetheless raised most of their claims regarding this calculation methodology in public comments. *Id.* at 31. For the issues not raised in public comments, the Petitioners claim that it was impracticable to do so, and that such objections arose after the public comment period, when LDEQ added the relevant monitoring terms to the October 2020 Proposed Utilities Permit. *Id.* at 32–33. The EPA agrees that these claims are not barred by CAA § 505(b)(2).

The Petitioners' arguments within Utilities Claim 1 frequently cite the EPA's 2015 *Emissions Estimation Protocol for Petroleum Refineries*.⁵⁰ The Petitioners' arguments are also largely based on a declaration of Dr. Ranajit Sahu, submitted with public comments and attached as Utilities Petition Exhibit 6.

Site-specific Biodegradation Rates

First, the Petitioners claim that the Utilities Permit does not, but should, require ExxonMobil to use site-specific biodegradation rates when determining VOC emissions from ONSITES. Utilities Petition at 20–24, 33–36. The Petitioners stress the importance of using site-specific variables in estimating wastewater treatment emissions. *See id.* at 21–23. Specifically, the Petitioners contend that site-specific biodegradation rates are necessary to ensure accurate calculations of VOC emissions from biological treatment units like those that comprise ONSITES. *Id.* at 21. The Petitioners assert this is necessary because “factors that can have the most dramatic impact on air emissions from a biological treatment unit are the ones impacting biodegradation,” particularly considering the magnitude⁵¹ and variability⁵² of VOC and HAP emissions from the biological treatment units. *Id.* at 21; *see id.* at 22–24.

The Petitioners address portions of LDEQ's RTC relating to biodegradation rates. *See id.* at 33–36. The Petitioners argue: “to the extent LDEQ is suggesting that the proposed permit requires Exxon to calculate—or that TOXCHEM necessarily calculates—site-specific biodegradation rates, this is wrong.” *Id.* at 35. Specifically, the Petitioners state that neither the Permit nor LDEQ's RTC explain whether ExxonMobil must use TOXCHEM—or some other methodology listed in 40 C.F.R. part 63, Appx C—for purposes of calculating the liquid-phase mass transfer coefficient (a variable related to biodegradation rates). *Id.* at 34. Moreover, the Petitioners assert that this coefficient is but one of multiple calculations and inputs necessary to calculate biodegradation rates. *Id.* at 34–35.

The Petitioners acknowledge that the Utilities Permit requires the monitoring of some variables that can affect biodegradation rates (including mixed liquor suspended solids and concentration of return activated sludge, as well as status of aerator blowers and tank levels), but assert that additional inputs must be monitored (including biomass concentration levels, biomass types/composition, and the degree of mixing). *See id.* at 22–23, 30. Petitioners claim that EPA should require LDEQ to revise the title V permit to mandate the use of site-specific biodegradation rates (updated at least quarterly) and to include a protocol for calculating these biodegradation rates, subject to public comment and LDEQ approval. *Id.* at 30. Moreover, the

⁵⁰ *Emissions Estimation Protocol for Petroleum Refineries v.3* (April 2015), available at <https://regulations.gov>, Docket ID No. EPA-HQ-OAR-2018-0833-0025, or at <https://www3.epa.gov/ttn/chief/efpac/protocol/Protocol%20Report%202015.pdf>.

⁵¹ The Petitioners assert that the biological treatment units are the greatest source of VOC at ONSITES and emit especially large quantities of hazardous VOCs. *Id.* at 21–22

⁵² The Petitioners note that LDEQ and ExxonMobil both acknowledges the variability of emissions from the wastewater treatment system. *Id.* at 23 (citing Utilities RTC at 10; ExxonMobil, Application for Renewal of the Title V Permit for Utilities, EDMS Doc ID 11445060, p. 149–150 of 191 (December 2018)). Moreover, the Petitioners discuss individual state-only HAP limits estimated using conservative emission values to account for variability. The Petitioners surmise that the annual VOC limit for ONSITES was similarly calculated using a contingency factor in order to account for this variability. *See RTC.* at 23–24.

Petitioners assert that the facility's calculation protocol would need to address certain concerns previously identified by the EPA when using TOXCHEM and 40 C.F.R. part 60, Appendix C to calculate biodegradation rates. *Id.* at 35.

Validation

Second, the Petitioners claim that the Utilities Permit cannot assure compliance with the VOC limits at issue because it does not require validation to ensure that calculations from TOXCHEM (or any other model ExxonMobil may choose to use) are accurate. Utilities Petition at 24. The Petitioners assert that the EPA's *Emissions Estimations Protocol for Petroleum Refineries* "makes clear that validation [of TOXCHEM] is *necessary* to accurately calculate emissions from wastewater treatment. *Id.* at 24 (emphasis added); *see id.* at 36. The Petitioners further claim that validation is particularly necessary here because TOXCHEM employs theoretical or empirical simplifications of complex wastewater treatment processes, because of the high variability of VOC emissions, and for other reasons identified within other portions of Utilities Claim 1. *Id.* at 24–25, 36. The Petitioners reject LDEQ's response in the RTC that validation is not necessary because TOXCHEM is an EPA-accepted model utilizing site-specific information. *Id.* at 36 (citing Utilities RTC at 14). The Petitioners suggest that annual validation studies should be required, and if validation shows that the emissions calculation model is inaccurately estimating emissions, ExxonMobil should be required to adjust the calculation methodologies to yield accurate results. *Id.* at 30.

Measurement of VOC Concentration and Flow at Representative Locations

Third, the Petitioners claim the Utilities Permit does not, but should, require the sampling of VOC concentration and flow rates at representative locations. Utilities Petition at 25. The Petitioners remark that VOC concentration and flow rates are vital factors in calculating VOC emissions from wastewater treatment operations. *Id.* For both OFFSITES and ONSITES, the Petitioners assert that the Utilities Permit does not indicate where in the wastewater treatment train ExxonMobil is to monitor VOC concentrations. *Id.* For OFFSITES, the Petitioners claim the Utilities Permit also does not indicate where flow rates are to be measured. For ONSITES, the Petitioners challenge the adequacy of measuring flow where treated wastewater is ultimately discharged into the Mississippi River ("Outfall 001"). *Id.*

The Petitioners claim that LDEQ did not respond to comments requesting that the Utilities Permit specify representative sampling locations for VOC concentration and flow rate. *Id.* at 36–37. The Petitioners also suggest that LDEQ's discussion of prior sampling locations does not address the concerns underlying this claim. *See id.* at 37.

The Petitioners contend that, in order to fully and accurately capture the variability of the emissions associated with different components of the wastewater treatment system, ExxonMobil should measure VOC concentrations and flow near the highest emitting units in the wastewater treatment train. ⁵³ *Id.* at 25–26, 30.

⁵³ For OFFSITES, the Petitioners suggest sampling of both VOC concentration and flow at the point of generation of the highest emitting units, and for ONSITES, the Petitioners suggest sampling at the influent (upstream) of the highest emitting units. *Id.* at 26, 30. The Petitioners additionally suggest various specific locations. *Id.*

Frequency of Monitoring

Fourth, the Petitioners claim that the Utilities Permit does not, but should, specify sufficiently frequent monitoring of VOC concentrations and flow rates for OFFSITES and ONSITES. Utilities Petition at 26.

For OFFSITES, the Petitioners state that SR 1 does not specify any monitoring frequency for either VOC concentration or flow, but instead refers to unspecified “LPDES sampling results.” *Id.* at 26.

For ONSITES, the Petitioners state that SR 2 requires monthly monitoring of VOC concentrations in the wastewater and requires flow monitoring “in accordance with” the facility’s LPDES permit. *Id.* at 26–27. With respect to VOC concentrations, the Petitioners assert that monthly monitoring is insufficient to capture the variability of VOC concentrations in wastewater. *Id.* at 27. With respect to flow monitoring, the Petitioners observe that the LPDES permit requires continuous measurement of flow at Outfall 001, but only requires reporting of monthly average and daily maximum flow. The Petitioners assert that SR 2 is therefore unclear as to which flow information (*e.g.*, monthly average, daily maximum, daily average, or hourly average) is used to calculate VOC emissions. *Id.*

As general support for their claim, the Petitioners assert that both VOC concentration and flow are highly variable and can change over short periods of time depending on operational conditions at the facility. *Id.* at 27.⁵⁴ Addressing LDEQ’s RTC, the Petitioners assert that LDEQ produced no information to show that VOC concentrations show little variability, and contend instead that LDEQ’s response actually proves that VOC and VOC HAP emissions are highly variable. *Id.* at 38, 39. Moreover, the Petitioners also challenge LDEQ’s suggestion that more frequent monitoring is not necessary because ExxonMobil has decades of data relevant to its operations. *Id.* at 37–38. The Petitioners explain that LDEQ does not identify any such data, and even if this data establishes the “ranges” of relevant parameters, this does not mean the parameters exhibit great variability. *Id.* at 38.

The Petitioners also address LDEQ’s contention that the permit’s VOC limits are conservative; the Petitioners question the contingency factor used to establish the limits, challenge the underlying data and calculations from 2002 used to develop these limits, and assert that conditions have changed since 2002. *Id.* at 39–40. Additionally, the Petitioners challenge LDEQ’s conclusion that emissions from OFFSITES are typically very low, arguing for various reasons that these emissions could be higher. *Id.* at 38.

The Petitioners contend that the Utilities Permit should require the VOC concentration in the wastewater be measured on a daily basis (or weekly if VOC concentrations are relatively constant for certain units) and that flow be monitored continuously, with hourly average flow used in emissions calculations. *Id.* at 27, 31.

⁵⁴ Specifically, the Petitioners cite data from Exxon’s LPDES Discharge Monitoring Report showing that daily maximum flow varied by 10% between the last seven months. *Id.* at 27.

Use of Other Emission Calculation Models

Fifth, the Petitioners claim that SR 1 and 2 would allow ExxonMobil to use an unspecified emissions calculation model without revising its title V permit, thereby avoiding public and EPA review of such a change. Utilities Petition at 28. The Petitioners assert that any changes to the emission calculation methodologies would require the use of significant modification procedures. *Id.* The Petitioners argue that the Utilities Permit should be revised to remove the language allowing ExxonMobil to calculate VOC emissions from OFFSITES and ONSITES using “some other model approved by EPA and/or LDEQ.” *Id.* at 31.

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

Utilities Claim 1 concerns annual VOC emission limits that apply to emissions during two portions of the wastewater treatment system at the refinery: OFFSITES (103.47 tpy) and ONSITES (321.0 tpy). These limits appear to have been established in a similar manner to those discussed in Reforming Claims 1 and 2, and similarly must be supported by monitoring sufficient to assure compliance.⁵⁵ As described in the summary of the Petitioners’ claim, the Utilities Permit’s monitoring methodology for both OFFSITES and ONSITES relies heavily on the use of TOXCHEM emissions modeling, in conjunction with periodic monitoring or recordkeeping of certain site-specific parameters used as inputs for TOXCHEM. *See* Utilities Permit, SR 1 and SR 2.⁵⁶ For the reasons explained in the following paragraphs, the Petitioners have demonstrated that the Utilities Permit (*i.e.*, SR 1 and SR 2) does not contain sufficient monitoring to assure compliance with the annual VOC emission limits on wastewater treatment emissions, and that the permit record does not sufficiently explain the basis for said monitoring.

Site-specific Biodegradation Rates

First, the Petitioners have demonstrated that the Utilities Permit and permit record (*i.e.*, LDEQ’s RTC) are not clear as to whether and how ExxonMobil is required to calculate site-specific biodegradation rates for purposes of demonstrating compliance with the ONSITES VOC emission limit. Biodegradation rates are indeed an important variable in calculating VOC emissions from biological wastewater treatment units. As the EPA has explained:

There has been tremendous effort to compile default values for specific variables to estimate air emissions; however, site-specific data provide the most accurate results. The factors that can have the most dramatic impact on air emissions from a biological treatment unit are the ones impacting biodegradation. Compound-specific biodegradation rate constants (*i.e.*, k_0 and k_1) and the half-saturation concentration (*i.e.*, KS) can be determined by using the aerated reactor test (BOX

⁵⁵ *See supra* note 26 and accompanying text.

⁵⁶ As discussed later in this response, the only tenable interpretation of SR 1 and SR 2 appears to be that these conditions require the use of the TOXCHEM model to calculate VOC emissions from wastewater treatment unless and until ExxonMobil follows the appropriate permit revision procedures to use some other calculation model. The EPA is not aware of any such request for a permit revision to date. Thus, the EPA’s response is based on the understanding that the Utilities Permit currently requires the use of TOXCHEM.

test). The empirically derived values can then be used in a predictive model for more accurate results than can be developed when default biodegradation rate constant values are used. The methods used to determine the fraction of organic constituent biodegraded are provided in 40 CFR Part 63, Appendix C⁵⁷

Thus, whether site-specific biodegradation rates should be developed for an individual facility is a valid question for a permitting authority to consider and on which the Petitioners provided extensive comments. In response, LDEQ states:

The commenter also suggests that ExxonMobil should be required to “take into account site-specific data on biodegradation factors for its biological treatment unit (s), as described in the Emissions Estimations Protocol at 7-8 through 7-9.” In the referenced passage, EPA notes that the “methods used to determine the fraction of organic constituent biodegraded are provided in 40 C.F.R. part 63, Appendix C.” Notably, Appendix C specifically allows the use of TOXCHEM to calculate the liquid-phase mass transfer coefficient for a biological treatment unit, subject to stipulations set forth therein. ExxonMobil’s TOXCHEM model utilizes site-specific wastewater characteristics and process design and operating information and therefore accounts for “the specific route that the wastewater takes through the various processes and units in the treatment system, as well as the degree of agitation as the wastewater is routed through the system.”

Utilities RTC at 13 (citations omitted).

This response leaves many questions unanswered. The most important question is: What does the Utilities Permit *require* with respect to biodegradation rates? LDEQ’s statements that 40 C.F.R. part 63, Appendix C *allows* the use of TOXCHEM to calculate one variable (*i.e.*, liquid-phase mass transfer coefficient) impacting biodegradation rates, and that ExxonMobil’s TOXCHEM model *utilizes* unspecified site-specific characteristics, say little about what the Utilities Permit *requires*. Notably, the Utilities Permit does not require ExxonMobil to calculate site-specific biodegradation rates at all, much less following the procedures identified in Appendix C. The Utilities Permit also does not require that ExxonMobil use TOXCHEM to calculate the liquid-phase mass transfer coefficient. It also does not explain whether calculations of this variable, once conducted, would be used in conjunction with other potentially relevant measured variables to calculate site-specific biodegradation rates and, if so, how.

As the Petitioners acknowledge, SR 2 does require ExxonMobil to periodically monitor certain variables that can impact biodegradation rates, including mixed liquor suspended solids and concentration of return activated sludge, as well as status of aerator blowers and tank levels. The EPA presumes that these are the “site-specific wastewater characteristics and process design and operating information” to which LDEQ’s RTC alludes. Utilities RTC at 13. To the extent these variables are related to calculating biodegradation rates, LDEQ does not explain whether or why it viewed these variables as sufficient to calculate site-specific biodegradation rates. Accordingly, it is unclear whether monitoring of these variables would be sufficient or whether, as the Petitioners contend, additional variables (such as biomass concentration levels, biomass

⁵⁷ *Emissions Estimation Protocol for Petroleum Refineries*, *supra* note 50, at 7-8.

types/composition, and the degree of mixing) should be measured in order to calculate site-specific biodegradation rates.

The EPA is not suggesting that the Utilities Permit necessarily *must* include additional monitoring of these variables or require the calculation of site-specific biodegradation rates. However, if LDEQ believes that site-specific degradation rates are necessary to accurately quantify VOC emissions from the biological treatment unit(s)—this is not clear from LDEQ’s RTC—it has failed to clearly establish such requirements in the Utilities Permit and justify them in the permit record. Because the Petitioners have demonstrated that the Utilities Permit and permit record are unclear as to whether and how ExxonMobil must calculate site-specific biodegradation rates, the EPA cannot determine whether the Utilities Permit assures compliance with the annual VOC limit for ONSITES. Accordingly, the EPA grants Utilities Claim 1 with respect to this issue.

Validation

The Petitioners, relying on the EPA’s *Emissions Estimation Protocol for Petroleum Refineries*, assert that validating the results of the TOXCHEM model is “necessary” to assure compliance with VOC limits on wastewater treatment. Utilities Petition at 24. The Petitioners also argue that validation is necessary due to general concerns related to TOXCHEM’s use of assumptions and the “theoretical and empirical simplifications of very complex wastewater treatment processes underlying TOXCHEM.” See Petition at 24–25, 36. Taken to its logical conclusion, the Petitioners’ argument suggests that no source could ever use TOXCHEM (at least for compliance purposes) without validating its results. However, contrary to the Petitioners’ assertion, the Protocol does not state or otherwise suggest that validation is “necessary” when using predictive modeling like TOXCHEM.⁵⁸ The Protocol, along with various EPA regulations, identifies TOXCHEM as an EPA-accepted model for calculating VOC emissions from wastewater treatment operations (as the LDEQ correctly notes in its RTC).⁵⁹ Accuracy of TOXCHEM is largely dependent on the accuracy of site-specific inputs, which are addressed in other portions of Utilities Claim 1.

The Petitioners further claim that validation is necessary because of the “highly variable nature of VOC emissions from Exxon’s wastewater treatment system.” Petition at 36.⁶⁰ However, concerns regarding emission variability are more directly related to the accuracy of measured inputs to the TOXCHEM model. Those concerns will be addressed by improvements related to

⁵⁸ Rather, the Protocol suggests that “validation studies *can be* conducted to support the results.” *Emissions Estimation Protocol for Petroleum Refineries*, *supra* note 50, at 7-9 (*emphasis added*). The Protocol also includes multiple emissions estimation methods (including the use of TOXCHEM) that do not include validation. Although the methods are listed in the order of reliability, the EPA does not state that any of the listed methodologies as unreliable. See *id.* at 7-2. The EPA also observes that the Protocol does not specifically address the sufficiency of monitoring used to demonstrate compliance with permit limits, which is a case-specific inquiry.

⁵⁹ See *Emissions Estimation Protocol for Petroleum Refineries*, *supra* note 50, at 7-2; see 40 C.F.R. part 60, appx. C, appx. E (allowing the use of TOXCHEM without validation for certain purposes).

⁶⁰ Specifically, as Petitioners note, “LDEQ acknowledges that emissions from ExxonMobil’s wastewater treatment system can be highly variable . . .” Utilities RTC at 10. Moreover, ExxonMobil’s permit application also acknowledges the “inherent variability of wastewater streams.” ExxonMobil, Application for Renewal of the Title V Permit for Utilities, EDMS Doc ID 11445060, p. 149–150 of 191 (December 2018).

monitoring the variables used as inputs to TOXCHEM. The Petitioners appear to acknowledge this point, stating that “validation is especially needed *if* Exxon’s Title V permit continues not to require Exxon to measure flow and VOC concentrations at representative locations in the treatment train or frequently enough, and if the permit continues not to require the use of site-specific biodegradation rates.” Utilities Petition at 36 (emphasis added). As explained elsewhere in this Order, the EPA is granting the Utilities Petition with respect to these other issues presented in Utilities Claim 1. LDEQ’s response to this objection should, therefore, reduce the necessity for validation.

Measurement of VOC Concentration and Flow at Representative Locations

The Petitioners have demonstrated that the Utilities Permit does not assure compliance with the VOC limits on OFFSITES and ONSITES because it does not identify the sampling locations of VOC concentration and flow or ensure that such sampling is conducted at representative locations.

With one exception, the Utilities Permit does not identify any required sampling locations for VOC concentration or wastewater flow. *See* Utilities Permit, SR 1 and SR 2.⁶¹ In responding to comments on this issue, LDEQ discusses sampling locations used to establish the relevant emission limits, but says nothing about the sampling locations that ExxonMobil must now use to demonstrate compliance with these limits. *See* Utilities RTC at 12 (“ExxonMobil does *not* demonstrate compliance with permitted VOC . . . limits in the same way that it apparently calculated emissions to establish the limits in the first place . . .”).

As the Petitioners note, measuring VOC concentrations and flow rates at appropriate locations within the wastewater treatment train is important if these inputs to TOXCHEM and resulting VOC emissions are to be accurately quantified. This appears to be particularly important for ExxonMobil’s Baton Rouge Refinery, given that the emission limits comprising OFFSITES and ONSITES include numerous individual emission points with the potential for significant amounts of VOC emissions. In addition to the examples of emission points provided by the Petitioners, *see* Utilities Petition at 26, 30, the EPA understands that a cooling tower is located within the ONSITES wastewater treatment activities, and that this is likely a large source of VOC emissions. Without permit terms requiring the monitoring of VOC concentration and wastewater flow at appropriate locations (*e.g.*, upstream of key emission points), there can be no assurance that ExxonMobil is accurately quantifying emissions for purposes of demonstrating compliance with the VOC limits on OFFSITES and ONSITES. Accordingly, the EPA grants Utilities Claim 1 to the extent it concerns sampling locations for VOC concentration and wastewater flow.

⁶¹ With respect to flow rate measurements for ONSITES, the Utilities Permit does indicate that “flow rate [is to be] monitored in accordance with the terms and conditions of the Baton Rouge Refinery’s LPDES permit for Outfall 001.” Utilities Permit, SR 2. The LPDES permit, attached as Petition Exhibit 6, is reasonably clear that flow is monitored at Outfall 001, where treated wastewater is discharged to the Mississippi River. However, it is unclear whether flow is to be measured at other locations. *See, e.g.*, Utilities RTC at 14 (indicating that flow is measured at the cooling tower for purposes of demonstrating compliance with PM limits); Utilities Petition Exhibit 8 (indicating flow meters are installed at the BIOX Aeration units).

Frequency of Monitoring

With respect to OFFSITES, the Petitioners have demonstrated that the Utilities Permit does not clearly state the frequency with which VOC concentration and wastewater flow will be monitored. Specifically, SR 1 does not specify *any* frequency for monitoring VOC concentrations, and it is unclear whether the oblique reference to “LPDES sampling results” in SR 1 is related to flow monitoring. It is also not clear from LDEQ’s RTC why no monitoring frequency is specified for OFFSITES wastewater treatment emissions (given that monitoring frequencies are specified for various parameters relevant to ONSITES).⁶² Thus, the EPA grants Utilities Claim 1 with respect to the lack of a specified monitoring frequency for OFFSITES.

With respect to ONSITES, the Petitioners have demonstrated that the permit record is unclear as to whether monthly monitoring of VOC concentrations is sufficiently frequent to assure compliance with the annual VOC emission limit. The necessary frequency of monitoring can, as the Petitioners suggest, depend on the variability of emissions. On this point, the permit record contains conflicting information. On one hand, as the Petitioners note, LDEQ concedes that “emissions from ExxonMobil’s wastewater treatment system can be highly variable.” Utilities RTC at 10. On the other hand, LDEQ asserts:

[I]t is appropriate to reduce the frequency of monitoring once the variability of a parameter can be reasonably determined. Such is the case here. ExxonMobil has decades of monitoring and sampling data collected under a variety of operating conditions such that the ranges of chemical concentrations in the influent wastewater and other relevant parameters (*e.g.*, concentration of return activated sludge) have been well established.

Id. at 14.⁶³

Between these two responses, it is unclear whether and to what extent VOC concentrations actually vary, and accordingly whether monitoring VOC concentrations more frequently than monthly is necessary. Further, the EPA does not completely agree with LDEQ’s statement that “it is appropriate to reduce the frequency of monitoring once the variability of a parameter can be reasonably determined.” A more accurate statement would be: “it is appropriate to reduce the frequency of monitoring once the variability of a parameter is determined to be reasonably low.” It could be the case here that the decades of information at LDEQ’s disposal indicate consistently low variability, such that more frequent sampling is not necessary. Or, it could be the case that this data show significant (albeit well-understood) variability, in which case more frequent sampling might be necessary. However, without a clear explanation and supporting quantitative

⁶² This may be related to LDEQ’s suggestion that “Note that incoming flow to WCLA-OFFSITES is mainly stormwater, and actual emissions are typically very low. For example, year-to-date VOC emissions from this source total less than 1 ton. Thus, comprehensive monitoring is not necessary or reasonable for” OFFSITES. Utilities RTC at 14 n.28. However, this statement does not explain why no monitoring frequency is specified in the Utilities Permit.

⁶³ LDEQ also explains that, for purposes of developing the VOC emission limits, “potential emissions were based on operational data and weekly wastewater sampling conducted over a 26-month period to ensure that variability in the wastewater influent and operations was captured. . . . VOC limits were based on the average flow rates and average wastewater influent concentrations, plus a contingency factor of 1.294.” Utilities RTC at 12.

information from LDEQ, it is impossible to know. It is also unclear whether different sampling frequencies might be warranted for different portions of the wastewater operations that comprise ONSITES.⁶⁴ Therefore, the EPA grants Utilities Claim 1 because the permit record does not adequately justify LDEQ's decision to require monthly VOC sampling for ONSITES.

With respect to ONSITES flow sampling frequencies, the Utilities Permit states that "flow rate [is to be] monitored in accordance with the terms and conditions of the Baton Rouge Refinery's LPDES permit for Outfall 001." Utilities Permit, SR 2. The LPDES permit, attached as Petition Exhibit 6, explicitly states that flow is monitored continuously at Outfall 001.⁶⁵ Thus, there does not appear to be any basis for objection on this particular issue. To the extent that LDEQ revises the Utilities Permit (*e.g.*, in response to the EPA's Order) to require wastewater flow measurements at locations other than Outfall 001, additional permit terms concerning measurement frequency at those additional locations will also be necessary. However, that will be a question for LDEQ's forthcoming permit action, not this Order.

Use of Other Emission Calculation Models

The Petitioners have demonstrated that the Utilities Permit could be read to impermissibly allow ExxonMobil to change emission calculation methodologies without updating its permit.

Both SR 1 and SR 2 state: "The permittee shall calculate emissions using TOXCHEM (or other model approved by EPA and/or LDEQ)" Utilities Permit, SR 1 and 2. Any change to a predictive model used for assuring compliance would need to go through the appropriate title V permit revision procedures. While SR 1 and SR 2 require that a model other than TOXCHEM be "approved by EPA and/or LDEQ," it is not clear that this approval includes revising the title V permit. Accordingly, these permit terms could be read to impermissibly allow ExxonMobil to use a different calculation methodology without first revising its title V permit (and potentially without any assurance that such model would be appropriate to use at the Baton Rouge Refinery).⁶⁶ To the extent these terms could be read this way, they would be objectionable for the reasons explained in the EPA's response to Reforming Claim 4.⁶⁷ However, this language could also be read to simply acknowledge the possibility that the ExxonMobil may request to use a

⁶⁴ As explained in the previous subsection, the Utilities Permit does not state where VOC concentrations are required to be measured; this may take place at multiple locations.

⁶⁵ The EPA is not convinced by the Petitioners' concerns regarding how this continuous monitoring data will be used in TOXCHEM (*i.e.*, whether monthly averages, daily maximums, or other values will be used). SR2 states: "If data is collected more frequently than as described above, all valid values or measurements shall be used for purposes of calculating inputs to TOXCHEM or other approved model." Utilities Permit, SR 2. Additionally, because flow is to be monitored continuously, the Petitioners' contentions regarding the variability of flow measurements do not appear relevant.

⁶⁶ The reference to other models "approved by EPA and/or LDEQ" does not necessarily imply that the use of such model would be specifically approved (or appropriate) for use with the Baton Rouge Refinery's operations.

⁶⁷ The language in Utilities Permit SR 1 and SR 2 (which only implicitly suggests the possibility of off-permit changes) is potentially less problematic than the language in Reforming Permit SR 246 (which explicitly provides for such changes).

different calculation methodology, and that such a request would be processed and approved through the appropriate title V permit revision procedures.⁶⁸

Because the Utilities Permit is not clear on its face, and because the permit record contains no explanation of this language, the EPA grants this claim to the extent that SR 1 and SR 2 could be read to impermissibly allow the use of an alternative emission calculation model without following the appropriate permit revision procedures.

Direction to LDEQ: LDEQ must revise the Utilities Permit and permit record to include sufficient monitoring to assure compliance with the annual VOC emission limits on OFFSITES and ONSITES. Specifically, in order to resolve the EPA’s objections related to Utilities Claim 1, LDEQ must address the following issues:

LDEQ must clarify whether it considers it necessary for the Utilities Permit to require the use of site-specific biodegradation rates when calculating emissions from ONSITES. If it is necessary, LDEQ must revise the Utilities Permit to clearly state this requirement, and to specify the method(s) by which such rates will be calculated. LDEQ must also clarify whether it is necessary to monitor additional parameters (such as those identified by the Petitioners) relevant to biodegradation rates, and, as necessary, to revise the permit to include these requirements. Regardless of what LDEQ determines, LDEQ must explain the basis for its decision within the permit record.

LDEQ must identify the location(s) at which VOC concentrations and wastewater flow are to be measured for both OFFSITES and ONSITES. LDEQ should consider whether multiple sites for measurement are appropriate, such as upstream potentially high-emitting components of the wastewater treatment train. In addition to the biological treatment units, the EPA recommends that LDEQ specifically consider monitoring locations that will adequately account for emissions from the cooling tower, which has the potential to release significant amounts of VOC prior to biological treatment. Were the cooling tower associated with process units at the Baton Rouge Refinery (as opposed to the wastewater treatment system), it would be subject to monitoring using the “Modified El Paso Method” on a monthly or quarterly basis in order to identify leaks of total strippable VOCs. *See* 40 C.F.R. § 63.654(c). Alternatively, LDEQ may consider other forms of sampling at appropriate locations upstream and downstream of the cooling tower.⁶⁹ In any case, LDEQ must explain the basis for the chosen locations within the permit record.

LDEQ must revise the Utilities Permit to identify the frequency of VOC concentration and wastewater flow measurements for OFFSITES and explain the basis for this decision within the permit record. LDEQ must also provide additional quantitative information concerning the variability of VOC concentrations in ONSITES in order to justify monitoring VOC

⁶⁸ This latter situation could be viewed as analogous to various EPA regulations that allow sources to request alternative test methods or alternative monitoring procedures from either the EPA or a delegated state agency. *See, e.g.*, 40 C.F.R. §§ 60.8(b), 60.13(i), 63.7(e)(2), 63.7(f) 63.8(b)(1), and 63.8(f). In those situations, a source’s title V permit would similarly require revision following the approval of alternative test methods or monitoring. *See* EPA Process Manual for Responding to Requests Concerning Applicability and Compliance Requirements of Certain Clean Air Act Stationary Source Programs, App’x B (July 2020), available at https://www.epa.gov/sites/default/files/2020-07/documents/111-112-129_process_manual.pdf.

⁶⁹ *See, e.g., Emissions Estimation Protocol for Petroleum Refineries, supra* note 50, at 8-1 to 8-11.

concentrations every 30 days. To the extent that LDEQ requires monitoring of flow at locations other than Outfall 001, it must revise the Utilities Permit to specify the location and frequency of each such monitoring.

The EPA believes that the most transparent and readily enforceable means of effectuating the changes described above would be to revise the Utilities Permit itself (*e.g.*, SR 1 and SR 2) to further specify the relevant inputs to be monitored, along with the location and frequency of monitoring. However, LDEQ may consider whether certain details—*e.g.*, details regarding the methodology by which the measured parameters will be used as inputs to the TOXCHEM model—could instead be contained within a monitoring protocol document, which would be part of the permit record and effectively incorporated into the title V permit so as to be enforceable.

Finally, LDEQ must either revise the Utilities Permit to remove or amend the language providing that ExxonMobil may use an emissions calculation method other than TOXCHEM, or clearly explain in the permit record that this language does not authorize ExxonMobil to use a different calculation methodology without first going through the appropriate title V permit modification procedures.

Utilities Claim 2: The Petitioners claim that “the Proposed Permit’s monitoring and emission calculation requirements cannot ensure compliance with the hourly and annual [particulate matter (PM)] limits for the utility unit’s cooling tower.”

Petitioners’ Claim: The Petitioners claim that the Utilities Permit does not assure compliance with PM limits for ONSITES—specifically, a 17.75 tpy limit and a 4.95 maximum lb/hr limit.⁷⁰ Utilities Petition at 40–41. As with their other claims involving monitoring, the Petitioners reiterate their position that environmental justice concerns mandate focused attention to the adequacy of monitoring and emission calculation requirements. *Id.* at 42.

The Petitioners explain that the Utilities Permit does not specify *any* monitoring of PM emissions from the cooling tower (the only source of PM emissions in ONSITES). The Petitioners acknowledge that LDEQ describes in the RTC how ExxonMobil currently monitors PM emissions from the cooling tower: specifically, by monitoring flow rate continuously and total dissolved solids (TDS) concentrations weekly. *Id.* at 41 (citing Utilities RTC at 12). However, the Petitioners assert that this monitoring cannot assure compliance with the PM limits because it is not included in the Utilities Permit. *Id.*

The Petitioners further assert that, even if this monitoring were included in the Utilities Permit, it would not be sufficient for two reasons: First, the Petitioners claim that LDEQ has not explained how the results of the flow and TDS monitoring will be used to calculate emissions from the cooling tower.⁷¹ *Id.* Second, the Petitioners claim that weekly monitoring of TDS concentration

⁷⁰ See *supra* note 47. Note that in addition to the annual and maximum hourly emission limits, the Utilities Permit also includes an “avg lb/hr” emission rate, which is equivalent to the annual limit divided by 8760 hours per year. See *supra* note 25.

⁷¹ The Petitioners suggest that the Utilities Permit should list any assumptions, manufacturer assurances, emissions factors, and/or other parameters used to calculate PM emissions (particularly those relating to drift rate or control efficiency), as well as a mechanism to validate any such assumptions. *Id.*

is not frequent enough to capture the variability of TDS and thus cannot ensure compliance with the emission limits for the cooling tower (especially the maximum hourly PM limit). *Id.* at 42.

The Petitioners request that the EPA provide specific directions to LDEQ regarding how to revise the permit. *Id.* at 42 n.100. Specifically, the Petitioners ask the EPA to direct LDEQ to modify the title V permit to specify the exact monitoring and emission calculation methods used to calculate PM emissions from the cooling tower, to require regular inspections and maintenance of the drift eliminators if ExxonMobil is relying on manufacturer assurances or assumptions, and to require ExxonMobil to continuously (or at least hourly) monitor TDS. *Id.* at 42-43.

EPA's Response: For the following reasons, the EPA grants the Petitioners' request for an objection on this claim.

The Petitioners have demonstrated that the Utilities Permit does not specify any monitoring or calculation methodology associated with the annual (17.75 tpy) and hourly (4.95 lb/hr) PM limits that apply to the cooling tower within ONSITES. These limits appear to have been established in a similar manner to those discussed in Reforming Claims 1 and 2 and Utilities Claim 1, and similarly must be supported by monitoring sufficient to assure compliance.⁷² It is LDEQ's responsibility, as the title V permitting authority, to ensure that the title V permit "set[s] forth," "include[s]," and "contain[s]" monitoring sufficient to assure compliance with all applicable requirements and permit terms. 42 U.S.C. § 7661c(c); *see id.* § 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); LAC 33:III.501.C.6, 507.B.2. However, the Utilities Permit does not set forth any monitoring for these PM limits. Although LDEQ's RTC states that "ExxonMobil monitors the flow rate through the cooling tower continuously and the total dissolved solids (TDS) concentration weekly to demonstrate compliance with PM₁₀ and PM_{2.5} limitations," Utilities RTC at 12, the Utilities Permit does not require such monitoring or any other monitoring for the PM limits. Because the Utilities Permit does not set forth any required monitoring for the PM limits at issue, the Utilities Permit does not assure compliance with these limits, and the EPA grants Utilities Claim 2.

The EPA need not reach the Petitioners' arguments concerning the sufficiency of the monitoring regime that ExxonMobil is (according to LDEQ) currently following, but which is not included in the Utilities Permit. Until LDEQ revises the Utilities Permit to include this (or other) monitoring, those claims are not ripe.

Direction to LDEQ: LDEQ must revise the Utilities Permit to specify the monitoring required to assure compliance with the PM limits on the cooling tower within ONSITES. If LDEQ intends to add to the Permit the monitoring it describes in its RTC, it should consider the arguments raised in the Utilities Petition and explain why the selected monitoring is sufficient to assure compliance with the relevant emission limits.

⁷² See *supra* note 26 and accompanying text.

Utilities Claim 3: The Petitioners claim that “in violation of 40 C.F.R. § 70.7(a)(5), LDEQ failed to provide a reasoned explanation for why the proposed permit ensures compliance with the VOC and PM limits at issue here.”

Petitioners’ Claim: The Petitioners assert that LDEQ’s failure to adequately explain the basis for the monitoring conditions discussed in Utilities Claims 1 and 2 presents an independent basis for the EPA’s objection, for identical reasons to those discussed in Reforming Claim 3. Utilities Petition at 44.

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

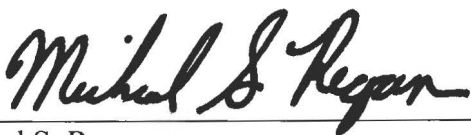
As explained in the EPA’s response to Utilities Claim 1, the permit record does not contain sufficient information to conclude that there is adequate monitoring to assure compliance with the VOC emission limits on wastewater treatment emissions from OFFSITES and ONSITES. LDEQ included no description of the relevant monitoring in the statement of basis accompanying the December 2019 Draft Utilities Permit (this is unsurprising, given that the draft permit did not specify any such monitoring) and failed to sufficiently remedy this defect in its RTC accompanying the October 2020 Proposed Reforming Permit. 40 C.F.R. § 70.7(a)(5).⁷³ Additionally, LDEQ’s RTC does not provide any explanation for why the Utilities Permit does not include monitoring associated with the PM limits addressed in Utilities Claim 2.

Direction to LDEQ: As required by 40 C.F.R. § 70.7(a)(5), LDEQ must include within the permit record an explanation justifying the monitoring included in the Utilities Permit. The EPA’s specific expectations are explained in more detail in our direction to LDEQ stated above for Utilities Claims 1 and 2.

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 the Petitions as described in this Order.

Dated: MAR 18 2022



Michael S. Regan
Administrator

⁷³ LDEQ’s RTC includes an explanation for the monitoring added to the Reforming Permit and generally responds to the substantive concerns raised in public comments. However, this response does not sufficiently explain the basis for the selected monitoring, as explained with respect to Utilities Claim 1.