

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

IN THE MATTER OF	§	PETITION FOR OBJECTION
Clean Air Act Title V Permit (Federal	§	
Operating Permit) No. O1669	§	
Issued to Shell Oil Company, Deer Park	§	Permit No. O1669
Refinery	§	
Issued by the Texas Commission on	§	
Environmental Quality	§	
	§	

**PETITION REQUESTING THAT THE ADMINISTRATOR OBJECT TO
ISSUANCE OF THE PROPOSED TITLE V OPERATING PERMIT FOR THE DEER
PARK REFINERY, PERMIT NO. O1669**

Pursuant to section 42 U.S.C. § 7661d(b)(2), Environmental Integrity Project, Air Alliance Houston, and Sierra Club (“Petitioners”) hereby petition the Administrator of the U.S. Environmental Protection Agency (“Administrator” or “EPA”) to object to Federal Operating Permit No. O1669 (“Proposed Permit”) renewed by the Texas Commission on Environmental Quality (“TCEQ” or “Commission”) for the Deer Park Refinery (“Refinery”), operated by Shell Oil Company (“Shell”).

I. INTRODUCTION

The Shell Deer Park Refinery is part of an integrated industrial complex located in Deer Park approximately fifteen miles southeast of Houston. The Refinery is a major source of so-called “criteria pollutants,” ozone forming pollutants, and toxic air pollutants located in the Harris County severe non-attainment area. It is the eleventh largest petroleum refinery in the

United States and processes approximately 330,000 barrels per day of crude oil.¹ The Refinery has a long history of non-compliance with Clean Air Act requirements that has resulted in many administrative enforcement orders, and two federal court consent decrees.² While Petitioners are hopeful that the most recent consent decree, which requires Shell to install new pollution control and monitoring equipment, will reduce illegal emissions from the Refinery, we are also concerned that the Proposed Permit fails to assure compliance with applicable requirements established to limit public exposure to dangerous pollution emitted from the Refinery.

The Administrator should object to the Proposed Permit because it fails to assure compliance with all applicable requirements, it fails to provide a clear and complete account of the requirements that apply to the Refinery, and it fails to address Shell's ongoing non-compliance with Texas State Implementation Plan requirements. The Administrator should also object because the Executive Director failed to sufficiently respond to Petitioners' comments.³

II. PETITIONERS

Environmental Integrity Project ("EIP") is a non-profit, non-partisan organization with offices in Austin, Texas and Washington, D.C. that promotes strict and effective enforcement of state and federal air quality laws.

Air Alliance Houston is a non-profit organization whose mission is to reduce air pollution in the Houston region and to protect public health and environmental integrity through research,

¹ Shell Deer Park Settlement webpage, available electronically at <http://www2.epa.gov/enforcement/shell-deer-park-settlement#overview>

² *Id.*; Details about the March 21, 2001 Deer Park Consent Decree are available electronically at: <http://www2.epa.gov/enforcement/deer-park-refining-limited-partnership-settlement>; Exhibit A, list of enforcement orders issued against Shell by the TCEQ; See also Exhibit B, a list of excess emission events at the Refinery reported by Shell.

³ While Air Alliance Houston did not sign onto public comments filed by Sierra Club and EIP, we will refer to the comments as "Petitioners' comments" for convenience. Even though Air Alliance Houston did not sign onto the public comments, they may still petition EPA to object to the Proposed Permit based on the comments filed by Sierra Club and EIP. 40 C.F.R. § 70.8(d) ("[I]f the Administrator does not object in writing . . . any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection") (emphasis added).

education, and advocacy. Air Alliance Houston participates in regulatory and legislative processes, testifies at hearings, and comments on proposals. Air Alliance Houston is heavily involved in community outreach and works to educate those living in neighborhoods directly impacted by air pollution about local air pollution issues, as well as state and federal policy issues.

Sierra Club, founded in 1892 by John Muir, is the oldest and largest grassroots environmental organization in the country. Sierra Club is a nonprofit corporation with offices, programs and numerous members in Texas. Sierra Club has the specific goal of improving outdoor air quality.

III. PROCEDURAL BACKGROUND

Permit No. O1669 was initially issued on November 22, 2004. Shell filed its renewal application on May 20, 2009. Nearly three years later, on May 16, 2012, the Executive Director finalized the Draft Renewal Permit No. O1669 (“Draft Permit”). Notice of the Draft Permit was published on June 14, 2012 and Environmental Integrity Project and Sierra Club timely filed comments identifying several deficiencies in the Draft Permit on July 16, 2012.⁴

In response to these comments, the Executive Director made the following changes to the Draft Permit: (1) additional major New Source Review (“NSR”) information was included in Appendix B; (2) voided Permit Nos. 46535, 50596, 51095, and 55730 were removed the New Source Review Authorization References table; (3) 40 C.F.R. § 60, Subpart J was added as an applicable requirement for FLAREEP and FLAREGIRE, as required by Consent Decree H-01-0978; and (3) the permit shield for units CG1 and CG2 were updated to change the basis of determination for 40 CFR Part 60, Subpart D. The Draft Permit was also revised to indicate that Shell may move forward with its application to “de-flex” Permit No. 21262 or continue

⁴ A copy of these comments is included with this Petition as Exhibit C (“Comments”).

operating under Flexible Permit No. 21262, “depending on whether the Flexible Permits Program becomes SIP approved.”⁵ The revised permit and the Executive Director’s response to public comments were sent to EPA on February 4, 2014. EPA did not object to the Proposed Permit during its 45-day review period, which ended on March 21, 2014. Petitioners are satisfied that the Executive Director’s response to public comments and revisions to the Draft Permit resolve our concerns about the permit’s incorporation by reference of major NSR permit requirements and incorporation of Shell’s consent decree (Case No. H-01-0978). However, the Executive Director’s response to Petitioners’ remaining objections was not sufficient, and his decision to revise Shell’s obligation to “de-flex” Permit No. 21262 was improper. Accordingly, Petitioners timely file this Petition and we respectfully ask the Administrator to object to the Proposed Permit.

IV. LEGAL REQUIREMENTS

All major stationary sources of air pollution are required to apply for operating permits under Title V of the Clean Air Act.⁶ Title V permits must include all federally enforceable emission limits and operating requirements that apply to a source as well as monitoring requirements sufficient to assure compliance with these limits and requirements in one legally enforceable document.⁷ Title V permits issued by the TCEQ are federally enforceable and the Commission may only issue a permit if the permit conditions assure compliance with all applicable requirements. Non-compliance with any provision in a Title V permit constitutes a violation of the Clean Air Act and provides ground for an enforcement action against the source.⁸

⁵ Exhibit D, Executive Director’s Response to Public Comments (“RTC”).

⁶ 42 U.S.C. § 7661a(a).

⁷ 42 U.S.C. §§ 7661a(a), 7661c(a); *see also* 40 C.F.R. § 70.6(a)(1).

⁸ 42 U.S.C. § 7661(a).

Where a state permitting authority issues a Title V operating permit, EPA will object to the permit if it is not in compliance with applicable requirements under 40 C.F.R. Part 70.⁹ If EPA does not object, “any person may petition the Administrator within 60 days after the expiration of the Administrator’s 45-day review period to make such objection.”¹⁰ The Administrator “shall issue an objection . . . if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of the . . . [Clean Air Act].”¹¹ The Administrator must grant or deny a petition to object within 60 days of its filing.¹² While the burden is on the petitioner to demonstrate that a Title V operating permit is deficient, once that burden is met, “EPA has no leeway to withhold an objection.”¹³

V. GROUNDS FOR OBJECTION

A. The Proposed Permit’s Incorporation by Reference of Case-by-Case and Standard Permit Minor NSR Authorizations Fails to Assure Compliance¹⁴

Texas Title V permits must include and assure compliance with emission limits and requirements contained in preconstruction permits issued under the Texas State Implementation Plan.¹⁵ As a matter of policy, the TCEQ prefers to issue Title V permits that do not directly list preconstruction permit limits and requirements. Instead, the TCEQ incorporates preconstruction permits by reference into its Title V permits. To accomplish this, the TCEQ includes the following special condition in its Title V permits:

⁹ 40 C.F.R. § 70.8(c).

¹⁰ 42. U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); 30 Tex. Admin. Code § 122.360.

¹¹ 42 U.S.C. § 7661d(b)(2); *see also* 40 C.F.R. § 70.8(c)(1).

¹² 42 U.S.C. § 7661d(b)(2).

¹³ *Sierra Club v. EPA*, 557 F.3d 401, 405 (6th Cir. 2009); *New York Public Interest Group v. Whitman*, 321 F.3d 316, 332-34, n12 (2nd Cir. 2003) (“Although there is no need in this case to resort to legislative history to divine Congress’ intent, the conference report accompanying the final version of the bill that became Title V emphatically confirms Congress’ intent that the EPA’s duty to object to non-compliant permits is nondiscretionary”).

¹⁴ Comments at 4.

¹⁵ 42 U.S.C. § 7661c(a) (“*Each permit issued*” under Title V must include conditions “necessary to assure compliance with applicable requirements”)(emphasis added).

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, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, I Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

- A: Are incorporated by reference into this permit as applicable requirements
- B: Shall be located with this operating permit
- C: Are not eligible for a permit shield.¹⁶

As EPA explained to the TCEQ in a series of Title V permit objection letters, the TCEQ's practice of incorporating major preconstruction permits by reference is inconsistent with Title V requirements: It undermines the enforceability of major preconstruction permit requirements and it fails to provide members of the public, regulators, and regulated entities with a clear comprehensive list of federally enforceable requirements the Title V source must comply with.¹⁷ In response to these objection letters, the TCEQ revised its policy and now issues Title V permits that directly include major preconstruction permit limits and requirements.¹⁸

In many cases, the TCEQ's use of incorporation by reference ("IBR") for minor preconstruction permit limits and requirements is also a problem. While EPA has expressed concern that the TCEQ's use of IBR for minor preconstruction permits may be contributing to ambiguous and unenforceable permits, EPA has not formally objected to any Texas Title V permit for that reason.¹⁹ As Petitioners' public comments explain, EPA's concerns about

¹⁶ Proposed Permit at 19-20, Special Condition 23.

¹⁷ Objection to Title V Permit No. O1420, CITGO Refining and Chemicals Company, Corpus Christi Refinery, West Plant (October 29, 2010) at 3-4. Available electronically at:

<http://www.tceq.state.tx.us/assets/public/permitting/air/Announcements/epa-objection-O1420.pdf>

¹⁸ Letter from Carl Edlund, Director Multimedia Planning and Permitting Division, EPA Region 6 to Steve Hagle, Deputy Director, Office of Air, TCEQ (March 21, 2012) Regarding Title V Pilot Permits to Remove Incorporation by Reference. Available Electronically: <http://www.tceq.state.tx.us/assets/public/permitting/air/Announcements/3-21-12-lrrtotceq-pilot.pdf>; See also, follow up correspondence available electronically at

<http://www.tceq.state.tx.us/assets/public/permitting/air/Announcements/toepa-07-27-12.pdf> and

<http://www.tceq.state.tx.us/assets/public/permitting/air/Announcements/8-22-12-epa-ltr-totceq.pdf>

¹⁹ Letter from Al Armendariz, Regional Administrator, EPA, Region 6, to Mark R. Vickery, Executive Director,

Texas's use of incorporation by reference for minor preconstruction permits are well-founded and the Draft Permit's incorporation by reference of minor preconstruction permits is inconsistent with Title V requirements.

EPA must object to the Proposed Permit's incorporation by reference of minor preconstruction permits for the same reasons it has objected to incorporation by reference of major preconstruction permits. Emissions units authorized under Shell's minor preconstruction permits have the potential to emit air pollution at levels that far exceed applicable major source significance thresholds. Indeed, as we explain below, Shell's minor preconstruction permits authorize Shell to emit far more pollution than several of the major preconstruction permits incorporated by reference into Title V permits that drew EPA's objection. Air pollution emitted by emissions units authorized under a minor permit is no less dangerous because it is authorized by a minor permit. To assure that air pollution emitted from the Refinery will not harm the public or further diminish air quality in the Harris County non-attainment area, the Proposed Permit must assure compliance with minor preconstruction permit limits and requirements. The Proposed Permit falls short of this mark for the same reasons that Title V permits incorporating major preconstruction permits fall short of the mark: It fails to put members of the public, regulators, and Shell on notice as to which requirements and limits apply to significant emissions units at the Refinery and it fails to assure compliance with those requirements and limits.

Indeed, the Proposed Permit's incorporation by reference of minor preconstruction permits poses a greater obstacle to enforcement than the incorporation of major preconstruction permits that EPA has objected to. This is so, because: (1) limits and requirements established by Shell's minor preconstruction permits are spread across many different permits and different

kinds of permits, (2) these various permits are frequently revised to reflect changes at the Refinery, and (3) changes to one permit can affect requirements established by another.

1. The Proposed Permit's Incorporation by Reference of Minor NSR Permits is Objectionable for the Same Reason that the TCEQ's Practice of Incorporation by Reference of Major NSR Permits is Objectionable²⁰

While the Proposed Permit only incorporates by reference two major NSR permits, it incorporates by reference four minor NSR permits (and several more PBRs).²¹ As we explained in our public comments, these minor NSR permits authorize the Refinery to emit significant quantities of air pollution.²² Based on our review of Shell's files, the four minor NSR permits incorporated into the Proposed Permit authorize the Refinery to emit: 2,967 tons of NOx, 1793 tons of SO2, 1434 tons of CO, 673 tons of VOC, and 280 tons of PM10 each year.²³ These significant emissions dwarf the quantity of air pollution authorized by major NSR permits at many of the facilities where IBR of major NSR permits has drawn an EPA objection. For example, EPA objected to TCEQ's proposed renewal of Title V Permit No. O17 for the City of Garland Power and Light's Ray Olinger Plant, because it incorporated by reference Permit No. PSDTX935.²⁴ PSDTX935 authorizes the Ray Olinger Plant to emit 134.40 tons of NOx, 227.33 tons of CO, 21.99 tons of VOC, 52.3 tons of SO2, and 36.62 tons of PM each year.²⁵ EPA also objected to a proposed minor revision to Title V Permit No. O2013 for Ticona Polymer's Co-

²⁰ Comments at 4.

²¹ Proposed Permit at 550.

²² Comments at 4.

²³ Exhibit E. The totals in this table were calculated by summing annual limits listed in the MAERTs for non-PBR minor NSR permits listed in the Proposed Permit's New Source Review Authorization References table. Proposed Permit at 550. These totals do not include emissions authorized by Permit Nos. 21262 and 22038, which are associated with the two major NSR permits incorporated by the Proposed Permit (PSDTX815 and PSDTX928).

²⁴ *Objection to Federal Operating Permit No. O17, City of Garland Power and Light, Ray Olinger Plant* (January 22, 2010) at ¶ 1 ("Pursuant to 40 CFR 70.8(c)(1), EPA object to the issuance of the Title V permit because it incorporates by reference the major New Source Review permit PSD-TX-935 and fails to include emission limitations and standards as necessary to assure compliance with all applicable requirements.").

²⁵ Exhibit F, PSDTX935 Maximum Allowable Emission Rate Table.

Gen facility, because it incorporated by reference Permit No. PSDTX725.²⁶ PSDTX935 authorizes Ticona Polymer's Co-Gen facility to emit 531.4 tons of NOx, 285.2 tons of CO, 47.5 tons of VOC, 35.8 tons of PM10, and 18.5 tons of SO2 each year.²⁷ EPA also objected to a proposed revision to Title V Permit No. O2032 for Union Carbide's Polyethylene and Catalyst Units in Calhoun County, because it incorporated by reference Permit No. PSDTX118M4.²⁸ PSDTX118M4 authorizes Union Carbide to emit 26.93 tons of NOx, 93.26 tons of CO, 197.75 tons of VOC, and 0.19 tons of SO2 each year.²⁹

Taken together, emissions authorized by these *three major* NSR permits are a fraction of the emissions authorized by minor NSR permits incorporated by reference into the Proposed Permit. If IBR of these major NSR permits is objectionable because it fails to assure compliance with major NSR limits and requirements, and if the benefits of transparency and improved enforceability accomplished through the direct inclusion of limits and requirements established by these major NSR permits outweighs the administrative burden of preparing detailed Title V permits, then the Proposed Permit's IBR of Shell's minor NSR permits is also objectionable.

2. The Proposed Permit's use of IBR Presents a More Significant Burden on Enforcement of Minor NSR Permit Requirements than the TCEQ's Impermissible Practice of Incorporating Major NSR Permit Limits by Reference

In response to Petitioners' comments regarding the Draft Permit's use of IBR for minor NSR permits, the Executive Director explained that:

²⁶ *Objection to Federal Operating Permit No. O2013, Ticona Polymers, Co-Gen* (November 2009) at ¶ 1.

²⁷ Exhibit G, PSDTX725, Maximum Allowable Emission Rate Table.

²⁸ *Objection to Federal Operating Permit No. O2032, Union Carbide Corporation, Polyethylene and Catalyst Units* (November 25, 2009) at ¶ 1.

²⁹ Exhibit H, PSDTX118M4, Maximum Allowable Emission Rate Table.

All NSR permits for this site are easily found by accessing TCEQ's permit database. These authorizations, emission limits, terms and conditions, and monitoring requirements are all enforceable terms of the operating permit to which they are incorporated. Unlike many other states, this technique is particularly appropriate in Texas where the preconstruction permits are a separate authorization from the operating permit. The procedures for issuance, amendment and renewal of preconstruction permits are also separate and distinct from the operating permits program; and these larger facilities frequently make changes at their sites requiring changes to NSR permits. The health effects review and NAAQS analysis is conducted as part of the preconstruction permit review and not part of the TV application review so the concerns about potential to harm public health and interference with the attainment of health based ambient air quality standards would have already been addressed during the review of those initial or amendment applications. Cutting and pasting emission limit tables or monitoring terms from the NSR to the operating permit creates potential inaccuracies as to what specific requirement the site is subject to at a given point in time. Keeping these limits and terms in one document rather than two (and referencing by permit number in the operating permit) better ensures both the TCEQ and permit holder which requirements must be followed.³⁰

This response does not justify the TCEQ's reliance on IBR in the Proposed Permit.

Instead, the Executive Director's response illustrates why the Proposed Permit should directly include all permit limits and requirements established by Shell's major and minor NSR permits. If it is unreasonable to expect the state agency charged with overseeing Texas's permitting programs to maintain a Title V permit for the Refinery that directly lists and reconciles all the current limits and requirements established by incorporated major and minor NSR permits, it is even more unreasonable to expect members of the public—who, more often than not, will be unfamiliar with the TCEQ's complicated permitting procedures—to accomplish this same feat. While it may be reasonable in some cases to expect members of the public to obtain copies of minor NSR permits incorporated by a Title V permit—for example, where emissions authorized by minor NSR permits are cumulatively insignificant—it is not reasonable in this case. Members of the public and federal regulators should not need to obtain copies of the various minor NSR permits incorporated into the Proposed Permit, ensure that their copies of each

³⁰ RTC at Response 2.

permit are current, and then reconcile various limits and requirements contained in multiple permits that apply to the same emissions unit or units to derive a correct understanding regarding which federally enforceable NSR permit requirements apply to the Refinery. *That is what Shell's Title V Permit is for.*³¹

Obtaining copies of the various major and minor preconstruction permits incorporated by the Proposed Permit is not the only obstacle that a member of the public or a federal regulator must overcome to make sense of the Proposed Permit. Even if a reader manages to obtain copies of all the incorporated permits, she must ensure that she has current copies of each and every incorporated permit. This is no easy task, as the Executive Director's response to public comments emphasizes, because Shell frequently revises its preconstruction permits to reflect changes at the Refinery. And because the limits and requirements in one permit may be revised through changes to another permit, the reader must make sure she has current copies of all permits incorporated by reference into the Proposed Permit.³² Even after the reader has obtains current copies of all the incorporated permits, she is still not finished. Because various permits may establish limits and requirements that modify or affect limits and requirements in other permits, the reader must work through the incorporated permits to reconcile—for each emissions unit—the various and potentially conflicting limits and requirements contained in each of the permits that apply to the unit. The Proposed Permit's IBR of minor preconstruction permits impedes rather than facilitates the practicable enforceability of applicable requirements. The

³¹*Sierra Club v. Georgia Power Co.*, 443 F.3d 1346, 1348 (11th Cir. 2006) “The intent of Title V is to consolidate into a single document (the operating permit) all of the clean air requirements applicable to a source of pollution. The Title V permit program generally does not impose new substantive air quality control requirements. Rather, a Title V permit enables 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.”)(internal citations omitted)(emphasis added).).

³² Even then, she may not be able to identify the applicable limits for all emissions units, because Shell may use a PBR or a standard permit to authorize changes to an emission unit or units covered by a minor or major NSR permit. 30 Tex. Admin. Code §§ 116.116(d); 116.615(3).

Proposed Permit's IBR of minor preconstruction permits does not provide a transparent account of the requirements and limits in those permits and it will not help the members of the public and federal regulators determine how well Shell is complying with those requirements over time.

Petitioners, who have more than a little experience with Texas's permitting procedures, are unable to make clear sense of the Proposed Permit's incorporation of major permits, minor permits, and PBRs. We don't believe EPA can make sense of it either. EPA should not require the general public to accomplish what it cannot. Unless the Administrator and her staff can read the Proposed Permit, easily obtain and reconcile the minor NSR permits and PBRs incorporated by it, and identify the emission limits that apply to each significant emissions unit covered by the permit, the Administrator should object.

3. It is untrue that “All NSR permits for. . . [the Refinery] are easily found by accessing TCEQ’s permit database”

The Executive Director contends that public access to reliable and current copies of the many minor NSR permits incorporated by reference into the Proposed Permit is not a problem after all, because “[a]ll NSR permits for this site are easily found by accessing TCEQ’s permit database.”³³ As EPA’s regional staff must know, this is not true. Petitioners tried to find the TCEQ’s permit database online and failed. Petitioners then sent an email to the Executive Director’s permit engineer, asking her where to find it. The permit engineer promptly responded, directing Petitioners to the TCEQ’s Remote Document Server, at <https://webmail.tceq.state.tx.us/gw/webpub>.³⁴ The TCEQ’s remote document server is not a “permit database” where “all NSR permits” incorporated by reference into the Proposed Permit are “easily” found.

³³ RTC at Response 2.

³⁴ Exhibit I, Email from Camilla Widenhofer to Gabriel Clark-Leach, dated April 23, 2014.

The TCEQ’s Remote Document Server, which is not identified anywhere in the Proposed Permit or Statement of Basis, does not contain a search field that allows one to search for documents by permit number. Nor does the page contain instructions on how to use it or a link to search instructions. Instead, it contains a single search field into which the user may enter any words or numbers. Petitioners’ search for “3179,” (the first minor NSR permit number listed on the Proposed Permit’s New Source Review Authorization References table) returned 230 documents.³⁵ These documents were not organized by date and the website did not provide any summary information for the listed documents. Instead, the documents were simply listed by file name. The file names were often comprised of or contained acronyms, abbreviations, and/or TCEQ form names (e.g., X1, C5, TRV, ATT, CND, MERA, RFC) that mean nothing to people who do not work at the TCEQ. None of the documents returned by Petitioners’ search were clearly identified as the final effective version of Permit No. 3179. Indeed, many of the documents had nothing to do with the Refinery. Of the documents that appeared to be copies or partial copies of Permit No. 3179 or some other permit incorporated by reference into the Proposed Permit, many were undated and Petitioners were unable to determine whether each such document contained final permit terms or draft permit terms.

Contrary to the Executive Director’s response to public comments, the TCEQ’s Remote Document Server is not a “permit database” that provides members of the public “easy” access to reliable information about the minor NSR permits incorporated by reference into the Proposed Permit. Members of the public attempting to find current, final copies of the NSR permits incorporated by reference into the Proposed Permit are unlikely to succeed. Indeed, because there are several different permits incorporated by reference into the Proposed Permit, and because a search for each permit will return a slew of irrelevant, draft, and/or outdated

³⁵ Exhibit J shows the documents that Petitioners’ search returned.

documents, members of the public attempting to use the Remote Document Server will very likely become confused, be misled, or simply give up. Because this is so, the Proposed Permit's incorporation by reference of minor NSR permits is objectionable and the Executive Director's response to Petitioners' comments on this issue is misleading and insufficient.

4. The fact that Texas has separate rules and administrative processes for preconstruction permits and Title V operating permits does not justify the TCEQ's reliance on IBR in this case

The Executive Director contends that IBR of minor NSR permit requirements is "particularly appropriate" in states, like Texas, where preconstruction permits and operating permits are separate documents. This argument is silly. Of course incorporation by reference is inappropriate where a source's NSR authorizations are already part of its Title V permit. Why would an agency incorporate by reference permit requirements established by the same permit? What could that even mean? That IBR of NSR permit requirements serves no purpose where agencies issue joint Title V/NSR permits does not suggest that Texas's use of IBR in this case is appropriate.

The Executive Director also suggests that the TCEQ would have trouble revising Texas Title V permits to reflect frequent changes to incorporated NSR authorizations, because the Commission's rules establish different processes and rules for changing NSR permits and Title V permits. This argument is misleading, because the TCEQ's Title V rules already require operators to revise their Title V permits whenever an applicable requirement in an underlying NSR permit is changed. Thus, under the TCEQ's existing rules, Shell must submit an application to revise its Title V permit each time a requirement or limit in one of its NSR permits

changes.³⁶ These applications must include a description of changes to underlying permit terms and identify emissions units affected by the changes and the Executive Director must approve or deny each application.³⁷ The TCEQ does not need to fundamentally change its Title V program or develop new rules in order to maintain a current Title V permit for the Refinery that directly includes limits and requirements established by Shell's preconstruction permits. All the agency needs to do is take information Shell is already required to provide and physically put it into Shell's Title V permit.

Thus, Petitioners do not agree with the Executive Director that the administrative difficulty of maintaining a current and complete Title V permit for the Refinery justifies the Proposed Permit's reliance on IBR for minor NSR permits. *It is because* federally enforceable limits and requirements for significant emissions units are spread across different minor and major NSR permits—which are constantly revised to reflect changes at the Refinery—that the Proposed Permit must compile, reconcile, and list all federally enforceable major and minor NSR permit requirements in a single, easily accessible document.

5. EPA has not Approved any Texas Title V Rule Concerning Incorporation by Reference

Putting to one side the practical concerns discussed above, the Executive Director also contends that the Proposed Permit's IBR of minor preconstruction permit requirements is proper, because (1) EPA approved the Texas Title V program with knowledge that the TCEQ frequently relied on IBR to incorporate minor NSR permits, and (2) that approval was upheld by the 5th

³⁶ 30 Tex. Admin. Code § 122.10(a) ("The permit holder shall submit an application to the executive director for a revision to a permit for those activities at a site which change, add, or remove one or more permit terms and conditions."). All minor and major NSR permit limits and operating requirements for emission units at a Title V site are also Title V permit terms. *See, e.g.,* Proposed Permit at 20, Special Condition 22 ("Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area . . . These requirements . . . [a]re incorporated by reference into this permit as applicable requirements[.]").

³⁷ 30 Tex. Admin. Code §§ 122.216(1) and (2) (Applications for Minor Permit Revisions); 30 Tex. Admin. Code §§ 122.220(1)-(3) (Applications for Significant Permit Revisions).

Circuit Court of Appeals.³⁸ The Executive Director's conclusion is not carried by these facts. Texas's federally approved Title V rules do not contain *any* provision specifically addressing whether and when IBR of NSR permit limits and requirements is appropriate. Thus, EPA's approval of Texas's Title V rules, which are *silent* with respect to the practice of IBR for minor NSR requirements, does not amount to a binding or final approval of the TCEQ's informal policy judgment that IBR may be used to include minor NSR permits in Texas Title V permits, nor does it diminish EPA's duty to object where IBR results in ambiguous and unenforceable Title V permits.

Because Texas's federally approved Title V program rules are silent with respect to factors the agency must consider to determine whether or when IBR may be used to include requirements in Texas Title V permits, EPA must independently evaluate Texas's use of IBR against federal statutory and regulatory requirements. As EPA has noted, Sections 504(a) and (c) of the Clean Air Act and corresponding provisions at 40 C.F.R. §§ 70.6(a)(1) and (3) create a presumption "that Title V permits will explicitly state all emission limitations and operational requirements for all applicability emission units at a facility."³⁹ EPA should scrutinize departures from this presumption on a case-by-case basis for consistency with Title V program objectives.

Historically, EPA's evaluation of IBR in Title V permits has balanced benefits in administrative efficiency arising from the streamlined IBR process against the increased transparency and enforceability of more detailed Title V permits.⁴⁰ While, "incorporation by

³⁸ RTC at Response 2 ("Inclusion of minor New Source Review (NSR) permit requirements in Title V permits through incorporation by reference was approved by EPA when granting Texas' operating permits program full approval in 2001").

³⁹ *Order Denying in Part and Granting in Part a Petition for Objection, In the Matter of Tesoro Refining and Marketing*, Petition No. IX-2004-6 at 8 (March 15, 2005).

⁴⁰ *Id.*

reference may be useful in many instances,” EPA directs agencies to “exercise care to balance the use of incorporation by reference with the obligation to issue permits that are clear and meaningful to all affected parties, including those who must comply with or enforce their conditions.”⁴¹ When states fail to heed this directive and use IBR to include preconstruction permit requirements in Title V permits without weighing the relevant factors, EPA should object. When the TCEQ fails to justify its use of IBR in a particular case or the permit record does not demonstrate that the agency’s reliance on IBR is consistent with Title V objectives, EPA should object. In cases like this one, where the benefits of increased enforceability and transparency that would result from a more complete permit clearly outweigh the administrative benefit of streamlined incorporation by reference; where IBR undermines the enforceability of applicable requirements; where the permit fails to put members of the public, regulators, and the operator on notice as to which federally enforceable limits and requirements that must be met, EPA must object.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to revise the Proposed Permit to directly list NSR permit requirements and limits for significant emissions units at the Refinery.

B. The Proposed Permit’s Defective Method of Incorporating Permit by Rule Requirements Fails to Assure Compliance⁴²

The Proposed Permit incorporates by reference several PBR limits and requirements.⁴³

EPA must “ensure that Title V permits [issued by the TCEQ] are clear and unambiguous as to

⁴¹ *Id.*; See also, White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program (March 5, 1996).

⁴² Comments at 5-8.

⁴³ Proposed Permit at 550 (listing PBRs incorporated by reference into the Proposed Permit) and 551-577 (identifying emissions units subject to incorporated PBRs).

how emission limits [established by PBRs] apply to particular emissions units.”⁴⁴ Though IBR of PBRs may be proper in some cases, Title V permits that incorporate PBRs by reference must provide enough information about the projects authorized by incorporated PBRs to allow readers to answer the following basic questions regarding how incorporated PBRs apply to Title V sources: (1) how much pollution a source may emit under each claimed PBR, (2) which pollutants may a source emit under each PBR, and (3) which units are authorized under each PBR? The Proposed Permit is deficient—not because it fails to directly include the text of the incorporated PBRs—but because it does not include information a reader needs to answer these basic questions.

1. How much pollution can Shell emit under claimed PBRs?⁴⁵

When a project is authorized by a PBR, emissions from units that are part of the project are subject to the emission limits established by the PBR. If a particular claimed PBR does not establish specific emission limits, then emissions from units that are part of the project are subject to the emission limits at 30 Tex. Admin. Code § 106.4(a)(1).⁴⁶ Because multiple projects at the Refinery have been authorized under the same PBR and because each such project is separately authorized, one must know how many projects have been authorized under each incorporated PBR to know how much pollution Shell is authorized to emit under each claimed PBR.

For example, imagine that “PBR X” may be used to authorize projects that emit no more than 3 tons per year of NOx. If Shell claims PBR X to authorize one project at the Refinery, the emission unit(s) subject to the PBR requirements may not emit more than 3 tons of NOx each

⁴⁴ *Order Partially Granting and Partially Denying Petition for Objection to Permit O1498*, Petition VI-2007-2 (May 28, 2009) at 4. Available electronically at:

<http://www.tceq.state.tx.us/assets/public/permitting/air/Announcements/epa-premcorder-O1498.pdf>

⁴⁵ Comments at 7.

⁴⁶ RTC at Response 2.B.

year. If Shell claims PBR X for two different projects at the Refinery, the emissions unit(s) authorized under PBR X may emit up to 6 tons of NOx each year. If ten different projects at the Refinery are authorized under PBR X, the emissions unit(s) authorized under this PBR may emit 30 tons of NOx each year. In order to determine how many tons of NOx emissions units covered by PBR X may emit each year, one must know how many projects have been authorized under PBR X.

Texas Title V permits incorporating authorizations under PBR X will list PBR X as an applicable permit in the New Source Review Authorizations table, and will identify specific emissions units authorized under PBR X. This however, is not enough information to allow the reader to determine how many projects have been authorized under PBR X. There is no way to tell, based on this information, if all the emissions units authorized under PBR X were part of a single project, or two projects, or thirty projects. Moreover, there is no way to tell for any particular emissions unit authorized under PBR X whether PBR X was used to authorize one project affecting the unit's emissions or many.

And so it is for each of the PBRs incorporated by reference into the Proposed Permit: Unless the TCEQ revises the Proposed Permit to specify how many projects have been authorized under each claimed PBR, neither the public nor federal regulators will be able to determine how much pollution Shell may emit under any of the incorporated PBRs. While Petitioners acknowledge that a different method of incorporating PBRs into the Proposed Permit—one which provides additional information about how many projects have been authorized under each PBR and which resolves ambiguities about how each PBR applies to affected emissions units—may be permissible, the Proposed Permit fails to identify and assure compliance with PBR requirements and the Administrator should object to it.

- If EPA contends that the Proposed Permit's method of incorporating PBR requirements assures compliance, Petitioners respectfully request that the Administrator identify, based on information in the Proposed Permit, the Statement of Basis, and the text of the incorporated PBRs, the cumulative total emissions authorized for all projects under each incorporated PBR.

2. Which Pollutants may Shell emit under claimed PBRs?⁴⁷

Several PBRs claimed by Shell may be used to authorize emissions of many different pollutants. For example, 30 Tex. Admin. Code § 106.261 (2003) may be used to authorize emissions of almost any pollutant. However, claiming a 106.261 PBR for a project does not authorize emissions of *all* such pollutants up to the limit identified in the rule. Rather, only emissions related to the particular project for which the PBR is claimed are authorized. Thus, one cannot determine based solely on the text of this rule—and others similar—which pollutants Shell is authorized to emit. Because the Proposed Permit does not include information necessary to determine which pollutants Shell is authorized to emit under each claimed PBR, the incorporated permit limits and operating requirements established by incorporated PBRs are not enforceable. Because incorporated PBR emission limits and requirements are not enforceable, the Proposed Permit is deficient.

- If EPA contends that the Proposed Permit's method of incorporating PBR requirements assures compliance, Petitioners respectfully request that the Administrator identify which pollutants Shell is authorized to emit from each emission unit covered by a 106.261 or 106.262 PBR or identify the provisions in the Proposed Permit that explain how a member of the public may obtain this information.

3. Which emission units are subject to PBR limits and requirements?⁴⁸

While the Proposed Permit incorporates the following PBRs and Standard Exemptions, it does not identify any emission unit or unit group authorized by these permits: 106 (5/4/1994),

⁴⁷ Comments at 6-7.

⁴⁸ Comments at 8.

106.262 (3/14/1997), 106.262 (11/1/2003), and 118 (5/4/1994).⁴⁹ Because the Proposed Permit does not even identify the unit or units authorized by and subject to the requirements of these PBRs and Standard Exemptions, it fails to unambiguously describe how these permits apply to individual emission units at the Refinery. Without this information, members of the public and federal regulators will not be able to determine which units must comply with these permits.⁵⁰ Moreover, even if an interested party is able to determine which emissions units should be subject to PBR or Standard Exemption requirements, a court is unlikely to enforce these requirements, because the Proposed Permit fails to identify them as applicable for any specific unit or units at the Refinery.⁵¹ Because this is so, the Proposed Permit fails to identify and assure compliance with all applicable requirements.

- If EPA contends that the Proposed Permit's method of incorporating PBR requirements assures compliance, Petitioners respectfully request that the Administrator identify the emission units covered by each of the PBRs and Standard Exemptions listed in the first paragraph of this section.

4. The Executive Director Dismissed Petitioners' Concerns about PBRs

The Executive Director failed to squarely address any of these arguments regarding problems arising from the TCEQ's method of incorporating PBRs by reference into the Draft Permit. Instead, he inexplicably dismissed these arguments as "beyond the scope of this FOP action, because they are arguments concerning the PBR authorization and not the FOP

⁴⁹ Proposed Permit at 550-577.

⁵⁰ *Objection to Title V Permit No. O1420, CITGO Refining and Chemicals Company, Corpus Christi Refinery—West Plant* (October 29, 2010) at ¶B.1 (draft permit is deficient because it fails to list any emissions units subject to incorporated PBRs); *Objection to Title V Permit No. O2164, Chevron Phillips Chemical Company, Philtex Plant* (August 6, 2010) at ¶ 7 (draft permit fails to meet 40 C.F.R. § 70.6(a)(1), because it does not list any emission units to be authorized under specified PBRs).

⁵¹ *United States v. EME Homer City Generation*, 727 F.3d 274, 300(3rd Cir. 2013) (explaining that the Court lacks jurisdiction to enforce a requirement omitted from a Title V permit).

authorization.”⁵² The Executive Director is wrong. Petitioners’ public comments squarely raised proper Title V issues, which echo concerns already expressed by EPA.⁵³ The Administrator should object to the Proposed Permit because the Executive Director failed to respond to our comments, and the Proposed Permit fails to include information necessary to assure compliance with incorporated PBRs.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to revise the Proposed Permit to include information necessary to determine how much pollution emission units at the Refinery may emit under each incorporated PBR, which pollutants emissions units at the Refinery may emit under each incorporated PBR, which emission units are subject to requirements of each incorporated PBR; and how each PBR that applies to an emission unit covered by another permit affects, modifies, or changes limits and requirements in the other permit.

C. The Proposed Permit Fails to Require Monitoring Sufficient to Assure Compliance with Applicable Requirements with NSR Emission Limits for Tanks, Wastewater Treatment Facilities, and Flares⁵⁴

1. Storage Tank and Wastewater Treatment Emissions⁵⁵

Protestants’ public comments explained that the Draft Permit’s applicable requirements table did not identify any monitoring or recordkeeping requirements for storage tanks, flares, and wastewater treatment facilities that would assure compliance with applicable emission caps for benzene and VOCs established by Permit No. 21262/PSDTX928.⁵⁶ With respect to emissions from storage tanks, Petitioners identified DIAL tests undertaken at the Refinery that indicated that emissions from tanks J327, J328, J331, and J332 emit four times as much VOC than predicted by emission factors Shell uses to demonstrate compliance with VOC limits in Permit

⁵² RTC at Response 2.B.

⁵³ Comments at 5-6, n14.

⁵⁴ *Id.* at 10-11.

⁵⁵ *Id.*

⁵⁶ *Id.* at 10

No. 21262/PSDTX928.⁵⁷ With respect to VOC emissions from Shell's wastewater area, testing revealed that actual emissions were 108 times higher than predicted by emission factors Shell uses to demonstrate compliance with its permit limits. Benzene emissions from the wastewater area were 67 times higher than emission factors would predict.⁵⁸

The Executive Director responded that emissions from Shell's storage tanks and wastewater treatment facilities are not calculated using generic emission factors and that sections from three applications Shell has filed, entitled "Flexible Permit Compliance Guidelines" and referenced in Special Condition 30 of Permit No. 21262/PSDTX928 establish a method for calculating emissions from these sources that assures compliance with applicable VOC and benzene emission caps.⁵⁹ These three documents are attached as Exhibits K, L, and M.

This response does not address Petitioners' concern, because these documents do not assure compliance with applicable VOC and benzene caps. This is so for several reasons. First, the various documents establish conflicting methods for calculating source emissions and Permit No. 21262/PSDTX928 does not indicate which method must be followed. For example, the compliance guidelines Shell filed in 1995 state that annual VOC emissions from Shell's wastewater treatment facilities are to be calculated using the following methods:

- a) The throughput through each of the tanks and total crude fed to the refinery will be determined annually. The tank emissions, fugitive emissions, flare emissions and biotreater emissions will be calculated using the methods detailed in the "Proposed Calculation Methodologies for the Shell Deer Park Manufacturing Complex Flexible Permit Application."
- b) Emissions from streams to be controlled according to Reg V requirements will be assumed to have emissions equivalent to $0.31 * \text{the total VOC throughput of}$

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ RTC at Response 5 ("And [21262/PSDTX928] condition 30 states compliance with the emission limits for each shall be demonstrated according to the "Source Specific Compliance Guidelines" outlined in the document entitled, "Flexible Permit Compliance Document", submitted with the permit applications dated August 15, 1995, February 10, 1997, and December 23, 1998").

the streams. The maximum VOC throughput of the streams will be used to determine the internal limit.⁶⁰

The 1995 guidelines also provide:

Speciation of streams will be done using one of the following methods, as appropriate:

- 1) Sampling or analysis
- 2) Process knowledge
- 3) Material balance
- 4) Process simulation⁶¹

Shell's 1997 application guidelines document does not contain any provisions regarding monitoring for Shell's wastewater treatment facilities.

Shell's 1998 application guidelines document states that annual emissions from Shell's wastewater treatment facilities shall be determined by:

[O]btaining actual sample and wastewater flow data. These data will be used as inputs to the Shell version of the EPA wastewater treatment emissions calculations model ("CHEMISETS"). The model and the actual data together will be used to determine the annual emissions from the wastewater treatment facilities. Please refer to the Confidential Volume of the Flexible Permit Application 21262 (December 1998) for more detailed information.

Speciation of steams will be done using one of the following methods as appropriate.

- 1) Sampling or analysis
- 2) Process knowledge
- 3) Material balance
- 4) Process simulation⁶²

The methods for calculating emissions from the wastewater treatment facilities described in these three documents are different from one another and rely on information included in Shell's confidential applications that Petitioners have been unable to review. Because these documents provide conflicting methods without indicating which should be used, and because

⁶⁰ Exhibit K at 24.

⁶¹ *Id.*

⁶² Exhibit M at 21.

the details of these methods is described in confidential application material that is unavailable to members of the public, they do not assure compliance with applicable requirements and members of the public have not been provided with sufficient information to fully assess potential problems with the methods Shell uses to monitor wastewater treatment facility emissions. Moreover, the Executive Director failed to demonstrate that Shell does not rely on generic emission factors to calculate wastewater treatment facility emissions as Petitioners allege, because detailed information about Shell's emissions calculations—information which may indicate that Shell uses generic emission factors—has been withheld from the public.

With respect to Petitioners' concern about tank emissions, the Executive Director responded that:

The calculation methodology used to determine VOC emissions from storage tanks is not a general emission factor. The equation currently accepted for use by the TCEQ and the Environmental Protection Agency was developed from rigorous testing following an approved protocol and requires the use of data specific to the storage tank and the material stored in the tank.⁶³

According to the Executive Director, this methodology is mandated by Special Condition 30 of Permit No. 21262 and that the Special Condition is sufficient to assure compliance with storage tank emission limits.⁶⁴ As explained above, Special Condition 30 of Permit No. 21262 incorporates representations included in various application documents Shell submitted to the agency. Petitioners have been unable to determine, based on these documents, what method Shell must actually use to calculate emissions from its Refinery storage tanks.⁶⁵

The Executive Director's response fails to adequately address Petitioners' comments, because the referenced permit condition does not actually specify how tank emissions must be calculated, and the Executive Director's response fails to identify the "approved" protocol that he

⁶³ RTC at Response 5.

⁶⁴ *Id.*

⁶⁵ Proposed Permit at Appendix B, Permit No. 3219/PSDTX974 at 13 (Special Condition 18G).

claims Shell must use to determine compliance with tank emission limits. Petitioners suspect that the protocol referenced by the Executive Director is EPA's Tanks 4.0. This is the same emission factor-based protocol that the Shell DIAL study cited in Petitioners' public comments calls into question.⁶⁶ Based on this study and other similar studies, Petitioners contend that emissions calculations based on general emission factors or modeled by EPA's Tanks 4.0 likely under-estimate actual tank emissions and that these monitoring methods do not assure compliance with applicable requirements and limits.

Because the Proposed Permit fails to specify how Shell must calculate tank emissions to demonstrate compliance with NSR permit tank emission limits and because—based on the limited information contained in the Executive Director's response to public comments—it appears that the emission factors that Shell uses to calculate emissions from its tanks are the very factors that Petitioners' public comments identified as unreliable, the Proposed Permit fails to assure compliance with storage tank emission limits and the Executive Director's response fails to address Petitioners' comments. For these reasons, the Administrator should object to the Proposed Permit.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to revise the Proposed Permit to directly specify a method for monitoring tank emissions sufficient to assure compliance with applicable limits. The Administrator must also ensure that monitoring requirements that apply to the Refinery are publicly available and not marked "confidential."

⁶⁶ Comments at 10; See Raun and Richner, *Study of the Accuracy of Emission Factors and Emission Estimating Methods Using the DIAL System, What does DIAL tell us about benzene and VOC emissions from Refineries?* at 36-47 (Summarizing Shell DIAL study results for storage tanks). Available electronically at: <http://www.epa.gov/ttnamt1/files/ambient/airtox/webinars/dial10152012.pdf> ("Shell Study Summary").

2. Flares⁶⁷

Flares at the Refinery must achieve 98% destruction efficiency and emissions from the flares must be maintained below hourly and annual emission limits contained in NSR permits incorporated by reference into the Proposed Permit. The Proposed Permit is deficient because it fails to assure compliance with the destruction efficiency requirements. Moreover, because Shell's NSR permit limit compliance demonstrations presume that its Deer Park flares consistently achieve 98% destruction efficiency, the Proposed Permit fails to assure compliance with these limits.

Petitioners cited various studies, including a study undertaken at the Refinery, that show additional monitoring is required to assure that flares like those at the Refinery continuously achieve the required destruction efficiency.⁶⁸ Petitioners commented that the Proposed Permit fails to require monitoring and instrumentation necessary to prevent over-steaming and to assure that operational adjustments will be made on the fly to address conditions known to diminish flare efficiency.⁶⁹ The Executive Director responded that the Proposed Permit contains monitoring requirements sufficient to assure compliance with applicable requirements for Shell's flares. To support this contention, the Executive Director explained:

- The presence of the pilot flame demonstrates that VOC emissions are combusted.

Monitoring the presence of a pilot flame is required in many federal rules, including:

40 CFR Part 60, Subparts K, III, NNN, QQQ, and RRR; 40 CFR 61, Subparts BB and

⁶⁷ Comments at 11.

⁶⁸ *Id.* at 11, n34.

⁶⁹ *Id.* ("The existing monitoring requirements for flares covered by the Draft Permit, identified in Attachment A, are not sufficient to assure compliance with the emission caps for VOCs, benzene during MSS events, and VOCs during MSS events established by Permits 21262 and PSDTX928. The emission caps assume that the covered flares will achieve 98% destruction efficiency. To achieve 98% destruction efficiency, a flare cannot be oversteamed, a common problem at many refineries. Avoiding this problem, requires careful monitoring of the heat value and chemical makeup of the flare to determine the minimum amount of steam needed. The Draft Permit must be amended to require the necessary instrumentation to: (1) measure the flow and chemical composition of the flare gas; (2) and precise steam controls to achieve 98% combustion efficiency").

FF; and 40 CFR Part 63, Subparts G, R, W, DD, and HH. To that end, the ED has determined that continuous pilot flame monitoring for flares is sufficient to demonstrate compliance with 30 Tex. Admin. Code 115.121 control efficiency and concentration limits for vent gas stream VOC emissions; and

- The flares are subject to the requirements of 40 C.F.R. § 60.18 and § 63.11. If a flare meets the requirements of § 60.18 or § 63.11, the destruction efficiency is assumed to be 98-99%. Also, the facility must certify compliance in accordance with 30 TAC § 122.146.⁷⁰

The Executive Director's response does not resolve our concerns. First, the fact that Shell is required to maintain a continuous pilot flame is not sufficient to assure that the Refinery flares actually achieve the required destruction efficiency. Even if a pilot flame is present, over steaming may result in reduced flare efficiency. Indeed, over steaming is only a real issue if the flare's pilot flame is maintained. If no pilot flame is present and flare waste gas is not actually combusted, maintenance of a proper steam-to-gas ratio will do little to improve the flare's pollution control performance. Second, as EPA has determined, monitoring requirements established by applicable MACT rules, including 63.11, are not sufficient to assure compliance with the requirements of those rules:

Refinery MACT 1 and 2 require flares used as an APCD to meet the operational requirements set forth in the General Provisions at 40 CFR 63.11(b). These General Provisions requirements specify that flares shall be: (1) steam-assisted, air-assisted, or non-assisted; (2) operated at all times when emissions may be vented to them; (3) designed for and operated with no visible emissions (except for periods not to exceed a total of 5 minutes during any 2 consecutive hours); and (4) operated with the presence of a pilot flame at all times. The General Provisions also specify requirements for both the minimum heat content of gas combusted in the flare and maximum exit velocity at the flare tip. The General Provisions only specify monitoring requirements for the presence of the pilot flame and the operation of a flare with no visible emissions. For all other

⁷⁰ RTC at Response 5.

operating limits, Refinery MACT 1 and 2 require an initial performance evaluation to demonstrate compliance but there are no specific monitoring requirements to ensure continuous compliance.⁷¹

Third, as EPA has determined, “flare performance tests conducted over the past few years suggest that the current regulatory requirements are insufficient to ensure that refinery flares are operating consistently with the 98-percent HAP destruction efficiencies[:]”⁷²

In general, flares used as APCD 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 overassisting with steam or air have become exacerbated, leading to the degradation of flare combustion efficiency.⁷³

Finally, that Shell’s Flares are subject to 60.18 requirements is not sufficient to assure compliance with flare control efficiency requirements, because Shell has failed to comply with 60.18 requirements. Shell recently entered into a consent decree to resolve violations at the Refinery alleged in EPA’s July 10, 2013 federal court compliant.⁷⁴ One of the violations identified by EIP is Shell’s “fail[ure] to have sufficient controls on steam flow to maintain Steam-to-Vent-Gas ratios within design parameters” necessary to assure compliance with 40 C.F.R. § 60.18 and other applicable regulations.⁷⁵ Under the consent decree, Shell must install the following monitoring systems and equipment to assure compliance with applicable regulatory standards:

⁷¹ Exhibit N, Proposed Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards (May 15, 2014) (“Proposed Rule”) at 131.

⁷² *Id.* at 131-132.

⁷³ *Id.* at 130.

⁷⁴ Exhibit O, Consent Decree, *United States of America v. Shell*, No. 4:13-cv-2009 (S.D. Tex. 2013) (“Consent Decree”).

⁷⁵ Exhibit P, Complaint, *United States of America v. Shell*, No. 4:13-cv-2009 (S.D. Tex. 2013) at Paragraphs 201-204.

- Vent Gas Flow Meter;
- Steam Flow Meter;
- Steam Control Equipment;
- Gas Chromatograph or a Net Heating Value Analyzer; and
- Meteorological Station

Shell must also automate control of the supplemental gas and steam addition in order to achieve the required high control efficiency. Using this equipment, Shell must maintain a steam to vent gas ration of S/VG ≤ 3.0 and add supplemental gas when wind effect makes the flare unstable.⁷⁶ This equipment and these operational requirements are consistent with monitoring Petitioners identified in their public comments, and which the studies Petitioners cited indicate are necessary to ensure flares achieve a high level of destruction efficiency. The Administrator should object to the Proposed Permit and require the TCEQ to update it to include flare monitoring requirements consistent with those Shell has already agreed to implement. These measures are necessary to assure compliance with emission limits and requirements that apply to the Refinery flares.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEO to revise the Proposed Permit to include flare monitoring requirements consistent with the Shell Consent Decree to prevent over-steaming and assure compliance with applicable requirements and limits.

D. The Proposed Permit Impermissibly Uses the Permit Shield Provisions⁷⁷

Petitioners explained in their public comments that the permit record did not include meaningful information demonstrating that the negative applicability determinations listed in the

⁷⁶ See Consent Decree and <http://www2.epa.gov/enforcement/shell-deer-park-settlement#overview>

⁷⁷ Comments at 8-10.

Draft Permit Permit Shield were properly made.⁷⁸ As an example, Petitioners explained that the Permit Shield provision exempting duct burners CG1 and CG2 from 40 C.F.R. Part 60, Subpart D requirements was based on incorrect information. According to the Draft Permit, these burners are exempt from Subpart D, because the heat input of each unit is less than 250 MMBtu/hr. However, the MAERT for PSDTX815 indicates that the burners may be operated at a firing rate of up to 265 MMBtu/hr. In response to this information, the Executive Director “updated” the Basis of Determination for these to state that 40 C.F.R. Part 60, Subpart D does not apply, because the “[s]team generating unit[s] [are] greater than 73 MW (250 MMBtu/hr) and [were] constructed after June 19, 1986.”⁷⁹ This updated language does not demonstrate that Subpart D is inapplicable. Indeed, 40 C.F.R. § 60.40, Subpart D states that it applies to “[e]ach fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour)” constructed or modified after August 17, 1971.⁸⁰ The Executive Director’s response to our comments heightens our concern that the Proposed Permit’s Permit Shield provisions are not justified. Though we provided the Executive Director with an opportunity to provide us with the information he believes supports his negative applicability determinations, the Executive Director declined to do so.⁸¹ The Executive Director contends that he need not explain his decision to grant Shell’s request for a permit shield, because he has broad discretion to determine whether a permit shield should be granted.⁸² This response is not sufficient. Information justifying each of the permit shield provisions should have been included as part of Shell’s application. Without this information members of the public and EPA cannot

⁷⁸ *Id.* at 9.

⁷⁹ RTC at Response 4.

⁸⁰ 40 C.F.R. §§ 60.40(a)(1) and (c).

⁸¹ Comments at 9.

⁸² RTC at Response 4 (“Section 122.142(f), Permit Content Requirements, allows the ED discretion to grant a permit shield for specific emission units at the request of an applicant”).

were properly made.⁸³ Because Shell's application does not include information sufficient to demonstrate that the permit shield provisions in the Proposed Permit were properly granted, because the Executive Director declined to identify the information he relied upon to make negative applicability determinations reflected in the Permit Shield, and because at least one of the Permit Shield provisions is not based on relevant information, the Administrator should object to the Proposed Permit.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to revise the Proposed Permit to specific information sufficient to demonstrate that each negative applicability determination reflected in the Proposed Permit's Permit Shield is proper. The Administrator should also require the TCEQ to identify support in the permit record that satisfies 30 Tex. Admin. Code § 122.148(b) requirements for granting a permit shield.

E. The Proposed Permit Fails to Require Shell to Obtain SIP-Approved Authorizations for Qualified Facilities Changes at the Refinery⁸⁴

Shell has used Texas's disapproved Qualified Facilities program rather instead of obtaining permit amendments as required by Texas's SIP-approved rules to authorize several modifications at the Refinery.⁸⁵ While Texas's Qualified Facilities rules may provide a state law instrument for authorizing changes at the Refinery, they do not relieve Shell of its duty to comply with all permitting requirements contained in Texas's federally approved SIP. The Texas SIP establishes the permitting process owners and operators in Texas must follow to authorize minor and major modifications. Thus, Shell's failure to obtain SIP approved permits authorizing projects at the Refinery is an ongoing violation of the SIP, even if none of the changes triggered major NSR permitting requirements. To assure compliance with the Texas

⁸³ 30 Tex. Admin. Code § 122.148(b) ("In order for the executive director to determine that an emission unit qualifies for a permit shield, all information required by § 122.132(e)(2), (3) and (8) of this title . . . must be submitted with the permit application").

⁸⁴ Comments at 11-12.

⁸⁵ Exhibit Q, list of Qualified Facilities projects at the Refinery.

SIP and to address Shell's SIP violations, the Proposed Permit must establish a schedule for Shell to obtain SIP-approved permits for its Qualified Facilities changes. Because the Proposed Permit does not contain a compliance schedule, it is deficient and the Administrator should object to it.

The Executive Director's response to public comments fails to address this argument altogether. While the Executive Director offers a lengthy discussion of certain aspects of the TCEQ's Qualified Facilities program, this discussion never manages to acknowledge or address the concerns we actually raised in our public comments: The Executive Director does not admit or deny that Shell has violated the Texas SIP, does not provide any information showing that Shell has received SIP-approved authorizations for qualified facilities changes at Refinery, does not question the sufficiency of evidence provided in Petitioners' comments, and does not provide information sufficient to show that the changes at the Refinery did not trigger minor NSR SIP permitting obligations.⁸⁶

Instead of addressing our comments, the Executive Director is content to describe the history of its negotiations with EPA regarding the Qualified Facilities program. The bottom line of this discussion, which is *irrelevant* to Petitioners' comments, seems to be that EPA should approve Texas's Qualified Facilities program as part of the Texas SIP. The Executive Director's opinions regarding the approvability of the TCEQ's Qualified Facilities program is outside the

⁸⁶ And while the Executive Director made clear his opinion that circumvention of major NSR permitting requirements is not allowed under the TCEQ's Qualified Facilities rules, he did not specifically state that Qualified Facilities projects at the Refinery have not triggered NNSR permitting requirements. RTC at Response 6. Specifically, with respect to a Qualified Facilities project that involved a 95.4 tpy increase in VOC emissions, the Executive Director claims that the “[n]et increases and decreases did not trigger PSD.” Net increases in VOC emissions from the Refinery cannot trigger PSD, because the Refinery is located in the Harris County non-attainment region. Significant increases in actual emissions of a non-attainment pollutant, like VOC in Harris County, trigger NNSR requirements and not PSD requirements. If, as the Executive Director's response indicates, project increases were measured against PSD significance thresholds and not NNSR significance threshold, then Shell did not conduct a proper netting demonstration and the TCEQ's major NSR applicability determination applied the wrong criteria.

scope of this FOP action *because these are opinions about the SIP approval process and not the Proposed Permit.*

The Executive Director also explains that:

It is not appropriate, necessary, or legally required under either 40 CFR Part 70 or the EPA approved federal operating permit program in Texas to require a condition in the operating permit to require a source to prepare and submit a written analysis of any future change/modification to ensure that minor and/or major NSR requirements under the SIP have not been triggered. The federally approved SIP already requires this analysis as part of any future NSR review.⁸⁷

This response supports rather than refutes Petitioners' argument that the Proposed Permit should include a compliance schedule for Shell's failure to obtain SIP approved authorizations for Qualified Facilities changes at the Refinery. Petitioners have not requested that the TCEQ add a condition to the Proposed Permit requiring Shell to prepare a written analysis for future changes/modifications to the Refinery. Indeed, as the Executive Director points out, that is already required under Texas's SIP-approved permitting rules. *However, the TCEQ and Shell failed to follow those rules to authorize changes that have already been made to the Refinery.* Because Shell failed to follow the procedures that the Executive Director admits are part of the SIP to authorize major and/or minor projects at the Refinery, Shell has violated the Texas SIP. Because Shell violated the SIP, the Proposed Permit must include a schedule for Shell to correct this non-compliance. Because the Executive Director failed to address our claim the Shell has violated the SIP, because his response to our comments tends to support our claim that Shell has violated the Texas SIP, and because the Proposed Permit does not include a compliance schedule addressing these violations, the Proposed Permit is deficient and the Administrator should object to it.

⁸⁷ RTC at Response 6.

In addition to these irrelevant remarks, the Executive Director also blames EPA for Shell's failure to comply with Texas SIP permitting requirements:

EPA's delay in acting on the Qualified Facility rules, the approval of the state's federal operating permit program and confusion regarding whether the approved federal operating permit program provided federal enforceability for Qualified Facility changes, resulted in a very long period of detrimental reliance on this permit mechanism by regulated entities and the TCEQ.⁸⁸

This portion of the Executive Director's response is not only irrelevant, it is disingenuous. Even though the Executive Director's remarks are irrelevant, we offer the following response out of concern that the Administrator may be reluctant to grant our petition on this issue if she believes that EPA is culpable for the violation Petitioners identify.

The Executive Director's response is irrelevant, because it does not matter whether EPA is partially responsible for Shell's non-compliance. If Shell has violated the SIP, the Title V must include a compliance schedule to correct this non-compliance. If Shell has not violated the SIP, the Executive Director should have explained that in his response to our public comments. In either case, the Executive Director's attempt to blame EPA for the TCEQ's failure to properly implement and enforce its SIP is disingenuous and misleading.

While the Clean Air Act affords states broad discretion to develop their own SIPs, it also provides that EPA must approve state SIPs and SIP revisions before they may be implemented. Just as the Clean Air Act limits EPA's authority to dictate SIP particulars to the states, it also restricts states' authority to unilaterally change federally-approved SIP requirements. These particular roles and limitations must be respected if the Clean Air Act's system of "cooperative federalism" is to work. Thus, EPA must approve SIP revisions that meet Clean Air Act requirements and the TCEQ must live within the limits of its federally approved SIP. This is so

⁸⁸ RTC at Response 6.

even if Texas has submitted an application to revise its SIP and EPA has failed or refused to timely act on it. SIP revisions are not effective until approved.⁸⁹

Where EPA fails to timely act on a SIP revision, the Clean Air Act provides a remedy: The state may obtain a federal court order compelling EPA to act.⁹⁰ The TCEQ must accept the remedy the law provides and may not use EPA's failure to timely act on a SIP revision as a pretext to act beyond its authority. Because Texas's Qualified Facilities program modifies SIP obligations, the TCEQ may not implement it until it is approved by EPA.⁹¹ The TCEQ's implementation of this unapproved program violates both the spirit and the letter of the Clean Air Act. Where the TCEQ acts beyond its authority and allows applicants to rely on state-only rules to circumvent SIP requirements, the TCEQ bears responsibility for the unfortunate consequences that result.

The Executive Director's attempt to foist the blame for Texas's improper implementation of its permitting authority and Shell's failure to obtain permits required by federal law is not only baseless, it is also disingenuous. The TCEQ's cavalier disregard for the SIP approval process is not a product of EPA's delay, but arises from the agency's radical position that the SIP approval process is itself unconstitutional. As the TCEQ explained in its 2009 report to the Texas State Legislature's Sunset Commission:

The TCEQ does not delay rule effectiveness until EPA SIP approval. To do so might arguably be an unconstitutional delegation of state authority to the federal government. If the EPA did not approve the changes, then the state would continue to be obligated to enforce the federal requirements and would be required to change the rules to make them acceptable under federal law.⁹²

⁸⁹ 40 C.F.R. § 51.105.

⁹⁰ 42 U.S.C. § 7604(a)(2).

⁹¹ 42 U.S.C. § 7410(i).

⁹² Texas Commission on Environmental Quality Self-Evaluation Report, (October, 2009) at 474. Available electronically at: https://www.tceq.texas.gov/assets/public/comm_exec/pubs/sfr/089/089.pdf

So, the TCEQ's implementation of unapproved programs has nothing to do with EPA's failure to act on its SIP revisions. Indeed, the TCEQ does not even wait for EPA to miss its deadlines before implementing unapproved programs. If Texas believes that the Clean Air Act's scheme of cooperative federalism—which accords different but complementary duties and powers to federal and state agencies—is unconstitutional, Texas should challenge that scheme in court. If Texas believes that it is not bound by the Clean Air Act, Texas should not blame EPA for its failure to comply with the Act's requirements. If Texas believes that EPA does not have the authority to disapprove Texas regulations and laws that modify SIP obligations in the first place, and it does not wait for approval before implementing these programs, it cannot credibly claim that EPA's failure to timely approve a particular program has any bearing on the agency's decision to implement that program.

Regardless of Texas's position with respect to the constitutionality of the Clean Air Act's cooperative federalism, when the TCEQ violates the SIP or issues permits that do not comply with federal requirements, EPA must act to correct that non-compliance. Here, the Administrator must act to require the TCEQ to establish a schedule for Shell to obtain SIP approved permits authorizing modifications to the Refinery made pursuant to the TCEQ's disapproved Qualified Facilities program.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to revise the Proposed Permit to include a schedule for Shell to obtain SIP-approved permit authorizations for Qualified Facilities projects at the Deer Park Chemical Plant.

F. The Executive Director's Revision to Draft Permit, Special Condition 29 is Improper⁹³

The Draft Permit contained the following Special Condition:

The permit holder shall use a SIP approved permit amendment process to convert the Shell Oil Company flexible permit No. 21262 into a permit issued under 30 Tex. Admin. Code Chapter 116, Subchapter B. The permit holder shall submit to TCEQ a NSR SIP permit amendment application in accordance with 30 TAC Chapter 116 Subchapter B no later than January 20, 2102.⁹⁴

After the close of the public comment period, the Executive Director added the following text to this Special Condition:

If the Texas Flexible Permits Program becomes SIP-approved prior to the conversion to 30 TAC 116 Subchapter B permit, the permit holder may choose to continue the permit conversion or to continue to operate under the existing flexible permit, with or without revisions.⁹⁵

Though the Executive Director identified this revision in his response to public comments, he did not explain why the revision was necessary or demonstrate that it was proper.⁹⁶ This condition is meant to address Shell's failure to obtain SIP-approved preconstruction authorizations for projects at the Refinery carried out under Shell's non-SIP-approved flexible permit. The Administrator should object to the revised condition, because it does not address Shell's failure to comply with Texas SIP permitting requirements and it fails to assure compliance with the SIP.

Petitioners suspect that the Executive Director revised the Draft Permit, because he believes that the condition requiring Shell to obtain SIP-approved permits will become moot if EPA finalizes its proposed conditional approval of Texas's Flexible Permit program SIP

⁹³ This issue was not raised in Petitioners' public comments, because the issue did not arise until after the close of the comment period.

⁹⁴ Draft Permit at 20, Special Condition 29.

⁹⁵ Proposed Permit at 21, Special Condition 28.

⁹⁶ RTC at Modifications Made from the Draft to the Proposed Permit ("Term and condition 28 was updated to allow the applicant to proceed with the Subchapter B permit application or continue operating under the existing flexible permit 21262, depending on whether the Flexible Permits Program becomes SIP approved").

revision.⁹⁷ If so, he is incorrect. Texas's Flexible Permit program was not a part of the Texas SIP when Shell carried out its flexible permit modifications.⁹⁸ Shell did not obtain SIP-approved authorizations for those projects. EPA's approval of Texas's Flexible Permit program cannot provide federal authorization for projects carried out under flexible permits prior to the program's approval.⁹⁹ Thus, EPA's approval of Texas's Flexible Permit program cannot remedy Shell's failure to obtain a SIP-approved authorization for its flexible permit projects. Whether or not EPA finalizes its proposed approval of the program, Shell must still submit an application and obtain a SIP-approved permit authorizing projects at the Refinery. Thus, the Executive Director's revision of Draft Permit Special Condition 29 fails to assure compliance with Texas SIP permitting requirements. The Proposed Permit is deficient and the Administrator should object to it.

Requested Revision to the Proposed Permit:

The Administrator should require the TCEQ to remove the language added to Proposed Permit, Special Condition 28 after the close of the public comment period.

G. Credible Evidence¹⁰⁰

In 1997, EPA promulgated revisions to 40 C.F.R. Parts 51, 52, 60, and 61 to clarify that nothing shall preclude the use of any credible evidence or information in demonstrating

⁹⁷ *Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program*, 79 Fed. Reg. 8368 (February 12, 2014).

⁹⁸ 40 C.F.R. § 51.105 ("Revisions of a plan, or any portion thereof, will not be considered part of an applicable plan until such revisions have been approved by the Administrator in accordance with this part").

⁹⁹ 42 U.S.C. § 7410(i); 40 C.F.R. § 51.05; *Train v. Natural Res. Def. Council, Inc.*, 421 U.S. 60, 92 (1975); *United States v. Ford Motor Co.*, 914 F.2d 1099, 1102-03 (6th Cir. 1987); *Sierra Club v. Tennessee Valley Authority*, 430 F.3d 1337, 1347 (11th Cir. 2005); See also 79 Fed. Reg. 18183, 18185 (citing similar authority, EPA explains that its approval of Texas's Pollution Control Project Standard Permit SIP revision cannot provide federal authorizations for projects registered before EPA approved the program).

¹⁰⁰ The United States District Court Order giving rise to this basis for objection was issued after the close of the Draft Permit public comment period.

compliance or noncompliance with federal emission limits.¹⁰¹ The purpose of this rule is to allow any credible evidence to be used in demonstrating compliance or noncompliance.¹⁰² EPA explained that the “revisions do not call for the creation or submission of any new emissions or parametric data, but rather address the role of existing data in enforcement actions and compliance certifications” and that EPA “in no way intends to alter the underlying emission standards.”¹⁰³

The Credible Evidence rule also prohibits states from barring the use of any credible evidence for demonstrating compliance:

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, the plan must not preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.¹⁰⁴

EPA has emphasized that Title V permits may not be written to limit the types of evidence that may be used to prove violations of emissions standards and that Title V provisions that purport to establish such limits are “null and void.”¹⁰⁵ Because these rules clearly indicate that credible evidence may be used to demonstrate violations of Title V permit requirements, and because Texas permits do not contain any language indicating that credible evidence may not be used by citizens or the EPA to demonstrate violations, Petitioners did not argue during the public comment period that the Draft Permit must affirmatively include a condition stating that credible evidence may be used in this way. However, after the Draft Permit public comment period

¹⁰¹ 62 Fed. Reg. 8314 (February 24, 1997); 40 C.F.R. §§ 52.12(c), 60.11(g) and 61.12(e); *Natural Res. Def. Council*, 194 F.3d 130 at 134 (D.C. Cir. 1999).

¹⁰² *Natural Res. Def. Council*, 194 at 134.

¹⁰³ *Id.*, citing 62 Fed. Reg. 8314-16.

¹⁰⁴ 40 C.F.R. § 51.212(c)(emphasis added).

¹⁰⁵ 62 Fed. Reg. 54900, 54907-8 (October 22, 1997).

closed, the United States District Court for the Western District of Texas issued an order interpreting a Texas Title V permit. According to the Court, “the Credible Evidence Rule does not apply to citizen lawsuits” and that “a concerned citizen is limited to the compliance requirements, as defined in the Title V permit, when pursuing a civil lawsuit for CAA violations.”¹⁰⁶ While Petitioners believe that the Court erred in its decision, in order to assure that applicable requirements are enforceable and consistent with the Credible Evidence Rule and EPA’s assurances in the preamble to the CAM rule, the Administrator must object to the Proposed Permit and require the TCEQ to clarify that credible evidence may be used to enforce the terms and conditions of the Proposed Permit in any enforcement action, including those actions brought pursuant to the Clean Air Act’s citizen suit provisions at 42 U.S.C. § 7604.

Requested Revision to the Proposed Permit:

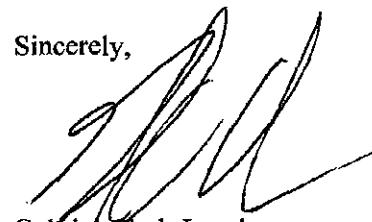
To assure that applicable requirements in the Proposed Permit are practicably enforceable, the Administrator should require the TCEO to revise the Proposed Permit to include the following condition: “Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate non-compliance with any term of this permit.”

VI. CONCLUSION

For the foregoing reasons, and as explained in Petitioners’ timely-filed public comments, the Proposed Permit is deficient. The Executive Director’s response to Petitioners’ public comments was also insufficient. Accordingly, Petitioners respectfully request that the Administrator object to the Proposed Permit.

¹⁰⁶ Exhibit R, Order Granting Motion for Partial Summary Judgment, *Sierra Club v. Energy Future Holdings Corp.*, No. W-12-CV-108 (W.D. Tex. February 10, 2014) at 15-16.

Sincerely,



Gabriel Clark-Leach
Environmental Integrity Project
1002 West Avenue, Suite 305
Austin, TX 78701
(512) 637-9477 (phone)
(512) 584-8019 (fax)
gclark-leach@environmentalintegrity.org