BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF BP AMOCO CHEMICAL COMPANY TEXAS CITY CHEMICAL PLANT GALVESTON COUNTY, TEXAS PERMIT NO. O1513 ISSUED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY	)	PETITION NO. VI-2017-6 ORDER RESPONDING TO PETITION REQUESTING OBJECTION TO THE ISSUANCE OF TITLE V OPERATING PERMIT

ORDER GRANTING IN PART AND DENYING IN PART A PETITION FOR OBJECTION TO PERMIT

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA or the Agency) received a petition dated April 4, 2017, (the Petition) from the 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 Petition requests that the EPA Administrator object to operating permit No. O1513 (the Permit) issued by the Texas Commission on Environmental Quality (TCEQ) to the BP Amoco Chemical Company's Texas City Chemical Plant (BP Amoco or the facility) in Galveston County, Texas. The operating permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and Title 30, Chapter 122 of the Texas Administrative Code (TAC). *See also* 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). This type of operating permit is also referred to as a title V permit or part 70 permit.

Based on a review of the Petition and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, the EPA grants in part and denies in part the Petition requesting that the EPA Administrator object to the Permit. Specifically, the EPA grants portions of Claim B, as well as Claim C, and denies the rest of the claims.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(l) of the CAA, 42 U.S.C. § 766la(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 Texas submitted a title V program governing the issuance of operating permits on September 17, 1993. The EPA Granted

interim approval of Texas's title V operating permit program in 1996, and granted full approval in 2001. *See* 61 Fed. Reg. 32693 (June 25, 1996) (interim approval effective July 25, 1996); 66 Fed. Reg. 63318 (December 6, 2001). This program, which became effective on November 30, 2001, is codified in 30 TAC Chapter 122.

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).

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). 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)(l).[1] Under

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

section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA.[2]

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)).[3] 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.[4] Certain aspects of the petitioner's demonstration burden are discussed in the following paragraph. A more detailed discussion can be found in *In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana*, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

The EPA 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 the petitioner has addressed the state or local permitting authority's decision and reasoning. The EPA expects the petitioner to address the permitting authority's final decision, and the permitting authority's final reasoning (including the state's response to comments), where these documents were available during the timeframe for filing the petition. *See MacClarence*, 596 F.3d at 1132–33.[5] Another factor the EPA examines is whether a petitioner has provided the relevant analyses and citations to support its claims. If a petitioner does not, the

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[2] *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.

[3] *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)).

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

[5] *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).

EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").[6] Relatedly, the EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g.*, *In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013).[7] Also, the failure to address a key element of a particular issue presents further grounds for the EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g.*, *In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[8]

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

If the EPA grants a title V petition, 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.

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

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

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

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).

C. New Source Review

The major New Source Review (NSR) program is comprised of two core types of preconstruction permit requirements for major stationary sources. Part C of title I of the CAA establishes the Prevention of Significant Deterioration (PSD) program, which applies to new major stationary sources and major modifications of existing major stationary sources for pollutants for which an area is designated as attainment or unclassifiable for the national ambient air quality standards (NAAQS) and for other pollutants regulated under the CAA. 42 U.S.C. §§ 7470–7479. Part D of title I of the Act establishes the major nonattainment NSR (NNSR) program, which applies to new major stationary sources and major modifications of existing major stationary sources for those NAAQS pollutants for which an area is designated as nonattainment. 42 U.S.C. §§ 7501–7515. The EPA has two largely identical sets of regulations implementing the PSD program. One set, found at 40 C.F.R. § 51.166, contains the requirements that state PSD programs must meet to be approved as part of a state implementation plan (SIP). The other set of regulations, found at 40 C.F.R. § 52.21, contains the EPA's federal PSD program, which applies in areas without a SIP-approved PSD program. The EPA's regulations specifying requirements for state NNSR programs are contained in 40 C.F.R. § 51.165.

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

The EPA has approved Texas's PSD, NNSR, and minor NSR programs as part of its SIP. *See* 40 C.F.R. § 52.270(c) (identifying EPA-approved regulations in the Texas SIP). Texas's major and minor NSR provisions, as incorporated into Texas's EPA-approved SIP, are contained in portions of 30 TAC Chapters 116 and 106.

III. BACKGROUND

A. The BP Amoco Texas City Chemical Plant Facility

BP Amoco's Texas City Chemical Plant, located in Texas City, Galveston County, Texas, consists of six major production units: Paraxylene Complex, Polybutene Unit, No. 1 Metaxylene Unit, No. 2 Metaxylene Unit, Propylene Concentration Unit, and Chemical Docks. The facility is a major source of volatile organic compounds, nitrogen oxides, carbon monoxide, hazardous air pollutants, and greenhouse gases, and is subject to title V of the CAA. Emission units within the facility are also 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).

B. Permitting History

BP Amoco first obtained a title V permit for the Texas City Chemical Plant in 2004, which was first renewed in 2009. On November 14, 2013, BP Amoco submitted an application for a renewal title V permit. TCEQ noticed the Draft Permit and Statement of Basis on June 12, 2014, subject to a public comment period from June 12, 2014, until July 14, 2014. On December 20, 2016, TCEQ transmitted the Proposed Permit, along with its Response to Comments (RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on February 3, 2017, during which time the EPA did not object to the Proposed Permit. TCEQ issued the final title V permit for the Texas City Chemical Plant on February 15, 2017 (Final Permit).

C. Timeliness of Petition

Pursuant to the CAA, if the EPA does not object to a proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. 42 U.S.C § 7661d(b)(2). The EPA's 45-day review period expired on February 3, 2017. Thus, any petition seeking the EPA's objection to the Proposed Permit was

due on or before April 4, 2017. The Petition was received April 4, 2017, and, therefore, the EPA finds that the Petitioners timely filed the Petition.

IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS

Claim A: The Petitioners Claim That "The Proposed Permit Fails to Establish a Compliance Schedule for BP to Obtain a Federally-Approved Major Source Permit."

Petitioners' Claim: Claim A concerns Flexible Permit No. 1176, which is incorporated by reference into the source's title V permit. This claim turns on the Petitioners' characterization of the flexible permit as a "state-only" permit because: "At the time BP's flexible permit was issued, Texas's minor source flexible permit program rules were not part of Texas's federally-approved [SIP]." Petition at 5.[9]

The Petitioners go on to assert: "The Proposed Permit is deficient because it fails to establish a compliance schedule for BP to apply for and obtain a federally-approved major source preconstruction permit for projects authorized by BP's State-only Flexible Permit No. 1176." *Id*.

As the Petitioners explain, a source's title V permit must include a compliance schedule if the source has failed to comply with an applicable requirement at the time of title V permit issuance. *Id*. (citing 42 U.S.C. §§ 7661b(b), 7661c(a); 40 C.F.R. §§ 70.5(c)(8)(iii)(C), 70.6(c)(3); 30 TAC § 122.142(e)). The Petitioners claim that the Texas SIP required BP Amoco to obtain preconstruction authorizations for projects at the facility through the issuance, amendment, or alteration of an NSR permit issued under 30 TAC § 116, Subchapter B. *Id*. at 6 (citing 30 TAC §§ 116.110, 116.111, 116.116). The Petitioners assert that these Subchapter B rules "require BP to apply BACT to each new and modified facility and to obtain a preconstruction authorization before commencing any project that would increase actual emissions from any existing unit, even if the actual increases could be maintained below previously permitted allowables." *Id*. The Petitioners claim that, contrary to these requirements, the facility "failed to 'obtain SIP approved authorizations for flexible permit changes made to the Texas City Chemical Plant.'" *Id*. at 6 (quoting RTC at 22–23). The Petitioners assert that this failure amounted to a violation of the Texas SIP and the CAA. *Id*. at 7. Therefore, the Petitioners contend that the title V permit must include a compliance schedule to remedy this alleged violation. *Id*. at 9.

The Petitioners note that BP Amoco previously submitted a permit application to convert Flexible Permit No. 1176 into a SIP-approved Subchapter B permit (known as a "de-flex" application). *Id*. at 7. However, the Petitioners state that, after the close of the comment period on the Draft Permit, BP Amoco withdrew this de-flex application and submitted a different application to renew its flexible permit under flexible permit rules that are now SIP-approved. *Id*.

[9] *See also id.* at 6 (citing 42 U.S.C. 7410(i); 79 FR 40666, 40667–68 (July 14, 2014); Objection to Federal Operating Permit No. O1227, Goodyear Tire & Rubber Company, Houston Chemical Plant (January 8, 2010) (*Goodyear Objection Letter*) ("[T]he terms and conditions of flexible permits based upon the requirements of 30 TAC Chapter 116, Subchapter G must be identified as State-only terms and conditions, pursuant to 40 CFR § 70.6(b)(2).") (quotation in Petition)). The EPA notes that this January 8, 2010 objection was issued under authority delegated by the EPA Administrator to Region 6 to object during the EPA's 45-day review period. The objection letter is available at *https://www.tceq.texas.gov/assets/public/permitting/air/Announcements/epa_goodyear_O1227.pdf*.

at 7–8. The Petitioners assert that this most recent flexible permit application cannot resolve the failures alleged in the Petition because, according to the Petitioners, "federally-approved flexible permits may only be issued to minor sources." *Id*. at 8 (citing *Environmental Integrity Project v. EPA*, 2015 610 Fed. Appx. 409 (5th Cir. 2015) (*Flex II*), along with various filings by Texas associated with related litigation). Thus, in order to remedy the alleged violation, the Petitioners assert that the "Proposed Permit must be revised to establish a schedule for BP to obtain a federally-approved major source permit for units covered by its State-only Flexible Permit." *Id*. at 9.

The Petitioners note that TCEQ, in responding to comments on the Draft Permit, stated: "[TCEQ] agrees that BP should obtain SIP approved authorizations for flexible permit changes made to the Texas City Chemical Plant." *Id*. (quoting RTC at 22–23). The Petitioners further assert that TCEQ agreed to revise the Permit to include such a requirement, but that TCEQ failed to carry through on this commitment in the Proposed Permit, which does not contain the language that TCEQ agreed to include. *Id*. at 9–10.

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

The only basis for objection identified in the Petition is the claim that the Permit must contain a compliance schedule because BP Amoco allegedly relied on state-only Flexible Permit No. 1176 to authorize various unidentified and undescribed projects. On this issue, the Petitioners have not demonstrated that a compliance schedule is necessary.

The EPA's regulations and TCEQ's EPA-approved regulations provide that a compliance schedule is required "for sources that are not in compliance with all applicable requirements at the time of permit issuance." 40 C.F.R. § 70.5(c)(8); *see also id.* § 70.6(c); 30 TAC §§ 122.132(d)(iii), 122.142(d)(1). However, the EPA will not object to a permit where the Petitioners have provided no specific evidence to demonstrate that the facility is not in compliance with applicable requirements of the Act. *In the Matter of Bunge North American, Inc.*, Order on Petition No. VI-2016-02 at 6–7 (June 7, 2017) (citing *Georgia Power Plants Order* at 9–10). The demonstration requirement is particularly important with respect to the inclusion of a compliance schedule in light of the interplay between compliance schedules and the Agency's enforcement prerogatives.[10]

[10] *See Sierra Club v. EPA*, 557 F.3d 401, 411–412 (6th Cir. 2009) (upholding EPA's denial of petition for compliance schedule where enforcement action had been commenced and settled without admission of liability). Even where there is evidence in the record that an enforcement action is underway (which the Petitioners have not presented here), the EPA has in the past applied a multi-factored analysis to determine whether a compliance schedule is warranted: (1) the kind and quality of information underlying the Agency's original finding that a prior violation occurred, (2) the information the petitioner puts forward in addition to the Agency's enforcement actions, (3) the types of factual and legal issues that remain in dispute, (4) the amount of time that has lapsed between the original decision and the current one and (5) the likelihood that a pending enforcement case could resolve some of those issues. *See id.* at 406–407 (upholding these factors as a reasonable interpretation of 42 U.S.C. § 7661d(b)(2)); *accord Sierra Club v. Johnson*, 541 F.3d 1257, 1267-69 (11th Cir. 2008) (initiation of enforcement action for PSD violation is not in and of itself sufficient to demonstrate that compliance schedule is warranted).

Here, the Petitioners have failed to demonstrate that there are applicable requirements with which the facility was not in compliance at the time of permit issuance. The Petitioners suggest that BP Amoco failed to obtain the correct type of preconstruction authorizations at various times in the past based on its reliance on the state-only flexible permit. However, the Petitioners provide only generic references to "projects authorized by BP's State-only Flexible Permit No. 1176," Petition at 5, and do not discuss or describe *any* specific changes to the facility that were not properly authorized.[11] Accordingly, the Petitioners have not demonstrated that the facility failed to obtain the required preconstruction authorizations for any particular projects or that the NSR authorizations for any emission unit are incomplete or fail to comply with the SIP. The Petitioners accordingly have not demonstrated that the source is not in compliance with any particular applicable requirement that should have applied to a particular emission unit. *See* 40 C.F.R. § 70.2 (defining "applicable requirement[s]" "as they apply to emission units"); *see also In the Matter of ExxonMobil Baytown Refinery*, Order on Petition No.VI-2016-14, at 17–18 (April 2, 2018). Accordingly, the Petitioners' claim requesting a compliance schedule is denied.[12]

Nonetheless, the EPA agrees with the Petitioners' characterization of Flexible Permit No. 1176 as a "state-only" authorization, as this permit was issued pursuant to rules that were not approved by the EPA into the Texas SIP. Since at least 2007, the EPA has consistently described this type of flexible permit as "state-only" and not federally enforceable. Notably, when the EPA approved the Texas flexible permitting program into the SIP in 2014, the EPA explained:

> [T]the commenters appear to be implying that this approval [of the modern Texas flexible permits program] will transform state-only flexible permits issued since 1994 into federally approved permits upon the effective date of this rule. This is not the case and the EPA strongly rejects any suggestion to the contrary[.]
>
> The state established and submitted for EPA approval a Flexible Permit Program in 1994. As described in detail below, the Flexible Permit Program we are conditionally approving today consists of 18 revisions to the Texas Administrative Code presented to the EPA in 7 submittals between 1994 and 2013 and contains new provisions that were never in any earlier version of the Flexible Permit Program submitted to the EPA. Those provisions could not have been used as a legal basis for establishing terms and conditions of state-only permits issued in the 1990s. Because those permits were not issued under the regulations that we are approving today, there can be no assurance that the state-only permits fully comply with all elements of the Flexible Permits Program we are approving today. Accordingly, today's action cannot make those state-only permits federally

[11] For example, the Petitioners do not provide any description of the emission units at issue, the projects themselves, any emissions increases associated with such projects, or how specific regulatory requirements (such as BACT) should have been applied to these projects.

[12] In concluding that the Petitioners have not met their burden to demonstrate a flaw in the title V permit, the EPA is not making any judgment regarding the propriety of BP Amoco's reliance on the flexible permitting process with respect to any past or future modifications to the facility. To the extent that a facility relied or relies on a state-only flexible permit to authorize a construction project, rather than following the otherwise applicable NSR requirements in the Texas SIP, this type of compliance issue should be addressed through the appropriate title I permitting channels or enforcement actions.

> approved unless and until a permit is reissued under the authority of the program being approved today with terms and conditions defined by that program.

79 Fed. Reg. 40666, 40668 (July 14, 2014). Additionally, TCEQ has acknowledged:

> A flexible permit issued or renewed prior to September 12, 2014 is a valid state permit. However, it is not a SIP approved permit. A flexible permit issued or renewed prior to September 12, 2014 *may be re-evaluated* under the current 30 TAC Chapter 116, Subchapter G requirements *to become* SIP approved.

TCEQ, Air Permit Reviewer Reference Guide: Flexible Permit Application Review Summary, APDG 6280v2 (Revised December 2014) (emphasis added).

Moreover, as the Petitioners briefly acknowledge, the EPA has objected to the issuance of title V permits incorporating these state-only permits on nearly 20 occasions. *E.g.*, *Goodyear Objection Letter*. These objections were based in part on 40 C.F.R. § 70.6(b)(2), which mandates that "the permitting authority shall specifically designate as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements," such as an EPA-approved SIP. Accordingly, on numerous occasions between 2009 and 2011, the EPA directed TCEQ: "[T]he terms and conditions of flexible permits based upon the requirements of 30 TAC Chapter 116, Subchapter G must be identified as State-only terms and conditions, pursuant to 40 CFR § 70.6(b)(2)." *E.g.*, *Goodyear Objection Letter*.

Here, it can hardly be contested that the November 13, 2013 version of Flexible Permit No. 1176, as incorporated into the current title V permit, is a state-only authorization. It was, as the Petitioners indicate, issued under regulations that were not part of the EPA-approved Texas SIP.[13] However, the title V permit for BP Amoco currently incorporates Flexible Permit No. 1176 without qualification, suggesting that it is a federally enforceable requirement of the title V permit. *See* Final Permit at 12 (Special Condition 20), 224.[14] This plainly contravenes the requirement that non-federally enforceable requirements be designated as such. 40 C.F.R. § 70.6(b)(2). This requirement is important because if state-only provisions are not appropriately designated, they may conflict with or undermine federally enforceable provisions that should otherwise apply.

This concern is particularly relevant in the case of flexible permits. Flexible permits issued by TCEQ provide sources with an alternative to complying with otherwise-applicable requirements

[13] TCEQ acknowledges as much in its RTC. RTC at 23.

[14] To make matters more complicated, the terms of Flexible Permit No. 1176 are combined with the terms of PSD Permit No. PSDTX782 in a single document, and the authority for each individual permit term is not apparent from the face of the combined permit. *See* 40 C.F.R. § 70.6(a)(1)(i) ("The permit shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based."); 30 TAC § 122.142(b)(2) ("Each permit shall also contain the specific terms and conditions for each emission unit regarding the following: . . . the specific regulatory citations in each applicable requirement or state-only requirement identifying the emission limitations and standards"); *see also In the Matter of U.S. Dep't of Energy, Hanford Operations*, Order on Petition No. X-2019-8 at 13 n.17 (February 19, 2020).

of the Texas SIP. *See* 30 TAC § 116.710 (a) ("[A] flexible permit . . . allows for physical or operational changes . . . as an *alternative* to obtaining a new source review permit under §116.110 of this title (relating to Applicability), or *in lieu of* amending an existing permit under §116.116 of this title (relating to Changes to Facilities)." (emphasis added)). Because of this, the incorporation of state-only Flexible Permit No. 1176 into BP Amoco's title V permit renders the title V permit unclear and misleading about the requirements that apply to the facility. Specifically, the permit suggests that the facility may rely on the state-only flexible permit to authorize future modifications instead of following the requirement to obtain an authorization under the relevant SIP-approved rules (*e.g.*, those in Chapter 116, Subchapter B, or in a flexible permit issued under the now SIP-approved Subchapter G).[15] This frustrates a central purpose of the title V program: to "clarify, in a single document, which requirements apply to a source and, thus, . . . enhance compliance with the requirements of the Act."[16]

However, nowhere within the Petition do the Petitioners argue that these issues form a basis for EPA's objection to the Permit.[17] Moreover, BP Amoco's flexible permit was recently renewed and reissued under TCEQ's now-SIP-approved rules. Flexible Permit No. 1176 (reissued on April 6, 2020 and revised on May 29, 2020). In response to issues identified in Claim B, this Order requires TCEQ to revise BP Amoco's title V permit. This will necessarily require TCEQ to update the title V permit to incorporate this newest, SIP-approved version of the flexible permit, replacing the prior, non-SIP-approved version. The EPA expects that this will be sufficient to resolve the issues that EPA has identified, as well as those underlying the Petitioners' request for a compliance schedule. That is, the redress sought by the Petitioners through a compliance schedule—a requirement for the facility to obtain a federally enforceable authorization for projects previously authorized by the state-only flexible permit and to include

[15] This concern persists independent from the recent issuance of a valid SIP-approved flexible permit to BP Amoco. Here, the current version of BP Amoco's title V permit (upon which the Petition is based) incorporates the older state-only flexible permit, which was based on different flexible permitting rules that were *not* SIP-approved. Until the title V permit is updated to replace the state-only flexible permit with a SIP-approved flexible permit, there remains an implication within the title V permit that the source may rely on this prior flexible permit in disregard of the proper SIP-approved mechanisms. This is why, as discussed later in this Order, it is important that TCEQ promptly update the title V permit.

[16] 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see id*. ("The title V permit program will 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."); *see also* Conference Report on S. 1630—Clean Air Act Amendments: Speech of Hon. Michael Bilirakis of Florida in the House of Representatives (Oct. 26, 1990), reprinted in 6 Environment and Natural Resources Policy Division of the Congressional Research Service of the Library of Congress, Legislative History of the Clean Air Act Amendments of 1990, at 10767-69 (1998) (explaining that the title V program served three purposes, including "to facilitate enforcement by providing a single reference for all of a major source's operating limits and requirements under the Clean Air Act.")

[17] This is notable because the same Petitioners *did* raise such claims in petitions on other permits, such as the April 11, 2017 petition on Blanchard's Galveston Bay Refinery, to which the EPA will respond separately.

this authorization in the facility's title V permit—will effectively be accomplished by the incorporation of the now SIP-approved flexible permit into the title V permit.[18]

The Petitioners are incorrect to suggest otherwise. *See* Petition at 8 (arguing that issuing a SIP-approved flexible permit would not resolve the Petitioners' concerns because the SIP-approved flexible permit program is only available to authorize construction at minor sources, not major sources like BP Amoco). The Petitioners' arguments on this point conflate the distinction between minor *sources* (and major sources) and minor NSR *programs*. Major sources routinely use minor NSR programs to authorize modifications that do not qualify as "major modifications." Specific to the Texas flexible permits program, the EPA has repeatedly explained: "the Flexible Permit program can be used for both true minor sources and for minor modifications at existing major sources[.]" 79 Fed. Reg. 8368, 8380 (February 12, 2014).[19] Nothing in the EPA's approval of the Texas flexible permits program, nor in the Fifth Circuit's *Flex I* and *Flex II* decisions, indicated that only minor *sources* may take advantage of this minor NSR *program*.[20] Thus, to the extent that the Petitioners' claim is predicated on the notion that SIP-approved flexible permits are unavailable to major sources, it is mistaken.

Claim B: The Petitioners Claim That "The Proposed Permit Fails to Assure Compliance with Emission Limits and Operating Requirements Established by BP's New Source Review Permits."

Within Claim B, the Petitioners assert:

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[18] The EPA appreciates the Petitioner's confusion concerning TCEQ's indication that it would add a term to the BP Amoco Permit requiring the source obtain Subchapter B authorizations for the projects authorized by the flexible permit. Prior to TCEQ's issuance of the RTC, BP Amoco had already withdrawn its application to "de-flex" its permit by obtaining Subchapter B authorizations (the outcome suggested by TCEQ's RTC), and instead had submitted an application to obtain a renewed flexible permit under the now SIP-approved regulations. Although TCEQ's RTC did not acknowledge this change of plans, the result is similar: the facility has now obtained a SIP-approved authorization for projects previously authorized by the state-only flexible permit. Therefore, the Petitioners have, in effect, received the relief they requested.

[19] *See also id.* ("Each of these amendments to the Flexible Permit Program ensures that the program is for minor NSR actions and that for any minor amendments to a major source, the source will retain its major source requirements (i.e., cannot be used to circumvent the major source requirements)."); *id*. at 8378 n.7 ("These sources include minor sources as well as major sources seeking minor modifications to their facilities."). These clear statements came from the preamble to the proposed rule conditionally approving the Texas flexible permits program. Some of the Petitioners subsequently challenged the accompanying final rule, which was upheld by the Fifth Circuit in *Flex II*, which the Petitioners cite.

[20] In addition to the clear statements made in proposing to approve the Texas flexible permits program (quoted in the preceding footnote), the EPA explained in its final conditional approval that "this is a minor NSR *program*." 79 Fed. Reg. 40666, 40668, 40669 (July 14, 2014) (emphasis added). Similarly, the Fifth Circuit's *Flex I* and *Flex II* opinions refer repeatedly to "Minor NSR" and "Major NSR"—referring to the two programs, not necessarily the type of source. *Texas v. EPA*, 690 F.3d 670 passim (5th Cir 2012) (*Flex I*); *Flex II*, 610 Fed. Appx. 409 passim (5th Cir. 2015). Neither decision implies that only minor *sources* may take advantage of the flexible permit minor NSR *program*. Instead, both decisions acknowledge that major sources could use the flexible permit program, albeit not in a way that allowed them to avoid Major NSR for a modification that would otherwise trigger it. *See Flex I*, 690 F.3d at 686 (rejecting concerns that major sources might "avoid Major NSR by exploiting the Flexible Permit Program" because "[m]ajor sources cannot use a flexible permit to avoid Major NSR without violating the law."); *Flex II*, 610 Fed. Appx. at 410 (quoting the preceding passage from *Flex I*). This means that while existing major sources may use a flexible permit to authorize minor modifications, they cannot use a flexible permit to authorize a modification that would otherwise be subject to major NSR. To do so would amount to a violation of the SIP.

> The Proposed Permit is deficient because it fails to establish monitoring, reporting, and recordkeeping requirements that assure ongoing compliance with emission limits in [NSR] permits that it incorporates by reference and because the permit record does not contain a reasoned explanation supporting the Executive Director's determination that monitoring provisions in the Proposed Permit assure compliance with these requirements.

Petition at 10. Before presenting specific claims, the Petitioners provide background on the requirements of title V related to monitoring. The Petitioners assert that title V permits must contain monitoring, recordkeeping, and reporting conditions that assure compliance with all applicable requirements, including emission limits in NSR permits and Permits by Rule (PBR) that are incorporated by reference into a title V permit. *Id*. at 11 (citing 42 U.S.C. § 7661c(a), (c); 40 C.F.R. §§ 70.2, 70.6(a)(3), (c)(1); *In the Matter of Wheelabrator Baltimore, L.P.*, Order on Petition, Permit No. 24-510-01886 at 10 (April 14, 2010) (*Wheelabrator Baltimore Order*)).[21] Moreover, the Petitioners contend that the "rationale for the selected monitoring requirements must be clear and documented in the permit record." *Id*. (citing 40 C.F.R. § 70.7(a)(5); *In the Matter of U.S. Steel, Granite City Works*, Order on Petition No. V-2009-03 at 7–8 (January 31, 2011) (*U.S. Steel I Order*)). The Petitioners acknowledge that TCEQ's Statement of Basis for the Draft Permit states "With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the [title V permit], the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements." *Id*. at 11 (quoting Statement of Basis at 56). The Petitioners assert that neither the periodic monitoring or CAM summaries address the requirements at issue in Claim B, and that "the Statement of Basis does not provide a reasoned justification for the Executive Director's determination that existing provisions in BP's NSR permits and PBRs assure compliance with applicable permit limits and operating requirements." *Id*.

Claim B includes multiple distinguishable subclaims that EPA has rearranged to facilitate the Agency's analysis. The EPA's response to Claim B addresses each of the Petitioners' allegations according to the following numbering system (not supplied in the Petition):

[21] The Petitioners also note that TCEQ's now SIP-approved flexible permit rules require that monitoring systems in flexible permits "must accurately determine all emissions of the pollutants in terms of mass per unit of time." *Id*. at 11–12 (quoting 30 TAC § 116.715(d)). It is not clear whether these regulations governed the state-only version of Permit No. 1176 that is incorporated into the current title V permit, and/or whether the Petition claims should be judged against this authority alongside the authorities based in title V (cited in the text accompanying this footnote). However, given that each of the emission limits at issue in Claim B are defined in mass per unit of time, the EPA's analysis of whether the Permit assures compliance with these limits under the title V monitoring authorities will inherently also address this SIP-based authority, to the extent it is applicable.

- Claim B.1 addresses NOx and CO emissions from two combustion units authorized by Permit No. 1176/PSDTX782[22] (Petition pages 13–16, 25–27);
- Claim B.2 addresses VOC and benzene emissions from flares authorized by Permit No. 1176/PSDTX782 (Petition pages 16–18, 27–29);
- Claim B.3 addresses VOC and benzene emissions from storage tanks authorized by Permit No. 1176/PSDTX782 (Petition pages 18–20, 29–30);
- Claim B.4 addresses particulate matter (PM) emissions from cooling towers authorized by Permit No. 1176/PSDTX782 (Petition pages 20–21, 30–32); and
- Claim B.5 addresses monitoring associated with PBRs (Petition pages 21–22, 32–34).

Claim B.1: Monitoring of NOx and CO from combustion units

Petitioners' Claim: The Petitioners claim that the monitoring associated with NOx and CO emissions from two mid-sized combustion units (Units HF-204 and HF-601) is insufficient to assure compliance with multi-unit emission caps established by Permit No. 1176/PSDTX782. Petition at 13. Specifically, the Petitioners note that Permit No. 1176/PSDTX782 establishes the following limits on emissions from these two units (along with seven others): 30 lbs/hr NOx, 158.54 TPY NOx; 86.01 lbs/hr CO; 388.54 TPY CO. *Id*. The Petitioners further state that the permit gives BP a choice to calculate NOx and CO emissions from Units HF-204 and HF-601 "using stack test data, if available, vendor guarantee emission factors, or AP-42 emission factors." *Id*. (citing Permit No. 1176/PSDTX782, Special Conditions 7 and 9). The Petitioners assert that all three of the potential monitoring options are objectionable because they do not assure compliance with the relevant emission caps and because they do not reliably determine emissions in mass per unit of time. *Id*. at 13–14.

First, regarding stack testing, the Petitioners claim that the Permit does not require any periodic stack testing of NOx and CO from units HF-204 and HF-601. *Id*. at 14. Instead, the Petitioners assert that Permit No. 1176/PSDTX782 only required BP Amoco to conduct a single stack test prior to February 28, 2003. *Id*. (citing Permit No. 1176/PSDTX782, Special Condition 15). The Petitioners contend: "It is well-established that a single stack-test is not sufficient to assure ongoing compliance with emission limits over the operational life of an emission unit." *Id*. (citing *the Matter of Luke Paper*, Order on Petition, Permit No. 24-001-00011 at 5–6 (October 18, 2010)).

[22] The Petition challenges the terms of the November 13, 2013 version of Flexible Permit No. 1176, as incorporated into the current title V permit. As an initial matter, it is unclear whether each of the permit terms cited by the Petitioners within Claims B.1, B.2, B.3, and B.4 are associated with state-only Flexible Permit No. 1176 (as the Petitioners suggest) or federally enforceable PSD Permit No. PSDTX782. As noted previously, *supra* note 14, these terms are contained in a combined document (Permit No. 1176/PSDTX782) that includes conditions derived from both permits, but which does not identify the authority for each condition. *See* 40 C.F.R. § 70.6(a)(1)(i). To the extent that these conditions were exclusively derived from a state-only regulation that was not SIP-approved (*i.e.*, the pre-2014 Texas flexible permits program), and had they been designated as not federally enforceable, they would not be properly subject to review through the title V petition process. *See* 40 C.F.R. § 70.6(b)(2) ("Terms and conditions so designated are not subject to the requirements of §§ 70.7, 70.8, or of this part . . . ."). However, because they were not so designated, and given that they may have been derived from TCEQ's authority to issue and revise PSD permits, the EPA is responding to Claims B.1, B.2, B.3, and B.4. This will cease to be an issue once TCEQ incorporates the May 29, 2020 version of Flexible Permit No. 1176 into the title V permit, as this permit was issued under EPA-approved SIP regulations. Claim B.5 does not concern Flexible Permit No. 1176, and so the EPA's response to Claim B.5 is not impacted by these flexible permitting issues.

Second, regarding vendor guarantees, the Petitioners assert that the permit record contains no information supporting the use of vendor guarantees. *Id*. The Petitioners claim that the Permit does not identify any specific guaranteed emission rate, and assert: "Where a Title V permit allows an operator to use an emission factor to determine compliance with an applicable limit, the relevant emission factor must be listed in the permit." *Id*. at 14–15 (citing *In the Matter of U.S. Steel, Granite City Works*, Order on Petition No. V-2011-2, at 9–12 (December 3, 2012) (*U.S. Steel II Order*)). Moreover, the Petitioners claim that the Permit does not identify the operational ranges the source must maintain for the guarantee to apply. *Id*. at 15. Accordingly, the Petitioners assert that the permit record does not demonstrate that vendor guarantees are a reliable indicator of emissions across all possible operating scenarios. *Id*.

Third, regarding the use of AP-42, the Petitioners claim that, according to the EPA, AP-42 emission factors should only be used as a "last resort" to determine compliance with emission limits. *Id*. at 15. (citing EPA, AP-42). The Petitioners assert that although AP-42 factors might be appropriately used to determine compliance with unit-specific requirements, they should not be used to demonstrate compliance with a multi-unit emissions cap like those relevant to these combustion units. *Id*. at 16. In any case, the Petitioners assert that the permit record contains no justification for why AP-42 emission factors would reliably predict actual emissions from Units HF-205 and HF-601, and that the Permit contains no requirements that would assure that BP Amoco's units would be operated consistent with the conditions upon which the relevant emission factors were based. *Id*.

Additionally, the Petitioners assert that none of the three monitoring options require BP Amoco to monitor fuel temperature and pressure, nor does the permit record explain why it is not necessary to do so. *Id*. The Petitioners claim that an indirect monitoring protocol at a different BP facility, which similarly did not account for fuel temperature and pressure, under-predicted actual emissions of combustion units by 20 percent. *Id*. The Petitioners assert that TCEQ failed to respond to comments raising this issue. *Id*. at 27 (citing *Wheelabrator Baltimore Order* at 4–8).

The Petitioners address the RTC that TCEQ did provide,[23] in which TCEQ stated:

> [TCEQ] disagrees that these conditions do not provide an adequate assurance of compliance with emission limits from these sources. CEM, stack testing, or emission calculations are accepted protocols for determining compliance with emission limits. [TCEQ] disagrees that annual stack testing should be required of BP to establish source specific emission factors. AP-42 emission factors are conservative in nature and often overestimate emissions. The rationale for the

[23] Before addressing TCEQ's RTC related to Claim B.1, the Petitioners discuss TCEQ's more general remarks that apply to all the flexible permit monitoring claims (i.e., Claims B.1, B.2, B.3, and B.4). Specifically, to the extent that TCEQ relied on monitoring in unit-specific BACT limits or on unit-specific elements of a source's customized control plan, the Petitioners assert that these requirements cannot assure compliance with the multi-unit flexible emission caps because the permit does not establish any unit-specific BACT limits on the units at issue here, and because the customized control plan is not incorporated into the title V permit. *See id*. at 23–24. Additionally, the Petitioners assert that flexible permits must include heightened monitoring compared to typical NSR permits. *Id*. at 24 (citing 30 TAC § 116.715(c)(5)(B), (d)).

> emission factors and emission calculations is included in the application representations that were made during the NSR permit action that authorized these terms and conditions.

RTC at 11. The Petitioners make two points in response. First, the "Petitioners do not disagree that stack testing and emission calculations are often components of a well-designed monitoring protocol," but "disagree that a single stack test by itself or vendor guarantee or AP-42 emission factors without additional parametric monitoring are sufficient to assure compliance with applicable emission caps," for the reasons previously discussed. *Id*. at 26.

Second, the Petitioners assert that TCEQ's "statement that information supporting the applicable monitoring protocol is available in BP's Flexible Permit applications is not helpful." *Id*. As the Petitioners explain, BP Amoco's flexible permit has been revised many times since it was issued. *Id*. (citing Petition Ex. 8). The Petitioners assert:

> It is not reasonable to expect Petitioners to obtain copies of every application BP has submitted related to its Flexible Permit, read them all, and then determine which representation related to source monitoring are still relevant and support the sufficiency of the monitoring methods listed in BP's Flexible Permit. Instead, the permit record for this project must provide a reasoned justification for the Executive Director's determination that monitoring methods in the Proposed Permit assure compliance with all applicable requirements. Because the record does not contain this information, the Proposed Permit is deficient and the Administrator must object to it.

Id.

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

BP Amoco's title V permit incorporates by reference the entirety of Permit No. 1176/PSDTX782, as issued on November 13, 2013, and also appends this permit to the end of the title V permit document. Final Permit at 12 (Special Condition 20), 224. Special Condition 7 of Permit No. 1176/PSDTX782, as incorporated into the title V permit, reads:

> Available stack test data may be used to calculate NOx emissions from those combustion sources less than 100 MMBtu/hr and not equipped with a CEM. If neither continuous emissions monitoring system (CEMS) nor stack test data is available, then vendor guarantees may be used. The AP-42 emission factors may be used for the calculations if no other data is available.

This same condition contains an identical provision for CO from these units.[24] Additionally, Special Condition 15 of Permit No. 1176/PSDTX782 states:

[24] Special Condition 9, also cited by the Petitioners, concerns CEMS for larger units ($\geq$100 MMBtu/yr).

> The holder of this permit shall perform stack sampling and other testing as required by February 28, 2003, to establish the actual pattern and quantities of NOx and CO being emitted into the atmosphere from the combustion units associated with this permit that are greater than 40 MMBtu/hr, less than 100 MMBtu/hr, do not have a CEMS, and have not been stack tested within five years of the date of this permit. This will be a one-time stack test to establish emission factors for sources that are not utilizing a CEM.

The EPA agrees that the 2013 version of Permit No. 1176/PSDTX782 (*i.e.*, the version currently incorporated into the title V permit) is not clear about which of the available monitoring options BP Amoco must follow for the units at issue in this claim. However, if Special Conditions 7 and 15 are read together, it does seem clear that, at minimum, BP Amoco is required to calculate emissions using emission factors derived from an initial stack test.[25] Accordingly, the Petitioners' concerns regarding the use of vendor guarantees or AP-42 emission factors do not appear particularly relevant to this claim. However, the Petitioners' concerns related to the sufficiency of stack testing are still relevant, as is their overarching claim that the permit record does not justify the sufficiency of the monitoring included in the Permit. Not only are they relevant, but these portions of the Petitioners' claims are persuasive and demonstrate that the current title V permit does not contain sufficient monitoring to assure compliance with applicable emission limits.

Considering the terms currently incorporated into the facility's title V permit (*i.e.*, those contained in the 2013 version of Permit No. 1176/PSDTX782) the relevant monitoring can be summed up as a one-time stack test completed prior to 2003, with the resulting emission factor used to calculate both short-term and annual emissions. This is problematic for multiple reasons. For one, it does not actually mandate *any* periodic monitoring after the initial stack test, such as additional stack testing or the periodic monitoring of operating parameters indicative of emissions. Moreover, the Permit neither identifies the emission factor nor references where it can be found. *U.S. Steel II Order* at 9–12. Additionally, the Permit does not specify the methodology to be used to calculate emissions, including the time frame of emission calculations or what parameters or variables might go into this calculation. Accordingly, the 2013 version of Permit No. 1176/PSDTX782 and, by extension, the title V permit incorporating it, does not contain periodic monitoring sufficient to assure compliance with the relevant hourly and annual emission limits.

The Petitioners' public comments squarely raised these issues for TCEQ's consideration and response. *See* Petition Ex. 1, EIP Comments at 5–6. In response, TCEQ remarked generally that stack testing and emission calculations are "accepted protocols." However, this response provides no explanation for why the state considers the specific monitoring required by the Permit to be sufficient to assure compliance with the NOx and CO limits at issue. That is, this vague response fails to justify the use of emission factors derived from a nearly two-decade old stack test to predict the units' current emissions (*i.e.*, why periodic stack testing or parametric monitoring is not necessary).

[25] This understanding is confirmed by the 2020 version of Permit No. 1176/PSDTX782, which further specifies that the facility will monitor fuel flow and firing rates and calculate NOx and CO emissions using stack test data.

Instead of providing technical justifications, TCEQ's RTC redirected the public as follows: "The rationale for the emission factors and emission calculations is included in the application representations that were made during the NSR permit action that authorized these terms and conditions." RTC at 11. This cursory reference to an unspecified permit application is not enough to justify the sufficiency of monitoring, nor to adequately respond to significant public comments questioning the same. TCEQ's response leaves the public—and for that matter, the EPA—in the dark about where to look, and what to look for.[26] Moreover, a justification provided by a permittee in a permit application should not substitute for the judgement of the permitting authority (TCEQ) with responsibility for ensuring that a title V permit contains sufficient monitoring to ensure compliance. If TCEQ wishes to adopt and incorporate an applicant's technical justification for specific monitoring into the current title V permit record, it must, at minimum, identify specifically where such a justification is to be found (just as it would be required to do it if wished to incorporate by reference a requirement located elsewhere). See the EPA's response to Claim B.4.

The EPA is not suggesting that TCEQ must go out of its way to explain the technical basis for every condition of every permit it has issued to a source every time it renews a title V permit. However, when the state receives public comments raising legitimate challenges to the sufficiency of a monitoring provision, the EPA expects TCEQ to engage with these comments and explain the basis for its decisions (or specifically identify where any prior justification may be found). Because neither TCEQ's RTC nor any other portion of the permit record clearly explain the basis for TCEQ's conclusion that the monitoring associated with Units HF-204 and HF-601 assures compliance with the relevant NOx and CO limits in Permit No. 1176/PSDTX782, the EPA grants this claim. 40 C.F.R. §§ 70.7(a)(5), 70.8(a)(1)(i), 70.8(c)(3)(ii).

Direction to TCEQ: TCEQ must amend the title V permit and/or permit record to ensure that the title V permit contains sufficient monitoring to assure compliance with the relevant NOx and CO limits in Permit No. 1176/PSDTX782. TCEQ could add additional monitoring requirements directly to BP Amoco's title V permit, or it could add such monitoring requirements to Permit No. 1176/PSDTX782 and then promptly revise the title V permit to incorporate the updated version of Permit No. 1176/PSDTX782. In either case, as discussed further with respect to Claim B.4, the *title V permit* must ultimately contain the necessary monitoring in order to resolve the EPA's objection.

The EPA observes that when TCEQ renewed Permit No. 1176/PSDTX782 in 2020, it included a new attachment (Attachment E) addressing monitoring requirements applicable to the units

[26] As the Petitioners suggest, this is no simple task for a permit like Permit No. 1176/PSDTX782, which has been revised numerous times. Although the 2013 version of this permit includes a date next to some permit terms indicating the last time that a permit term was revised, it is unclear whether the application associated with the initial establishment of the term, or the latest revision, or something in between, might contain the information that TCEQ deems relevant. Moreover, the 2020 version of this permit no longer includes these date references, further obscuring the location of any potentially relevant application representations.

implicated by Claim B.1.[27] Specifically, with respect to both NOx and CO emissions from units HF-204 and HF-601, the latest version of Attachment E now identifies the following monitoring: "Continuously monitor the fuel flow and firing rates," and the following short-term and annual emission rates calculations: "Fuel firing rate and stack test data." Permit No. 1176/PSDTX782, Att. E, page 4 (May 15, 2020). Considering these additions, the monitoring regime for the units at issue now consists of a one-time stack test completed prior to 2003 (used to develop an emission factor), followed by continuous monitoring of fuel flow and firing rates. Notably, this monitoring regime has not yet been incorporated into the title V permit.

If TCEQ determines that this updated monitoring regime is sufficient to assure compliance with the relevant NOx and CO limits on Units HF-204 and HF-601, it must provide (or clearly reference) this justification within the title V permit record when it revises the title V permit to include the newest version of Permit No. 1176/PSDTX782. This justification should address the issues identified in the public comments and in the EPA's response to this claim. As with other changes that TCEQ will make to the Permit and/or permit record, any such decision would be subject to EPA review and the public's opportunity to petition.

Claim B.2: Monitoring of VOC and benzene from flares

Petitioners' Claim: The Petitioners claim that the monitoring associated with VOC and benzene emissions from three steam assisted flares (Units FL-201, FL-401, and FL-351) does not reliably determine emissions in mass per unit of time and is insufficient to assure compliance with multi-unit emission caps established by Permit No. 1176/PSDTX782. Petition at 16–17, 18. Specifically, the Petitioners note that Permit No. 1176/PSDTX782 establishes the following limits on emissions from these three flares (along with various other units): 261.23 lbs/hr VOC, 321.29 TPY VOC; 19.67 lb/hr benzene; 29.71 TPY benzene. *Id*. at 16. The Petitioners assert that the Permit fails to assure compliance with these VOC and benzene emission limits because it allows BP Amoco to assume a 98 percent destruction efficiency for flare VOC[28] emissions but does not contain requirements that ensure this 98 percent destruction efficiency will be achieved. *Id*. at 17 (citing Permit No. 1176/PSDTX782, Special Condition 8).

The Petitioners assert that current operational standards—specifically, the Petitioners mention the presence of a pilot light—do not ensure that the BP Amoco flares will continuously achieve the presumed destruction efficiency. *Id*. For support, the Petitioners cite an EPA study that, according to the Petitioners, found that flares complying with requirements equivalent to those in BP Amoco's permit only achieved an average VOC destruction efficiency of 93 percent. *Id*. at 17–18 (citing Petroleum Refinery Sector Rule: Flare Impact Estimates, EPA-HQ-OAR-2010-0682-0209 at 9 (January 16, 2014)).

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[27] *See* Permit No. 1176/PSDTX782, Source Analysis and Technical Review, Page 6 (April 6, 2020) (describing Attachment E as a "New attachment with Monitoring and Calculation Methods as Represented"). This attachment was further revised in May 2020. *See* Permit No. 1176/PSDTX782, Source Analysis and Technical Review, Page 1 (May 29, 2020) ("HF-601, NOx monitoring: Stack testing should not be represented within the NOx column. Previously performed stack testing data (emission factor), fuel flow, and calculations are used for on-going monitoring.").

[28] Although the Petitioners reference both VOC and benzene emissions within this claim, the relevant monitoring provisions only reference VOC emissions and most portions of the Petition also refer only to VOC emissions.

The Petitioners claim that "additional monitoring requirements" are necessary to address problems that are known to reduce destruction efficiency, like over-steaming, excess aeration, high winds, and flame liftoff. *Id*. at 17. The Petitioners challenge TCEQ's contention that there are no currently available EPA-approved mechanisms for testing or monitoring emissions from a flare, and assert that the "EPA has approved monitoring requirements that ensure that flares meet 98-percent destruction efficiency at all times." *Id*. at 28. The Petitioners refer to requirements in 40 C.F.R. § 63.670, promulgated in the Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards, 80 Fed. Reg. 75178, 75211 (December 1, 2015). Moreover, the Petitioners note inconsistencies in TCEQ's RTC, where TCEQ acknowledged these additional requirements for flares, and suggested that the monitoring requirements in Permit No. 1176/PSDTX782 are consistent with the cited 2015 rules for petroleum refineries. The Petitioners challenge this suggestion and assert that the permit does not require BP Amoco to comply with the combustion zone operating limits (and other operating limits) established in that rule in order to assure 98 percent VOC destruction efficiency. *Id*. at 28–29.

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

The Petitioners have demonstrated that neither the title V permit nor Permit No. 1176/PSDTX782 assures that BP Amoco will achieve the 98 percent destruction efficiency assumption embodied in Special Condition 8 of Permit No. 1176/PSDTX782, and accordingly that the title V permit does not include monitoring to assure compliance with the VOC emission limits that are based on that assumption.

In relevant part, the permit provides: "The VOC destruction efficiency of 98 percent shall be used to calculate VOC emissions" associated with routine flare emissions. Permit No. 1176/PSDTX782, Special Condition 8 (November 13, 2013).[29]

In responding to public comments challenging this destruction efficiency assumption, TCEQ discussed various requirements in the EPA's part 60 General Provisions, 40 C.F.R. § 60.18,[30] which TCEQ determined "to be sufficient to yield reliable data to assure compliance with the terms and conditions of the permit regarding *visible* emissions from flares during normal operations." RTC at 12 (emphasis added). Permit No. 1176/PSDTX782 includes these requirements from the part 60 General Provisions; specifically, requirements to maintain a minimum heating value of the combined waste stream and assist natural gas, to not exceed a maximum tip velocity value, to ensure the continuous presence and monitoring of a flame or pilot flame, and to operate with no visible emissions. *See* Permit No. 1176/PSDTX782, Special Condition 4 (November 13, 2013).[31] Additionally, and as TCEQ explained, this permit requires the installation and operation of a continuous flow monitor and composition analyzer that provides a record of the vent stream flow and composition to the flare. *Id*., Special Condition 4.D. TCEQ asserted that these requirements "are consistent with the revised refinery sector rule" cited by the Petitioners, and stated: "TCEQ is not aware of any facts that would compel

[29] In the more recent April 6 and May 29, 2020 versions of Permit No. 1176/PSDTX782 (not yet incorporated into the facility's title V permit), this condition was moved to Special Condition 10.
[30] Similar requirements are included in the part 63 General Provisions. *See* 40 C.F.R. § 63.11(b).
[31] This condition is Special Condition 5 in the April 6 and May 29, 2020 versions of Permit No. 1176/PSDTX782.

additional monitoring beyond that which has been consistently required under federal law and in Texas permits over the past several decades, especially in the absence of any EPA- or TCEQ-approved methods for monitoring flare emissions." RTC at 12–13.

The terms of Permit No. 1176/PSDTX782, and TCEQ's response, do not directly address the issues raised by public commenters (and in the Petition) that are known to reduce flare combustion efficiency.[32] This is problematic because certain types of flares at certain types of sources—including the steam-assisted flares at BP Amoco's chemical plant—are susceptible to certain performance problems that reduce VOC destruction efficiency below 98 percent.

The EPA, like TCEQ, historically presumed that the requirements contained in the part 60 and 63 General Provisions for flares (specifically, 40 C.F.R. § 60.18 and 63.11(b)) would be sufficient to assure a 98 percent VOC destruction efficiency. However, as the Petitioners correctly note, the EPA has discovered that this is not universally true, primarily because the General Provisions do not account for certain problems that can reduce combustion efficiency, such as those caused by excess steam or air assistance to the flare. As the EPA has explained for flares at petroleum refineries:

> In general, flares used as [air pollution control devices] were expected to achieve 98-percent HAP destruction efficiencies when designed and operated according to the requirements in the General Provisions. Recent studies on flare performance, however, indicate that these General Provisions requirements are inadequate to ensure proper performance of refinery flares, particularly when assist steam or assist air is used. Over the last decade, flare minimization efforts at petroleum refineries have led to an increasing number of flares operating at well below their design capacity, and while this effort has resulted in reduced flaring of gases at refineries, situations of over-assisting with steam or air have become exacerbated, leading to the degradation of flare combustion efficiency.
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> In 2012, the EPA compiled information and test data collected on flares and summarized its preliminary findings on operating parameters that affect flare combustion efficiency (see technical report, Parameters for Properly Designed and Operated Flares, in Docket ID Number EPA-HQ-OAR-2010-0682). The EPA submitted the report, along with a charge statement and a set of charge questions to an external peer review panel. The panel concurred with the EPA's assessment that three primary factors affect flare performance: (1) The flow of the vent gas to the flare; (2) the amount of assist media (e.g., steam or air) added to the flare; and (3) the combustibility of the vent gas/assist media mixture in the combustion zone (i.e.,

[32] This is despite the fact that public commenters specifically requested: "To the extent that the Executive Director disagrees with the study Commenters [c]ite or EPA's findings regarding flare emissions discussed in the recently proposed refinery NESHAP rule, or believes that these findings are inapplicable to BP's flares, Commenters request that he explain the basis for that determination and *explain how monitoring requirements in the Draft Permit will prevent over steaming* and other factors that are known to reduce flare destruction efficiency." Petition Ex. 1, EIP Comments at 8 (emphasis added).

> the net heating value, lower flammability, and/or combustibles concentration) at the flare tip.
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> The current requirements for flares in the General Provisions specify that the flare vent gas must meet a minimum net heating value of 200 British thermal units per standard cubic foot (Btu/scf) for non-assisted flares and 300 Btu/scf for air- and steam-assisted flares. [The prior refinery regulations] reference these requirements, but neither the General Provisions nor [the prior refinery rules] include specific monitoring requirements to monitor the net heating value of the vent gas. Moreover, recent flare testing results indicate that this parameter alone does not adequately address instances when the flare may be over-assisted since it only considers the gas being combusted in the flare and nothing else (e.g., no assist media). However, many industrial flares use steam or air as an assist medium to protect the design of the flare tip, promote turbulence for the mixing, induce air into the flame and operate with no visible emissions. Using excessive steam or air results in dilution and cooling of flared gases and can lead to operating a flare outside its stable flame envelope, reducing the destruction efficiency of the flare. In extreme cases, over-steaming or excess aeration can actually snuff out a flame and allow regulated material to be released into the atmosphere completely uncombusted. Since approximately 90 percent of all flares at refineries are either steam- or air-assisted, it is critical that we ensure the assist media be accounted for in some form or fashion. Recent flare test data have shown that the best way to account for situations of over-assisting is to consider the properties of the mixture of all gases at the flare tip in the combustion zone when evaluating the ability to combust efficiently. As discussed in the introduction to this section, the external peer review panel concurred with our assessment that the combustion zone properties at the flare tip are critical parameters to know in determining whether a flare will achieve good combustion. The General Provisions, however, solely rely on the net heating value of the flare vent gas.

79 Fed. Reg. 36879, 36905, 36907 (August 29, 2014).

Notably, much of the early awareness of this issue came from research conducted by TCEQ. As the state has explained:

> In the fall of 2010, TCEQ funded a research project on flare destruction and removal efficiency (DRE) at a flare-test facility. The results demonstrated that air-assisted and steam-assisted flares must operate within a very limited range of assist rates to achieve the assumed DRE of 98 percent or greater. This project also demonstrated that operating an assisted flare in compliance with 40 CFR 60.18 does not ensure that the flare will achieve 98 percent DRE. Flare assist rates and other operating information must be reviewed and assessed to determine whether a flare may be operating at assist ranges that do not achieve the 98 percent DRE. When operating in a low-flow routine condition, a dual-service flare can easily be over-

> assisted, resulting in a DRE below the assumed 98 percent. The final report and additional project information are at www.tceq.texas.gov/goto/2010-flare-study.

E.g., TCEQ, 2020 Emissions Inventory Guidelines, RG-360/20 at 135 (January 2021).[33]

Thus, the fact that a permit incorporates requirements from the EPA's General Provisions does not necessarily guarantee that the source achieves a 98 percent VOC destruction efficiency. For certain types of flares and/or vent gases, the General Provisions (combined with the relevant NSPS or NESHAP standard)[34] may be sufficient. However, for others that are susceptible to over-assistance—like the steam-assisted flares at BP Amoco that control vent gases similar in composition to those at refineries—these requirements likely are not sufficient.

Based on information gathered by EPA, TCEQ, and others, the EPA has been systematically evaluating and, where sufficient information exists, updating its regulations on a source category-by-source category basis to include additional requirements to address problems related to over-assistance (among other issues).[35] The EPA first focused its attention on the petroleum refining sector. The EPA promulgated regulations for petroleum refineries (regulated under 40 C.F.R. part 63, subpart CC) designed to assure that steam-and air-assisted flares actually achieve a 98 percent VOC destruction efficiency. These regulations require that flares meet a minimum operating limit of 270 BTU/scf on a 15-minute block period basis. 40 C.F.R. § 63.670(e).[36] Importantly, and unlike prior sector-specific rules and the General Provisions, this heating value reflects the net heating value in the combustion zone (NHVcz) (that is, the flare tip), *after* the addition of any assist gas (steam or air) and supplemental fuel. *See id*. § 63.670(m) (calculation methods for NHVcz). This better accounts for any degradation in combustion efficiency that might be caused by dilution of the BTU value by the assist gas. To support this operational limit, the refinery regulations require, for steam- and air-assisted flares, that "the owner or operator shall install, operate, calibrate, and maintain a monitoring system capable of continuously measuring, calculating, and recording the volumetric flow rate of assist air and/or assist steam used with the flare," or certain alternative options. *Id*. § 63.670(i).

The EPA's conclusions were not limited to flares at refineries.[37] The EPA has promulgated similar regulations for flares located in the ethylene production source category (regulated under part 63, subpart YY) as well as certain facilities emitting ethylene oxide or producing olefins or

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[33] Similar or identical conclusions have been included in TCEQ publications dating back to at least 2012. *See* TCEQ, 2011 Emissions Inventory Guidelines, RG-360/11 at A-51 to A-52 (February 2012).

[34] The relevant part 60 and 63 General Provisions provide: "Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices." 40 C.F.R. § 60.18(d); *see id*. § 63.11(b)(1).

[35] The EPA has also engaged in numerous compliance assistance and enforcement activities related to this issue. *See, e.g.*, EPA Office of Enforcement and Compliance Assurance, Enforcement Alert, EPA 325-F-012-002 (August 2012).

[36] The EPA explained in its final rule: "Based on the results of all of our analyses, the EPA is finalizing a single minimum NHVcz operating limit for flares subject to the Petroleum Refinery MACT standards of 270 BTU/scf during any 15-minute period. The agency believes, given the results from the various data analyses conducted, that this operating limit is appropriate, reasonable and will ensure that refinery flares meet 98-percent destruction efficiency at all times when operated in concert with the other suite of requirements refinery flares need to achieve (*e.g.*, flare tip velocity requirements, visible emissions requirements, and continuously lit pilot flame requirements)." 80 Fed. Reg. 75178, 75211 (December 1, 2015).

[37] The EPA's conclusions also do not necessarily extend to all flares used in every industry.

polyolefins (regulated under the Miscellaneous Organic Chemical Manufacturing NESHAP in part 63, subpart FFFF). 40 C.F.R. §§ 63.1103(e)(4), 63.2450(e)(5).[38] The EPA has not yet revised the Hazardous Organic NESHAP (HON)—the relevant standard to which BP Amoco's chemical plant is subject—to address these issues. However, the EPA will likely consider flare VOC destruction efficiency (among other issues) in the Agency's next technology review of the HON.[39]

In the meantime, the EPA has sufficient data concerning steam-assisted flares like those used at BP Amoco's chemical plant to conclude that the Petitioners are correct in asserting that the Permit, as currently written, does not assure that BP Amoco's steam-assisted flares will achieve a 98 percent VOC destruction efficiency. As previously explained, the requirements in the EPA's General Provisions, as reflected in Permit No. 1176/PSDTX782, are not enough to assure a 98 percent VOC destruction efficiency at all steam assisted flares because those requirements do not account for issues related to over-steaming that are known to reduce flare destruction efficiency. To TCEQ's credit, the Permit *does* impose requirements beyond those required by the EPA's General Provisions (and the applicable NSPS and NESHAP subparts)—specifically, requirements for a continuous flow monitor and a composition analyzer of the vent gas heading to the flare. However, TCEQ is incorrect to suggest that "the visible emission monitoring, pilot flame monitoring, composition flow meter, and composition analyzer requirements" are consistent with those imposed in the part 63, subpart CC refinery sector rule in order to ensure 98 percent VOC destruction efficiency. RTC at 13. Notably, Permit No. 1176/PSDTX782 lacks other essential elements of that rule, such as the monitoring of assist steam flow rates (among other things) and the calculation of the net heating value of gas in the combustion zone. 40 C.F.R. § 63.670(i), (m). As previously explained, monitoring of assist steam is critical to accurately calculating the heating values of the gas combusted at the flare tip, in order to ensure that the steam assist is not reducing flare performance (i.e., VOC destruction efficiency). Because the permit contains no such conditions, and because TCEQ has not described how the existing permit terms ensure the flares meet the 98 percent VOC destruction efficiency assumption in light of the issues described in public comments and in this response, the EPA grants the Petition with respect to this issue.

Direction to TCEQ: The EPA directs TCEQ to evaluate—in light of the technical considerations described in the preceding paragraphs and TCEQ's stated position that "operating an assisted flare in compliance with 40 CFR 60.18 does not ensure that the flare will achieve 98 percent DRE"[40]—to what extent additional monitoring is necessary to ensure that BP Amoco's steam-assisted flares achieve a 98 percent VOC destruction efficiency, and to revise the Permit and/or permit record accordingly.

[38] Although the EPA has extended these requirements to industries beyond petroleum refineries, the EPA has also declined to impose additional requirements on certain types of facilities for which EPA does not have data indicating the same concerns with destruction efficiency. *See* 85 Fed Reg. 49084, 49115–49116 (August 12, 2020) (explaining the EPA's decision not to add similar requirements for certain types of facilities regulated under the MON).
[39] *See* EPA, Office of Inspector General, *EPA Should Conduct New Residual Risk and Technology Reviews for Chloroprene- and Ethylene Oxide-Emitting Source Categories to Protect Human Health*, Report No. 21-P-0129 at 29, 36 (May 6, 2021).
[40] TCEQ, 2020 Emission Inventory Guidelines, RG-360/20 at 135 (January 2021).

Based on experience, the EPA anticipates that, in addition to the provisions already contained within Permit No. 1176/PSDTX782, it will be necessary to monitor the flow and composition of assist steam and any supplemental gases (e.g., natural gas) combusted by the flare, in order to calculate the NHVcz, before presuming that BP Amoco's flares achieve a 98 percent VOC destruction efficiency. To this end, TCEQ should consider adding permit terms mirroring the monitoring and calculation methodologies in the EPA's refinery regulations—specifically, 40 C.F.R. § 63.670(i) and (m).[41] Such a monitoring regime, in conjunction with the existing conditions of Permit No. 1176/PSDTX782, should provide sufficient information to indicate whether the flares are achieving a 98 percent VOC destruction efficiency. To the extent any permit terms require the installation of new monitoring equipment, TCEQ could provide a reasonable lead time before such equipment is operational to allow for installation and calibration.

TCEQ could either add such monitoring requirements directly to BP Amoco's title V permit, or it could add such monitoring requirements to Permit No. 1176/PSDTX782 and then promptly revise the title V permit to incorporate the updated version of Permit No. 1176/PSDTX782.[42] In either case, as discussed further with respect to Claim B.4, the *title V permit* must ultimately contain the necessary monitoring in order to resolve the EPA's objection.

If TCEQ determines that a different approach from the one suggested by the EPA would sufficiently resolve the technical issues identified in the preceding paragraphs, it must provide a justification for this decision within the permit record. As with other changes that TCEQ will make to the Permit and/or permit record, any such decision would be subject to EPA review and the public's opportunity to petition.

Claim B.3: Monitoring of VOC and benzene from tanks

Petitioners' Claim: The Petitioners claim that the monitoring associated with VOC emissions from 17 floating roof storage tanks is insufficient to assure compliance with the multi-unit VOC emission caps established by Permit No. 1176/PSDTX782 (the same emission caps that also apply to flares, as discussed in Claim B.2). Petition at 18. The Petitioners address two permit terms:

First, the Petitioners address Special Condition 6(F), which states:

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[41] Although title V provides permitting authorities like TCEQ with the authority to add monitoring, recordkeeping, and reporting provisions to a title V permit when necessary to assure compliance with existing requirements, 42 U.S.C. § 7661c(c), 40 C.F.R. § 70.6(c), this authority does not necessarily extend to the full suite of operating limits and other requirements relevant to flare performance that the EPA has promulgated via sector-specific rules—*e.g.*, the NHVcz operating limits in § 63.670(e). Accordingly, the EPA is not suggesting that TCEQ would necessarily need to establish all of the operating limits from § 63.670 as independently enforceable operating limits within the title V permit. However, if the relevant monitoring shows that BP Amoco's steam-assisted flares do not comply with the relevant thresholds established by 40 C.F.R. § 63.670, the EPA does not believe it would be appropriate to allow BP Amoco to assume a 98 percent VOC destruction efficiency for purposes of demonstrating compliance with the VOC emission limits established by Permit No. 1176/PSDTX782.

[42] Adding any necessary requirements to a preconstruction permit first may afford TCEQ more flexibility to impose additional operating limits and other conditions (as it deems necessary) that might exceed the scope of its authority to impose additional monitoring under title V. *See supra* note 41.

> For purposes of assuring compliance with VOC emission limitations, the holder of this permit shall monitor monthly tank levels and monthly hours of pumping to establish throughputs for comparison with the total maximum throughput used in the emission cap calculations in the permit application. Maximum hourly pump rate shall be used to calculate short-term emissions in the absence of actual pump rate data. Air Emissions Inventory records including actual emissions for each tank and representative examples of calculation methodology shall be maintained for at least two years. These records shall be made available to representatives of the TCEQ upon request.

Id. (quoting Permit No. 1176/PSDTX782, Special Condition 6(F)). The Petitioners claim this condition is insufficient because the permit doesn not establish maximum throughput limits, and because "monitoring that relies on maximum represented throughputs as a constraint on emissions will under-represent actual emissions in cases where actual throughput exceeds the maximum represented throughput." *Id*. at 19.

Second, the Petitioners address Special Condition 6(H), which states:

> Rolling 12-month emissions for tanks and loading operations shall be calculated consistent with the methodology outlined in: (a) AP-42 "Compilation of Air Pollution Factors, Chapter 12—Storage of Organic Liquids" and (b) the TCEQ publication titled "Technical Guidance Package for Chemical Sources—Storage Tanks."

Id. at 18 (quoting Permit No. 1176/PSDTX782, Special Condition 6(H)). The Petitioners claim this condition is also insufficient to assure compliance with the VOC emission caps, because "the AP-42 emission factors that the permit directs BP to use do not account for site-specific variables such as the age and condition the relevant tanks and operating conditions at the chemical plant." *Id*. at 19. Additionally, Petitioners reference studies identified in public comments that purportedly "demonstrate that AP-42 emission factors may significantly under-predict actual VOC emissions from storage tanks at chemical plants and petroleum refineries" because "leaks and other non-routine operating scenarios like roof landings" regularly occur at sources like BP Amoco, and emissions from these activities are not accounted for by the AP-42 emission factors. *Id*. at 19–20.

The Petitioners characterize as "unsupported" and "conclusory" TCEQ's contention in its RTC that AP-42 is an accepted methodology that often overestimates emissions. *Id*. at 29–30. Accordingly, the Petitioners conclude that the EPA must object to the Permit "because the permit record does not contain a reasoned justification for [TCEQ's] determination that AP-42 emission factors and throughput monitoring required by BP's Flexible Permit assure compliance with applicable emission caps and accurately determine actual VOC and benzene[43] emissions from BP's storage tanks in terms of mass per unit of time." *Id*. at 30.

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

[43] Although the Petitioners reference both VOC and benzene emissions within this claim, the relevant monitoring provisions only reference VOC emissions and most portions of the Petition also refer only to VOC emissions.

The Petitioners challenge BP Amoco's tank monitoring regime on two fronts. First, the Petitioners' insist that allowing the facility to rely on maximum hourly pump rate could underestimate short-term emissions if the actual pump rate exceeds the maximum hourly pump rate. Petition at 19.[44] The Petitioners have provided no evidence to demonstrate that it is technically possible for the facility to exceed the "maximum" pump rate, or accordingly that the general strategy of relying on maximum pump rate is inappropriate here. Thus, the Petitioners have not provided a basis for EPA to object to the permit on this issue. However, the EPA observes that Permit No. 1176/PSDTX782 does not identify the maximum pump rate or indicate where it can be located. It is possible that the maximum rate is described in a permit application, but the Permit does not specify which application, or where within that application, this maximum pump rate may be located. See the EPA's response to Claim B.4. Although the Petitioners did not specifically identify this problem, the EPA expects TCEQ to address it when it revises the Permit to address the EPA's objection.

Second, the Petitioners challenge the use of AP-42 to calculate tank emissions, arguing that the AP-42 emission factors referenced by the permit do not account for site-specific operating conditions that commonly occur in the operation of tanks like those at the BP Amoco facility. The EPA does not necessarily agree with all of the Petitioners' arguments concerning AP-42 itself,[45] and generally agrees with TCEQ that the equations contained in AP-42 can be an accepted methodology for calculating tank emissions. However, this is contingent on the appropriate use of site-specific inputs, which the AP-42 equations accommodate.[46] Here, the Petitioners have demonstrated that the method by which the Permit incorporates the AP-42 equations does not fully account for these site-specific operating conditions. Permit No. 1176/PSDTX782 (and, by extension, the title V permit) does not appear to contain any terms requiring BP Amoco to monitor or keep records of the inputs necessary to ensure that the AP-42 equations yield accurate emission estimates, such as the temperature and vapor pressure of the liquids stored in these tanks.[47] Accordingly, the EPA grants this claim to the extent it relates to the use of AP-42 equations to calculate VOC emissions from the storage tanks.

Direction to TCEQ: TCEQ must ensure that the Permit contains monitoring and recordkeeping of the appropriate site-specific operating conditions that are used as inputs, in order to ensure that

[44] This portion of the claim seems restricted to BP Amoco's compliance with the short-term emission limits, as the permit clearly requires monitoring of actual throughput for purposes of demonstrating compliance with the longer-term limits. Permit No. 1176/PSDTX782, Special Condition 6(F).

[45] For example, contrary to the Petitioners' claim that AP-42 does not account for emissions from "leaks and other non-routine operating scenarios like roof landings," Petition at 19–20, AP-42 does now account for emissions from roof landings. *See* AP-42, Section 7.1.3.3 (June 2020). Moreover, Permit No. 1176/PSDTX782 contains additional provisions specifically pertaining to tank roof landings, which the Petitioners did not address. *See* Permit No. 1176/PSDTX782, Special Condition 25 (November 13, 2013).

[46] *See* EPA Office of Enforcement and Compliance Assurance, Enforcement Alert, EPA 325-N-20-001 at 2–3 (November 2020). Comparative studies using remote measurement methods have shown reasonable agreement between AP-42 and the measured emissions from tanks that are not defective, provided accurate site-specific information is used as an input to these equations.

[47] The EPA observes that TCEQ has included the requirements to keep records of relevant tank parameters in permits issued to other facilities. *E.g.*, Permit No. 18287/PSDTX730M4/PAL7 for the ExxonMobil Baytown Refinery, Special Condition 14(E); *In the Matter of ExxonMobil Baytown Refinery*, Order on Petition No. VI-2016-14 at 25–28 (April 2, 2018) (denying a petition claim challenging such conditions).

the AP-42 equations yield reliable emissions estimates for VOC tank emissions. Additionally, to the extent that either these AP-42 equations or other compliance demonstration methodologies related to tank emissions rely on certain set or assumed values (e.g., the use of maximum pump rates) identified in a permit application, TCEQ must amend the permits to specifically identify the location of such values. See the EPA's response to Claim B.4. TCEQ could either add such monitoring requirements directly to BP Amoco's title V permit, or it could add such monitoring requirements to Permit No. 1176/PSDTX782 and then promptly revise the title V permit to incorporate the updated version of Permit No. 1176/PSDTX782. In either case, as discussed further with respect to Claim B.4, the *title V permit* must ultimately contain the necessary monitoring in order to resolve the EPA's objection. As with other changes that TCEQ will make to the Permit and/or permit record, any such decision would be subject to EPA review and the public's opportunity to petition.

Claim B.4: Monitoring of PM from cooling towers

Petitioners' Claim: The Petitioners claim that the monitoring associated with PM10 emissions from two cooling towers (Units CT-351 and CT-451) is insufficient to assure compliance with emission caps established by Permit No. 1176/PSDTX782. Petition at 20. Specifically, the Petitioners note that Permit No. 1176/PSDTX782 establishes the following limits on emissions from the cooling towers (along with combustion units): 9.06 lbs/hr PM10; 39.68 TPY PM10. *Id*. at 16. The Petitioners contend that the Permit does not specify *any* monitoring or testing requirement to determine PM10 emissions from the two cooling towers. *Id*. at 20. Accordingly, the Petitioners conclude that the Permit does not include monitoring to accurately determine emissions in terms of mass per unit of time and that it fails to assure compliance with these PM10 emission limits. *Id*. at 20–21.

The Petitioners also address TCEQ's RTC, which stated:

> [TCEQ]disagrees that a protocol for PM10 monitoring is not included for BP's cooling towers CT-351 and C-451 in NSR permit 1176/PSDTX782. [Special Condition] 5 states, "The holder of this permit shall keep records maintained on-site to demonstrate compliance with the annual TPY emission limits specified by the flexible permit for the following compounds: NOx, CO, PM, SO2, and VOC.["] The application representations for the cooling towers were made during the NSR permit action.
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> The applicant has submitted a renewal application for NSR permit 1176 (project 176209). During review of project 176209, [TCEQ] has preliminarily determined that for cooling towers, additional monitoring to demonstrate compliance with particulate matter emission limits for the cooling towers is beneficial. When a minor NSR permit lacks sufficient monitoring for an existing facility, [TCEQ]'s current practice is to insert additional monitoring requirements into the NSR permit at the time the permit is renewed. In this situation [TCEQ] believes a similar approach is appropriate.

RTC at 13–14. The Petitioners contest TCEQ's reference to a "protocol" for monitoring PM emissions, asserting that the requirement to maintain records demonstrating compliance is not itself a monitoring protocol. Petition at 31 (citing *U.S. Steel I Order* at 7–8). Moreover, the Petitioners claim that TCEQ does not describe the protocol or identify any information in the permit record that establishes a monitoring protocol. *Id*. The Petitioners also note that the condition referenced by TCEQ only addresses annual PM10 emissions and does not require a demonstration of compliance with the hourly PM10 emission limits. *Id*.

The Petitioners express appreciation that TCEQ planned to improve the monitoring provision in BP Amoco's flexible permit renewal, but claim that this does not excuse TCEQ from its obligation to assure that the title V permit includes conditions necessary to assure compliance with all applicable requirements. *Id*. at 32 (citing 42 U.S.C. § 7661c(a), (c)).

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 current title V permit, which incorporates the 2013 version of Permit No. 1176/PSDTX782, does not contain monitoring sufficient to assure compliance with the relevant PM10 limits on the cooling towers.

It is TCEQ's responsibility, as the title V permitting authority, to ensure that the title V permit "set[s] forth" monitoring sufficient to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(c); *see id*. § 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); 30 TAC 122.142(c).[48] However, the only provision in the 2013 version of Permit No. 1176/PSDTX782 that addresses PM emissions from the cooling towers is Special Condition 13,[49] which requires, in relevant part: "The holder of this permit shall keep records maintained on-site to demonstrate compliance with the annual TPY emission limits specified by the flexible permit for the following compounds: NOx, CO, PM, SO2, and VOC." Permit No. 1176/PSDTX782, Special Condition 13 (November 13, 2013). This could hardly be described as a "monitoring protocol" for PM from the cooling towers, as TCEQ suggests in its RTC. RTC at 13.[50] The open-ended recordkeeping requirement in Special Condition 13 does not specify any particular protocol that BP Amoco is required to

[48] 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."); 30 TAC § 122.142(c) ("Each permit shall *contain* periodic monitoring requirements that are sufficient to yield reliable data from the relevant time period that are representative of the emission unit's compliance with the applicable requirement, and testing, monitoring, reporting, or recordkeeping sufficient to assure compliance with the applicable requirement.") (all emphasis added).

[49] TCEQ's RTC refers to Special Condition 5 but quotes a passage from Special Condition 13. Special Condition 5 does specify a monitoring methodology for the two cooling towers at issue, but this only applies to VOC emissions, not PM emissions, and is therefore not relevant to this claim.

[50] Although the requirement to maintain records of relevant parameters may constitute sufficient monitoring in certain cases, any such recordkeeping must be sufficient to assure compliance with the relevant limits. 40 C.F.R. § 70.6(a)(3)(i)(B).

follow, but instead leaves the decision about what recordkeeping will be sufficient entirely to the source's discretion. Because neither this general permit term nor any other permit terms specific to the cooling towers require BP Amoco to follow a particular monitoring or recordkeeping methodology, the title V permit cannot be said to "set forth" monitoring sufficient to assure compliance.[51] Moreover, this permit term contains no assurance that the monitoring or recordkeeping selected by the source will, as a technical and legal matter, be sufficient to ensure compliance. Because the permit does not specify any particular monitoring or recordkeeping requirement, neither the public nor the EPA can ascertain from the permit what monitoring or recordkeeping methodology the source has elected to use, or whether this 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).

TCEQ's RTC also indicates: "The application representations for the cooling towers were made during the NSR permit action." RTC at 13. This appears to be a suggestion that, notwithstanding the permit's silence as to the required monitoring of PM from cooling towers, a representation within BP Amoco's permit application may discuss the monitoring the source has elected to perform. Even assuming this were the case (the EPA cannot tell from the permit record provided by TCEQ), it would not suffice to satisfy the statutory mandate that title V permits "set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions," 42 U.S.C. § 7661c(c), for the following reasons.

The EPA understands that TCEQ's EPA-approved regulations provide that sources in Texas are bound by representations made in their applications for NSR permits, such that these application representations can become legally enforceable.[52] However, the fact that application representations may be legally enforceable in Texas has little to no bearing on whether these representations are properly "set forth," "included," or "contained" in a title V permit, as required by the Act, the EPA's regulations, and TCEQ's EPA-approved regulations. *E.g.*, 42 U.S.C. § 7661c(c).[53] That is, a source's obligation to independently comply with a requirement to which it is subject—whether it be contained in a NSPS, NESHAP, SIP, court-approved Consent Decree, NSR permit, or NSR permit application representation—does not inherently or automatically result in that requirement being included in a title V permit. For a requirement to be included in a title V permit, the permit must include it.

To be sure, this "setting forth," "including," or "containing" may, in certain circumstances, be accomplished by incorporating requirements like application representations into the title V

[51] As discussed with respect to Claim B.5, there may be circumstances where a more permissive approach to monitoring and recordkeeping is appropriate, such as for insignificant emission units subject to general requirements.
[52] *See* 30 TAC § 116.116(a) ("The following are the conditions upon which a permit, special permit, or special exemption are issued: (1) representations with regard to construction plans and operation procedures in an application for a permit, special permit, or special exemption; and (2) any general and special conditions attached to the permit, special permit, or special exemption itself.").
[53] *See supra* note 48.

permit by reference (or even by incorporating them into a NSR permit that is then incorporated by reference into the title V permit).[54] Incorporation by reference is known as "IBR."

In order for something to be incorporated by reference, one must first *reference* it. As the EPA has explained:

> Information that would be . . . incorporated by reference into the issued permit must first be currently applicable and available to the permitting authority and public. . . . Referenced documents must also be specifically identified. Descriptive information such as the title or number of the document and the date of the document must be included so that there is no ambiguity as to which version of which document is being referenced. Citations, cross references, and incorporations by reference must be detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation. Where only a portion of the referenced document applies, applications and permits must specify the relevant section of the document. Any information cited, cross referenced, or incorporated by reference must be accompanied by a description or identification of the current activities, requirements, or equipment for which the information is referenced.

White Paper Number 2 at 37. Additionally, the EPA explained:

> Incorporation by reference in permits may be appropriate and useful under several circumstances. Appropriate use of incorporation by reference in permits includes referencing of test method procedures, inspection and maintenance plans, and calculation methods for determining compliance. One of the key objectives Congress hoped to achieve in creating title V, however, was the issuance of comprehensive permits that clarify how sources must comply with applicable requirements. Permitting authorities should therefore balance the streamlining benefits achieved through use of incorporation by reference with the need to issue comprehensive, unambiguous permits useful to all affected parties, including those engaged in field inspections.

Id. at 38.

IBR is a prominent feature of TCEQ's title V program. When the EPA approved the Texas title V program, the EPA balanced the streamlining benefits of IBR against the value of a more detailed title V permit and approved TCEQ's use of IBR for minor NSR requirements, provided the program was implemented correctly. *See* 66 Fed. Reg. 63318, 63321–32 (December 6, 2001).[55] In its program approval, the EPA indicated that monitoring specified in the *terms and*

[54] *See generally* White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program, 36–41 (March 5, 1996) (*White Paper Number 2*) (explaining how IBR can satisfy the requirements of CAA § 504).
[55] *See also Public Citizen v. EPA*, 343 F.3d 449, 460 (5th Cir. 2003) (upholding the EPA's approval of IBR in Texas; stating "Nothing in the CAA or its regulations prohibits incorporation of applicable requirements by reference. The Title V and Part 70 provisions specify what Title V permits 'shall include' but do not state how the items must be included.").

conditions of a minor NSR permit would be incorporated into the title V permit.[56] The EPA did not suggest that unidentified application representations would be considered to be incorporated by reference into a title V permit. Rather, as far as application representations are concerned, TCEQ's EPA-approved title V regulations expressly require that such representations be identified. *See* 30 TAC § 122.140 ("The only representations in a permit application that become conditions under which a permit holder shall operate are the following: . . . (3) any representation in an application *which is specified in the permit* as being a condition under which the permit holder shall operate." (emphasis added)).

Here, there can be no doubt that BP Amoco's title V permit incorporates by reference Permit No. 1176/PSDTX782 and all the terms and conditions therein.[57] However, it does not follow that all potentially relevant representations from unidentified permit applications underlying various iterations of this NSR permit—some of which may have been superseded by, or conflict with, subsequent permit terms or application representations—are also effectively incorporated by reference into the title V permit. Nothing within the title V permit or Permit No. 1176/PSXTX782 references any application representations related to PM emissions from the cooling towers; application representations are first mentioned in TCEQ's RTC, and there only obliquely. This is not sufficient to satisfy CAA § 504(c) and 40 C.F.R. § 70.6(c)(1). If TCEQ wishes to rely on a source's application representations to satisfy the monitoring requirements of title V, the application representations must be specifically identified in an enforceable permit document.

In the last portion of TCEQ's RTC, the state explained that in the process of separately reviewing the renewal of Flexible Permit No. 1176, it "has preliminarily determined that for cooling towers, additional monitoring to demonstrate compliance with particulate matter emission limits for the cooling towers is beneficial." RTC at 13. Notwithstanding this concession that the monitoring contained in the current NSR permit—and, by extension, the title V permit that incorporates it—"lacks sufficient monitoring," TCEQ declined to revise the terms of the title V permit. *Id*. Instead, TCEQ explained that its "current practice is to insert additional monitoring requirements into the NSR permit at the time the permit is renewed." *Id*. at 14.

TCEQ's general preference to update underlying NSR permits first before incorporating these permits into a source's title V permit is not inherently problematic. For example, if TCEQ determines in the course of issuing, modifying, or renewing a NSR permit that monitoring within that permit needs to be supplemented, it may certainly make any necessary adjustments in that

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[56] *Id*. at 63324 ("[A]ll the title V permits will incorporate the necessary [monitoring, recordkeeping, and reporting] which will assure compliance with the title V permit, including [minor] NSR and PBR requirements. . . . [U]nder the incorporation by reference process, Texas must incorporate all terms and conditions of the [minor] NSR permits and PBR, which would include emission limits, operational and production limits, and monitoring requirements. We therefore believe that the terms and conditions of the [minor] NSR permits so incorporated are fully enforceable under the full approved title V program that we are approving in this action.").

[57] Special Condition 20 of the title V permit states: "Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, . . . referenced in the New Source Review Authorization References attachment. These requirements: A. Are incorporated by reference into this permit as applicable requirements." Final Permit at 12. Permit No. 1176/PSDTX782 is listed in the New Source Review Authorization References attachment. Final Permit at 224.

NSR permit in the first instance. The source's title V permit would then need to be updated to reflect the new or revised terms of the NSR permit in due course (either within 18 months, or at renewal for permits with a remaining term of less than three years). 42 U.S.C. § 7661a(b)(8); 40 C.F.R. § 70.7(f)(1)(i); 30 TAC § 122.231(a)(1)(C).

However, the EPA disagrees with TCEQ's suggestion that "In this situation [TCEQ] believes a similar approach is appropriate." RTC at 14. When commenters identify deficiencies in a title V permit that TCEQ is proposing to issue, the state cannot acknowledge on one hand that the permit's monitoring needs to be supplemented while refusing to do so until a later time. That is, as the Petitioners correctly note, TCEQ's "current practice" of adding supplemental monitoring first to an underlying permit cannot supplant its obligation to ensure that a title V permit contains sufficient monitoring to assure compliance with all applicable requirements and permit terms *at the time it is issued*. *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008); 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(a), (c); 30 TAC 122.142(c). Because BP Amoco's title V permit does not contain monitoring sufficient to assure compliance with the PM limits relevant to cooling towers, the EPA grants the Petition on this claim.

Direction to TCEQ: TCEQ must ensure that the TV permit includes monitoring sufficient to assure compliance with the emission limits relevant to PM from the cooling towers. The EPA appreciates that TCEQ followed through on its commitment to include more specific monitoring of PM from cooling towers in the 2020 version of Permit No. 1176/PSDTX782.[58] When TCEQ incorporates the 2020 version of Permit No. 1176/PSDTX782 into the title V permit, this should resolve the initial issue identified in this particular petition claim—that is, the lack of any such monitoring identified in the 2013 version of Permit No. 1176/PSDTX782. The EPA reserves judgment as to the sufficiency of these conditions. As with other changes that TCEQ will make to the Permit and/or permit record, any such decision would be subject to EPA review and the public's opportunity to petition when TCEQ incorporates the latest version of Permit No. 1176/PSDTX782 into the title V permit.

Claim B.5: Monitoring associated with PBRs

Petitioners' Claim: The Petitioners claim that the title V permit does not assure compliance with applicable PBRs because it does not include specific monitoring for these requirements as required by 42 U.S.C. § 7661c(a) and (c) and 40 C.F.R. § 70.6(a)(3) and (c)(1). Petition at 11, 21–22. In particular, the Petitioners contend that PBR 30 TAC § 106.472 (9/4/2000) authorizes emissions from more than 79 tanks and loading facilities at BP Amoco. *Id.* at 21. The Petitioners assert that this PBR contains nothing more than a list of chemicals and does not contain any specific monitoring. *Id.* The Petitioners claim that when a PBR rule does not contain specific monitoring, the only monitoring, recordkeeping, or reporting that applies is contained in Special Conditions 21 and 22 of the title V permit, which contain a "non-exhaustive menu of options that BP Amoco may pick and choose from at its discretion to demonstrate compliance." *Id.* at 21. The Petitioners contend that Special Conditions 21 and 22 alone do not satisfy the requirement for all title V permits to "contain monitoring, recordkeeping, and reporting conditions that assure compliance with all applicable requirements." *Id.* at 11, 22 (citing *Wheelabrator Baltimore Order* at 10). Moreover, the Petitioners contend that these provisions are so vague that the EPA

[58] Permit No. 1176/PSDTX782, Special Condition 7 (April 6, 2020) (identical in the May 29, 2020 version).

and the public cannot evaluate "whether the monitoring methods BP Amoco actually uses to determine compliance with PBR requirements are consistent with Title V." *Id.* at 22.

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

Special Condition 21 of the BP Amoco title V permit states:

> The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

Final Permit at 13.

Special Condition 22 of the BP Amoco title V permit states:

> The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Id.

The Petitioners have demonstrated that with regard to the monitoring, recordkeeping, and reporting requirements for PBRs, the BP Amoco title V permit does not assure compliance with the CAA, part 70, and Texas's approved title V program. Specifically, the Petitioners have demonstrated that certain PBRs incorporated by reference into the title V permit do not contain any additional PBR-specific monitoring, recordkeeping, and reporting and rely solely on the general requirements in Special Conditions 21 and 22. Further, the Petitioners have demonstrated that the general list of monitoring, recordkeeping, and reporting options under special conditions 21 and 22 may not be adequate for all PBRs. As explained in the EPA's *Motiva Order*,[59] a streamlined approach to monitoring, such as in Special Conditions 21 and 22, can be appropriate for generally applicable requirements for *insignificant* units. *Motiva Order* at 26; *White Paper*

[59] *In the Matter of Motiva Enterprises, LLC Port Arthur Refinery,* Order on Petition No. VI-2016-23 (May 31, 2018).

Number 2 at 32. However, the EPA cannot determine if any PBRs in the title V permit apply only to insignificant units.

It is TCEQ's responsibility, as the title V permitting authority, to ensure that the title V permit "set[s] forth" monitoring sufficient to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(c); *see id*. § 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); 30 TAC 122.142(c).[60] Special Condition 21 incorporates the general requirements for PBRs found in 30 TAC Chapter 106, Subchapter A. These requirements do not specify any monitoring methods for demonstrating compliance with the emission limits and standards set forth in the PBRs or for the general emission limits found in Subchapter A. Likewise, Special Condition 22 does not specify any particular monitoring requirements and instead allows BP Amoco to select the monitoring, recordkeeping, or reporting it will use to assure compliance. Because neither these generic permit terms nor the PBRs themselves require BP Amoco to follow a particular monitoring or recordkeeping methodology, the title V permit cannot be said to "set forth" monitoring sufficient to assure compliance. 42 U.S.C. § 7661c(c). The Petitioners have demonstrated that the generic Special Conditions 21 and 22 also contain no assurance that the monitoring or recordkeeping selected by the source will, as a technical and legal matter, be sufficient to ensure compliance. Because the Permit does not specify any particular monitoring or recordkeeping requirement, neither the public nor the EPA can ascertain from the Permit what monitoring or recordkeeping methodology the source has elected to use, or whether this 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). Even if the monitoring, recordkeeping, or reporting is eventually specified in a compliance certification, that does not remedy the fact that the title V permit itself still does not include the monitoring, recordkeeping, or reporting.[61] Therefore, the Petitioners have demonstrated that for PBRs authorizing non-insignificant units, Special Conditions 21 and 22 do not contain adequate monitoring, recordkeeping, and reporting requirements that assure compliance with the requirements in each PBR.

Direction to TCEQ: In responding to this order, TCEQ should specify the monitoring, recordkeeping, and reporting that assures compliance with the requirements of the PBRs that apply to non-insignificant units in the BP Amoco title V permit. If any underlying PBRs contain monitoring, recordkeeping, and reporting, TCEQ should identify those PBRs in the permit record and determine if the monitoring in those PBRs is adequate. On the other hand, if any PBRs do not contain any underlying monitoring, recordkeeping, or reporting, like 30 TAC § 106.472, then TCEQ should specify what monitoring, recordkeeping, or reporting will assure compliance with the requirements of those PBRs and the emission limits in 30 TAC 106.4(a)(1) as they apply to units authorized by those PBRs. If the title V permit, Chapter 116 NSR permits, NSPS, NESHAP, or enforceable representations in an application already contain adequate terms to assure compliance with PBRs, then TCEQ should amend the Permit to identify such terms and explain in the permit record how these other requirements assure compliance with the requirements and emission limits for each PBR that applies to significant units. However, if the

[60] *See supra* note 48.
[61] *See* RTC at 14–15. The requirement that a title V permit contain sufficient monitoring and the requirement that sources submit compliance certifications are independent (albeit related) obligations.

title V permit and all enforceable, properly incorporated documents do not contain monitoring, recordkeeping, and reporting sufficient to assure compliance with the PBR requirements, then TCEQ must add such terms to the Permit.

The EPA notes that TCEQ is planning to specify the monitoring for certain PBRs in a PBR Supplemental Table provided by applicants. *See* Letter from Tonya Baer, Deputy Director of Air, TCEQ, to David Garcia, Director, Air and Radiation Division, Region 6, U.S. EPA, *Permits by Rule Programmatic Changes* at 2 (May 11, 2020) (the May 11, 2020 Baer Letter). Specifically, the EPA understands that TCEQ is now requiring title V applicants to fill out the PBR Supplemental Table, which TCEQ will then incorporate into the title V permit through a general condition in the title V permit. *E.g.*, Colorado Bend I Power Title V Permit No. O2887 at 5, Special Condition 7 (March 11, 2021). However, title V applications can be hundreds of (if not over a thousand) pages long, and a search of the TCEQ online database will usually return multiple title V applications for a specific facility that has had multiple revisions and renewals. Thus, a general statement incorporating the PBR Supplemental Table without providing additional information detailing where the table is located is not specific enough to meet the standards related to IBR described with respect to Claim B.4. In order to satisfy the requirement in title V that the Permit "set forth," "include," or "contain" monitoring to assure compliance with all applicable requirements, a special condition incorporating the PBR Supplemental Table would need to include, at minimum, the date of the application and specific location of the table, for example by providing a page number from the application. Alternatively, a more straightforward approach that would obviate these IBR-related concerns would be for TCEQ to directly include (i.e., attach) this PBR Supplemental Table as an enforceable part of the title V permit itself.

Additionally, although this table requires the applicant to specify monitoring, recordkeeping, and reporting for "claimed (not registered)" PBRs, the table does not appear to address monitoring for registered PBRs. For registered PBRs, the EPA understands that TCEQ intends to start having applicants include monitoring in the registration form.[62] However, TCEQ has not indicated how it will appropriately incorporate that monitoring into an enforceable part of the title V permit. The EPA understands that TCEQ's EPA-approved regulations state: "All representations with regard to construction plans, operating procedures, and maximum emission rates in any certified registration under this section become conditions upon which the facility permitted by rule shall be constructed and operated." 30 TAC § 106.6(b). However, the fact that the PBR regulations state that information in the application will be conditions upon which the facility permitted by rule shall be constructed and operated has little to no bearing on whether those provisions are "included" or "contained" in a title V permit, as required by the Act, the EPA's regulations, and TCEQ's EPA-approved regulations. *E.g.*, 42 U.S.C. § 7661c(c).[63] For a requirement to be included in a title V permit, the permit must include it (or properly incorporate it by reference).

As explained with respect to Claim B.4, IBR is a prominent feature of TCEQ's title V program. When the EPA approved the Texas title V program, the EPA balanced the streamlining benefits

[62] TCEQ has stated that it will require applicants to "[u]pdate PBR application representations with monitoring that is sufficient to demonstrate compliance." May 11, 2020 Baer Letter at 3.
[63] *See supra* note 48.

of IBR against the value of a more detailed title V permit and approved TCEQ's use of IBR for PBRs, provided the program was implemented correctly. *See* 66 Fed. Reg. 63318, 63321–32 (December 6, 2001).[64] In its program approval, the EPA indicated that monitoring specified in the *terms and conditions* of a minor NSR permit could be incorporated into the title V permit.[65] The EPA did not suggest that unidentified application representations for minor NSR permits or PBRs would automatically be considered to be incorporated by reference into a title V permit as adequate monitoring, recordkeeping, and reporting. Rather, as far as application representations are concerned, TCEQ's EPA-approved title V regulations expressly require that such representations be identified in the permit itself. *See* 30 TAC § 122.140 ("The only representations in a permit application that become conditions under which a permit holder shall operate are the following: . . . (3) any representation in an application *which is specified in the permit* as being a condition under which the permit holder shall operate." (emphasis added)).

Therefore, TCEQ should include or identify the monitoring, recordkeeping, and reporting from the application forms for registered PBRs (in addition to the claimed but not registered PBRs). With these changes, and provided the PBR Supplemental Table is either included or sufficiently incorporated by reference into the title V permit, the title V permit should include identifiable monitoring, recordkeeping, and reporting necessary to assure compliance with the emission limits and standards in the PBRs.

To the extent that any PBRs apply solely to insignificant units, TCEQ should make those clarifications in the permit and permit record, as necessary, and evaluate whether the general monitoring conditions are or are not sufficient to assure compliance for these insignificant units.[66] The EPA notes that TCEQ has begun including a list of PBRs that only apply to insignificant units in the statement of basis for title V permits. For example, in the statement of basis of title V Permit No. O3027 for Odfjell Terminal Houston, the TCEQ noted that the following PBRs apply only to insignificant units: 30 TAC §§ 106.102, 106.122, 106.141, 106.143, 106.148, 106.149, 106.161, 106.162, 106.163, 106.229, 106.241, 106.242, 106.243, 106.244, 106.266, 106.301, 106.313, 106.316, 106.317, 106.318, 106.319, 106.331, 106.333, 106.372, 106.391, 106.394, 106.414, 106.415, 106.431, 106.432, 106.451, 106.453, 106.471, 106.531. *See e.g.,* Statement of Basis for Draft Title V Permit for Odfjell Terminal Houston at 7–8 (December 20, 2020). The EPA directs TCEQ to make similar clarifications for the BP Amoco title V permit and then determine if the monitoring, recordkeeping, and reporting in Special Conditions 21 and 22 are sufficient for these insignificant units.

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[64] *See supra* note 55.

[65] *Id*. at 63324 ("[A]ll the title V permits will incorporate the necessary [monitoring, recordkeeping, and reporting] which will assure compliance with the title V permit, including [minor] NSR and PBR requirements. . . . [U]nder the incorporation by reference process, Texas must incorporate all terms and conditions of the [minor] NSR permits and PBR, which would include emission limits, operational and production limits, and monitoring requirements. We therefore believe that the terms and conditions of the [minor] NSR permits so incorporated are fully enforceable under the full approved title V program that we are approving in this action.").

[66] The EPA has explained that if a regular program of monitoring, recordkeeping, and reporting for insignificant units would not significantly enhance the ability of the permit to assure compliance with the applicable requirements, general monitoring requirements or even no monitoring can sometimes satisfy title V and 40 C.F.R. § 70.6(a)(3)(i). *See White Paper Number 2* at 32.

Claim C: The Petitioners Claim That "The Proposed Permit's Defective Method of Incorporating [PBR] Requirements by Reference Fails to Assure Compliance with Applicable Requirements."

Petitioners' Claim: The Petitioners raise multiple issues related to the title V permit's incorporation of requirements established by PBRs. The Petitioners claim:

> Generic emission limits established by claimed PBRs and source-specific emission limits contained in BP's certified PBR registrations are not practicably enforceable because (1) the Proposed Permit fails to provide enough information for readers to determine how the generic limits apply to specific units or unit groups at the Texas City Chemical Plant; (2) the Proposed Permit fails to identify which units authorized by PBR are subject to source-specific certified PBR registration limits; and (3) the Proposed Permit fails to incorporate source-specific limits established under 30 Tex. Admin. Code § 106.6.

Petition at 35.

First, the Petitioners claim that the title V permit is unclear as to how much pollution BP Amoco is authorized to emit for each unit under registered and unregistered PBRs because the title V permit is unclear as to how the emission limits from 30 TAC § 106.4 apply when multiple units are authorized by the same PBR. *Id.* at 38. For support, the Petitioners identify 79 tanks as being authorized by PBR 30 TAC § 106.472 (9/4/2000) and assert that the permit does not identify which units were authorized as part of the same project or as part of different projects. *Id.* The Petitioners state, "If each unit was individually authorized, then the combined VOC emissions from the units allowed under § 106.4 would be 1,975 tons per year (25 tons per year * 79 emission units)." *Id.* at 38–39. Therefore, the Petitioners conclude that because the title V permit "is ambiguous as to whether [the units] are authorized to emit 25 tons per year of VOC, 1,975 tons per year of VOC, or some other amount, the [title V permit] fails sufficiently incorporate PBR requirements by reference and does not assure compliance with applicable requirements." *Id.* at 39. In addition, the Petitioners claim that the issue of unclear emission limits for PBRs is complicated by the fact that many PBRs affect emission units already covered by major and minor source case-by-case NSR permits under 30 TAC § 116. *Id*. The Petitioners also provide other examples of multiple emission units being authorized by other PBRs and 30 TAC § 116 permits. *Id.* at 39–40.

Relatedly, the Petitioners claim that the title V permit does not identify which pollutants listed in 30 TAC § 106.4 BP Amoco is authorized to emit for each unit under claimed PBRs. *Id.* at 40. The Petitioners claim that a PBR may be used to authorize emissions of 250 tons per year (TPY) NO_x, 250 TPY CO, 25 TPY VOC, 25 TPY SO_2, 25 TPY PM, 25 TPY Lead, 25 TPY H_2S, 25 TPY H_2SO_4. *Id.* at 41 (citing 30 TAC § 106.4(a)(1)). The Petitioners assert that if every PBR authorized emissions of all pollutants under 30 TAC § 106.4, it would "completely undermine the integrity of Texas's PSD and NNSR programs" because each "claimed PBR would authorize allowable emission increases exceeding applicable major source and major modification thresholds." *Id*. The Petitioners contend that Texas does not read its rules to authorize all pollutants for each claimed PBR. *Id.* The Petitioners note that TCEQ reads 30 TAC § 106.4 to

only authorize emissions of the pollutants "as applicable" to the particular construction project for which the PBR was claimed. *Id.* (quoting 30 TAC § 106.4(a)(1)). Further, the Petitioners claim that TCEQ limits PBRs such that the "cumulative authorized emissions for each PBR project [(group of units)] must remain below major modification thresholds." *Id.* (citing TCEQ PBR Applicability Checklist, Section 1). While the Petitioners acknowledge these safeguards in the PBR program, the Petitioners claim that the title V permit still does not identify which of the many different pollutants under 30 TAC § 106.4 are authorized for each unit under a claimed PBR. *Id.* Therefore, the Petitioners assert that the title V permit fails to assure compliance because, as written, the permit incorrectly suggests that all pollutants under 30 TAC § 106.4 are authorized for each PBR. *Id.* at 42.

Second, the Petitioners claim that the title V permit does not identify any emission unit or group of units for 10 PBRs listed in the title V permit: 106.227 (9/4/2000), 106.231 (9/4/2000), 106.263 (11/1/2001), 106.373 (3/14/1997), 106.412 (9/4/2000), 106.433 (9/4/2000), 106.452 (9/4/2000), 106.453 (9/4/2000), 106.454 (11/1/2001), and 106.492 (9/4/2000). *Id*. at 42. Therefore, the Petitioners contend that the title V permit is unclear as to how the PBRs apply to emission units at the BP Amoco facility and thereby undermines the enforceability of PBR requirements. *Id.* at 42–43 (citing Objection to Title V Permit No. O2164, Chevron Phillips Chemical Company, Philtex Plant (August 6, 2010) at ¶ 7;[67] *Shell Deer Park Order* at 11–15).

Third, the Petitioners claim that the title V permit does not include registration numbers for registered PBRs and is unclear as to which registered PBRs establish source-specific or certified emission limits. *Id.* at 48.

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

Under title V of the CAA, the EPA's part 70 regulations, and Texas's EPA-approved title V program rules, every title V permit must include all applicable requirements that apply to a source, as well as any permit terms necessary to assure compliance with these requirements. *E.g.*, 42 U.S.C. § 7661c(a).[68] "Applicable requirements," as defined in the EPA's and TCEQ's rules, include the terms and conditions of preconstruction permits issued by TCEQ, including requirements contained in a PBR that is claimed by a source, as well as source-specific emission limits established through certified registrations associated with PBRs. *See* 40 C.F.R. § 70.2; 30 TAC § 122.10(2)(H).

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[67] The EPA notes that this August 6, 2010 objection was issued under authority delegated by the Administrator to Region 6 to object during EPA's 45-day review period. The objection letter is available at *https://www.tceq.texas.gov/assets/public/permitting/air/Announcements/epa-chevron-2164.pdf*.

[68] CAA section 504(a) requires the following: "Each permit issued under this subchapter shall include enforceable emission limitations and standards, . . . and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan." *Id*; *see also* 40 C.F.R. § 70.6(a)(1) ("Each permit issued under this part shall include the following elements: (1) Emissions limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance."); *id.* § 70.3(c)(1) ("For major sources, the permitting authority shall include in the permit all applicable requirements for all relevant emissions units in the major source."); 30 TAC 122.142(2)(B)(i) ("Each permit shall also contain specific terms and conditions for each emission unit regarding the following: . . . the specific regulatory citations in each applicable requirement or state-only requirement identifying the emission limitations and standards.").

The CAA requirement to include all applicable requirements in a title V permit can be satisfied using IBR in certain circumstances. *See, e.g.*, *White Paper Number 2* at 40 (explaining how IBR can satisfy the requirements of CAA § 504).[69] When the EPA approved the Texas title V program, the EPA balanced the streamlining benefits of IBR against the value of a more detailed title V permit and approved TCEQ's use of IBR for minor NSR requirements (including PBRs), provided the program was implemented correctly. *See* 66 Fed. Reg. 63318, 63321–32 (December 6, 2001). The EPA stated as a condition of program approval that "PBR are incorporated by reference into the title V permit by identifying . . . the PBR by its section number." *Id*. at 63324. Notably, the EPA and TCEQ also agreed as part of the approval process that "PBRs will be cited to the lowest level of citation necessary to make clear what requirements apply to the facility." *Id*. at 63322 n.4. This agreement is consistent with TCEQ's regulations approved by the EPA. *See* 30 TAC 122.142(2)(B)(i) ("Each permit shall also contain specific terms and conditions for each emission unit regarding the following: . . . the *specific regulatory citations* in each applicable requirement or state-only requirement *identifying the emission limitations and standards*." (emphases added)). This is also consistent with the EPA's longstanding position that materials incorporated by reference must be clearly identified in the permit. *See, e.g.*, *White Paper Number 2* at 37 ("Referenced documents must also be specifically identified.").

With regard to the Petitioners' claim that the title V permit is unclear as to what emission limits apply to the units authorized by PBRs, the Petitioners have demonstrated that neither the title V permit nor the permit record explain what emission limits apply (i.e., how much pollution and which pollutants) to each unit authorized by a PBR. The Petitioners have demonstrated that it is unclear how the public could identify which pollutants a PBR authorizes each unit to emit under 30 TAC § 106.4(a)(1) or which PBRs in the BP Amoco title V permit were certified at lower emissions thresholds under 30 TAC § 106.6. Further, at the time the BP Amoco title V permit was issued, it was unclear as to whether the emission limits under 30 TAC § 106.4(a)(1) apply to each unit or to an entire project (group of units) when multiple units are authorized by the same PBR. *See In the Matter of Motiva, Port Arthur Refinery*, Order on Petition No. VI-2016-23, at 27–32 (May 31, 2018) (*Motiva Order*); *In the Matter of Pasadena Refining System, Pasadena Refinery*, Order on Petition No. VI-2016-20, at 10–15 (May 1, 2018) (*Pasadena Order*). The EPA notes that as a result of EPA orders granting similar claims in the *Motiva* and *Pasadena Orders*, TCEQ has clarified how the emission limits under 106.4(a)(1) apply and has begun including clarifying text in the statement of basis for title V permits as they are renewed. *See* June 13, 2018 Wilson Letter. Specifically, TCEQ has begun to include an explanation to the statement of basis in recent title V permits, including:

> The TCEQ has interpreted the emission limits prescribed in 30 TAC §106.4(a) as both emission thresholds and default emission limits. The emission limits in 30 TAC §106.4(a) are all considered applicable to each facility as a threshold matter to ensure that the owner/operator qualifies for the PBR authorization. Those same emission limits are also the default emission limits if the specific PBR does not further limit emissions or there is no lower, certified emission limit claimed by the owner/operator.

[69] *See supra* note 55.

See, e.g., Statement of Basis for Draft Title V Permit for Odfjell Terminal Houston at 94–97 (December 20, 2020).

With regard to the Petitioners' claim that some PBRs are not associated with any emission units in the title V permit, the Petitioners have demonstrated that neither the Permit nor permit record establish to which emission units the following PBRs apply: 106.227 (9/4/2000), 106.231 (9/4/2000), 106.263 (11/1/2001), 106.373 (3/14/1997), 106.412 (9/4/2000), 106.433 (9/4/2000), 106.452 (9/4/2000), 106.453 (9/4/2000), 106.454 (11/1/2001), and 106.492 (9/4/2000). While the New Source Review Authorization References by Emission Unit table identified emission units for most of the PBRs in the title V permit, neither this table nor any other portion of the permits identified the specific emission units to which the aforementioned PBRs apply.

With regard to the Petitioners' claim that the title V permit does not identify registration numbers associated with registered PBRs and does not identify certain source-specific requirements (e.g., certified emission limits) derived from registered PBRs, the Petitioners have demonstrated that the title V permit does not properly incorporate these applicable requirements. Special Condition 20 of the BP Amoco title V permit indicates the following:

> Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, [and other types of permits] . . . referenced in the New Source Review Authorization References attachment. These requirements:
>
> A. Are incorporated by reference into this permit as applicable requirements . . . .

Thus, the title V permit clearly incorporates those NSR authorizations, including PBRs, that are referenced in the New Source Review Authorization References attachment. In the title V permit, the New Source Review Authorization References table and the New Source Review Authorization References by Emissions Unit table (both part of the aforementioned attachment) include references to PBRs by citing various PBR rule numbers and the effective date of each PBR rule. Therefore, it is clear that the requirements contained within the PBR rules cited in these two tables are incorporated by reference into the title V permit.

However, the title V permit does not appear to incorporate other requirements associated with PBR authorizations that are not directly referenced in the New Source Review Authorization References attachment or elsewhere in the title V permit. For example, as the Petitioners point out, the New Source Review Authorization References attachment contains no reference to registered PBRs that contain requirements (including certified source-specific emission limits) that differ from those contained in the PBR rules that the title V permit does directly reference.[70] Although the registered PBRs containing source-specific emission limits are available online,

[70] This is problematic given that, by their nature, the certified source-specific emission limits contained in registered PBRs are necessarily different than the limits contained in the PBR rules with which they are associated. *See* 40 C.F.R. § 70.6(a)(1)(i) ("The permit shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based.").

that does not resolve the question of whether the title V permit itself currently includes or incorporates these requirements.

In sum, because the permit contains no direct reference to certain source-specific requirements (e.g., certified emission limits) derived from registered PBRs, it is not clear that the Permit currently includes or incorporates all requirements that are applicable to the facility, as required by the CAA, the EPA's regulations, TCEQ's regulations, the agreements underlying the EPA's approval of IBR in Texas, and the EPA's longstanding position concerning IBR. Therefore, the EPA is granting the Petition with respect to this claim. As discussed further in the following paragraphs, however, the EPA believes that this issue can, and most likely will, be resolved expeditiously by a straightforward solution that the Agency understands TCEQ to be in the process of implementing.

Direction to TCEQ: As explained with respect to Claim B.5, the EPA understands that TCEQ has begun a process to clarify which PBRs only apply to insignificant units at all facilities as their title V permits are renewed. *See e.g.,* Statement of Basis for Draft Title V Permit for Odfjell Terminal Houston at 7–8 (December 20, 2020). To the extent any PBRs in the BP Amoco title V permit apply to insignificant units, TCEQ should make those clarifications in the Permit and permit record, as necessary. If TCEQ makes those changes, the title V permit would likely contain sufficient information on these PBRs to satisfy the requirements of the CAA and TCEQ's approved program. In *White Paper Number 2*, the EPA explained that Part 70 allowed "considerable discretion to the permitting authority in tailoring the amount and quality of information required" for insignificant units in title V permits. *White Paper Number 2* at 30. The EPA explained that applicable requirements related to insignificant units can be addressed in title V permits with minimal or no reference to any specific emissions unit, activity, or emissions information. *White Paper Number 2* at 4, 31. If TCEQ amends the title V permit or permit record to identify those PBRs that only apply to insignificant units, without including any further information on the emissions or direct reference to applicable insignificant emission units, the EPA anticipates such an approach would be consistent with our guidance and the requirements of title V of the CAA.

For the remaining PBRs that do not apply to insignificant units, as previously explained, the EPA recognizes that TCEQ has also begun including in the statement of basis for permits an explanation of how the emission limits under 30 TAC § 106.4(a)(1) apply to the units authorized by PBRs. *See e.g.,* Statement of Basis for Draft Title V Permit for Odfjell Terminal Houston at 94–97 (December 20, 2020); Letter from Michael Wilson, Director, Air Permits Division, TCEQ, to Jeff Robinson, Director, Air and Radiation Division, Region 6, U.S. EPA, *Executive Director's Response to EPA Objections Regarding Permits by Rule* (June 13, 2018) (the June 13, 2018 Wilson Letter). The EPA directs TCEQ to make analogous clarifications to the statement of basis for the BP Amoco title V permit, as appropriate, which the EPA anticipates will resolve this issue.

In addition, TCEQ must explain to which emission units the 10 PBRs identified in the Petition apply. If TCEQ believes that some or all PBRs identified in the Petition only apply to insignificant units, then TCEQ should provide such explanation in the permit record and include a list of those PBRs in the statement of basis. For the remaining PBRs that do not apply only to

insignificant units, TCEQ could update the title V permit and list these PBRs next to the applicable emission units in the New Source Review Authorization References by Emission Unit table.

Finally, the EPA directs TCEQ to modify the title V permit to incorporate certified PBR registrations in a manner that clearly identifies each registration and the emission unit(s) to which it applies. The most straightforward way to do this would involve a reference to the registration numbers associated with each certified PBR registration. These registration numbers function like permit numbers, as they each identify a specific document that contains the specific requirements that apply to the source, including any certified source-specific emission limits taken per 30 TAC 106.6. Thus, the registration numbers point directly to the specific requirements that are applicable to the source. The registered PBR requirements themselves may be found either online, or in person at the TCEQ file room.[71]

Incorporating certified registration numbers could be accomplished in various ways. The EPA understands that TCEQ intends to require permit applicants to fill out a PBR Supplemental Table, which will include registration numbers for all registered PBRs, in all title V applications submitted after August 1, 2020.[72] Further, TCEQ will include the registration numbers in the New Source Review Authorization References by Emission Unit Table with the unit/group/process ID number to which they apply. The EPA expects that this practice would conform with TCEQ's EPA-approved regulations, 30 TAC 122.142(2)(B)(i), as well as the agreements underpinning the EPA's approval of the IBR of PBRs—namely that "PBRs will be cited to the lowest level of citation necessary to make clear what requirements apply to the facility." 66 Fed. Reg. at 63322 n.4.

V. CONCLUSION

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

Dated: JUL 20 2021

Michael S. Regan
Administrator

[71] *See https://www.tceq.texas.gov/permitting/air/nav/air_status_permits.html.*
[72] *See* May 11, 2020 Baer Letter.